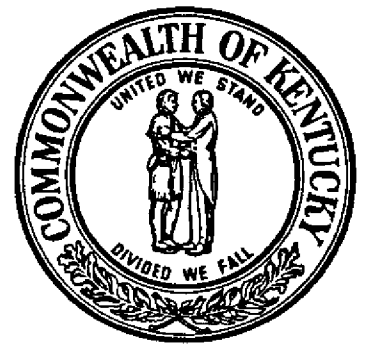


ADMINISTRATIVE REGISTER OF KENTUCKY



LEGISLATIVE RESEARCH COMMISSION
Frankfort, Kentucky

VOLUME 33, NUMBER 12
FRIDAY, JUNE 1, 2007

ARRS – JUNE 7, 2007 TENTATIVE AGENDA..... 3583
REGULATION REVIEW PROCEDURE 3585

EMERGENCIES:
Board of Nursing 3586

AS AMENDED:
Kentucky Higher Education Assistance Authority 3589
Department of Veterans' Affairs 3593
State Board of Elections... 3595
Department of Military Affairs 3597
Board of Pharmacy..... 3602
Department of Fish and Wildlife 3603
EPPC: Division of Waste Management 3652
EPPC: Division for Air Quality..... 4159
Department of Transportation..... 4162
EPPC:Board of Tax Appeals 4164
EPPC: Office of Housing, Buildings and Construction 4167
Cabinet for Health and Family Services..... 4186

AMENDED AFTER COMMENTS:
EPPC: Office of Housing, Buildings and Construction 4191

PROPOSED AMENDMENTS RECEIVED THROUGH NOON, MAY 15, 2007:
Personnel Board..... 4195
Board of Pharmacy..... 4201
Board of Lic. for Professional Engineers & Land Surveyors..... 4203
Board of Nursing 4205
Real Estate Appraisers Board 4211
Office of Homeland Security..... 4214
Department of Fish and Wildlife Resources..... 4224
EPPC: Division for Air Quality..... 4227
Department of Corrections 4241
Department of State Police..... 4249
Kentucky Law Enforcement Council 4253
Office of Insurance 4258
Cabinet for Health and Family Services..... 4259

NEW ADMINISTRATIVE REGULATIONS RECEIVED THROUGH NOON, AMAY 15, 2007:

Board of Medical Licensure 4269
EPPC: Division for Air Quality 4270
Office of Insurance 4290

MAY 8, 2007 MINUTES OF THE ARRS 4314
OTHER COMMITTEE REPORTS None

CUMULATIVE SUPPLEMENT

Locator Index - Effective Dates L - 2
KRS Index..... L - 24
Subject Index..... L - 52

MEETING NOTICE: ARRS

The Administrative Regulation Review Subcommittee is tentatively scheduled to meet June 7, 2007 at 10 a.m. in room 149 Capitol Annex. See tentative agenda on pages 3583-3584 of this Administrative Register.

Part 2 of 3

The **ADMINISTRATIVE REGISTER OF KENTUCKY** is the monthly supplement for the 2006 Edition of **KENTUCKY ADMINISTRATIVE REGULATIONS SERVICE**.

HOW TO CITE: Cite all material in the **ADMINISTRATIVE REGISTER OF KENTUCKY** by Volume number and Page number. Example: Volume 33, Kentucky Register, page 318 (short form: 33 Ky.R. 318).

KENTUCKY ADMINISTRATIVE REGULATIONS are codified according to the following system and are to be cited by Title, Chapter and Regulation number, as follows:

Title	Chapter	Regulation
806	KAR	50: 155
Cabinet, Department, Board, or Agency	Office, Division, or Major Function	Specific Regulation

ADMINISTRATIVE REGISTER OF KENTUCKY

(ISSN 0096-1493)

© 2007 Legislative Research Commission, All Rights Reserved

The Administrative Register of Kentucky is published monthly by the Legislative Research Commission, 700 Capitol Avenue, Room 300, Frankfort, Kentucky 40601. Subscription rate, postpaid in the United States: \$96 (plus 6% Kentucky sales tax) per year for 12 issues, beginning in July and ending with the June issue of the subsequent year. Periodical postage paid at Frankfort, Kentucky.

POSTMASTER: Send address changes to Administrative Register of Kentucky, 700 Capitol Avenue, Room 64, State Capitol, Frankfort, Kentucky 40601.

KENTUCKY LEGISLATIVE RESEARCH COMMISSION

Chairmen

Senator David L. Williams
Senate President

Representative Jody Richards
House Speaker

Senate and House Members

Senator Katy Kratz Stine
President Pro Tem

Representative Larry Clark
Speaker Pro Tem

Senator Dan Kelly
Majority Floor Leader

Representative Rocky Adkins
Majority Floor Leader

Senator Ed Worley
Minority Floor Leader

Representative Jeffrey Hoover
Minority Floor Leader

Senator Richie Sanders, Jr.
Majority Caucus Chairman

Representative Charlie Hoffman
Majority Caucus Chairman

Senator Johnny Ray Turner
Minority Caucus Chairman

Representative Bob DeWeese
Minority Caucus Chairman

Senator Daniel Seum
Majority Whip

Representative Rob Wilkey
Majority Whip

Senator Joey Pendleton
Minority Whip

Representative Stan Lee
Minority Whip

Robert Sherman, Director

Mike Robinson, Printing and Publications Officer

ADMINISTRATIVE REGULATION REVIEW SUBCOMMITTEE

Members

Senator Richard L. "Dick" Roeding, Co-Chair
Senator Alice Kerr
Senator Joey Pendleton
Senator Gary Tapp
Representative Robert R. Damron
Representative Danny R. Ford
Representative Jimmie Lee

Staff

Dave Nicholas
Emily Caudill
Donna Little
Kara Daniel
Emily Harkenrider
Jennifer Beeler
Ellen Steinberg

surface impoundment units subject to Section 10(1) of this administrative regulation shall submit a response action plan to the cabinet when submitting the proposed action leakage rate under Section 2 of this administrative regulation. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in subsection (2) of this section.

(2) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(a) Notify the cabinet in writing of the exceedance within seven (7) days of the determination;

(b) Submit a preliminary written assessment to the cabinet within fourteen (14) days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short term actions taken and planned;

(c) Determine to the extent practicable the location, size, and cause of any leak;

(d) Determine whether waste receipt shall cease or be curtailed, whether any waste shall be removed from the unit for inspection, repairs, or controls, and whether or not the unit shall be closed;

(e) Determine any other short term and longer term actions to be taken to mitigate or stop any leaks, and

(f) Within thirty (30) days after the notification that the action leakage rate has been exceeded, submit to the cabinet the results of the analyses specified in subsection (2)(c), (d), and (e) of this section, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the cabinet a report summarizing the results of any remedial actions taken and actions planned.

(3) To make the leak and remediation determinations in subsection (2)(c), (d), and (e) of this section, the owner or operator shall:

(a)1. Assess the source of liquids and amounts of liquids by source;

2. Conduct a fingerprint, hazardous constituent, or other analysis of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

3. Assess the seriousness of any leaks in terms of potential for escaping into the environment, or

(b) Document why such assessments are not needed.

Section 4. Waste Analysis and Trial Tests. In addition to the waste analyses required by Section 4 of 401 KAR 35.020, whenever a surface impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment, the owner or operator shall, before treating the different waste or using the different process:

(a) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot scale tests), or

(b) Obtain written, documented information on similar treatment of similar waste under similar operating conditions, to show that this treatment will comply with Section 8(2) of 401 KAR 35.020.

Section 5. Monitoring and Inspections. (1) The owner or operator shall inspect:

(a) The freeboard level at least once each operating day to ensure compliance with Section 2 of this administrative regulation; and

(b) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

(2)(a) An owner or operator required to have a leak detection system under Section 10(1) of this administrative regulation shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(b) The amount of liquids removed from each leak detection

system sump shall be recorded at least monthly throughout the postclosure period.

(3) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration or failures in the impoundment.

Section 6. Closure and Postclosure Care. (1) At closure, the owner or operator shall:

(a) Remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Section 3(4) of 401 KAR 31.010 applies; or

(b) Close the impoundment and provide postclosure care for a landfill under 401 KAR 35.070 and Section 4 of 401 KAR 35.230 including the following:

1. Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

2. Stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

3. Cover the surface impoundment with a final cover designed and constructed to:

a. Provide long term minimization of the migration of liquids through the closed impoundment;

b. Function with minimum maintenance;

c. Promote drainage and minimize erosion or abrasion of the cover;

d. Accommodate settling and subsidence so that the cover's integrity is maintained; and

e. Have a permeability loss than or equal to the permeability of any bottom liner system or natural subsoils present.

(2) In addition to the requirements of 401 KAR 35.070 and Section 4 of 401 KAR 35.230 during the postclosure care period, the owner or operator of a surface impoundment in which wastes, waste residues, or contaminated materials remain after closure in accordance with the provisions of subsection (1)(b) of this section shall:

(a) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(b) Maintain and monitor the leak detection system in accordance with Sections 5(2) and 10(3)(b)4 and (3)(c) of this administrative regulation and comply with all other applicable leak detection system requirements of this chapter.

(c) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of 401 KAR 35.060, and

(d) Prevent run on and run off from eroding or otherwise damaging the final cover.

Section 7. Special Requirements for Ignitable or Reactive Waste. Ignitable or reactive waste shall not be placed in a surface impoundment unless the waste and impoundment satisfy all applicable requirements of 401 KAR Chapter 37, and

(1) The waste is treated, rendered or mixed before placement in the impoundment so that the resulting waste mixture no longer meets the definition of ignitable or reactive waste under Section 2 or 4 of 401 KAR 31.030, or

(2) The surface impoundment is used solely for emergencies.

Section 8. Special Requirements for Incompatible Wastes. Incompatible wastes or incompatible wastes and materials (see 401 KAR 35.330 for examples) shall not be placed in the same surface impoundment.

Section 9. Recordkeeping. The owner or operator shall record the level of liquid in the surface impoundment every day with respect to a fixed reference elevation.

Section 10. Design and Operating Requirements. (1) The owner or operator of each new surface impoundment on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992, and each replacement of an exist-

ing surface impoundment unit that is to commence reuse after July 20, 1992 shall install two (2) or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with Section 10(3) of the administrative regulation (unless exempted under Section 10(4) or (6) of this administrative regulation). "Construction commences" is defined in Section 1(89) of 401 KAR 35-005.

(2) The owner or operator of each unit referred to in subsection (1) of this section shall notify the cabinet at least sixty (60) days prior to receiving waste. The owner or operator of each facility submitting notice shall file a Part B application within six (6) months of the receipt of such notice by the cabinet.

(3) The owner or operator of any replacement surface impoundment unit is exempt from subsection (1) of this section if:

(a) The existing unit was constructed in compliance with design standards of Section 3004(e)(1)(A)(i) and (e)(5) of RCRA, and

(b) There is no reason to believe that the liner is not functioning as designed.

(4) The double liner requirement set forth in subsection (1) of this section may be waived by the cabinet for any monofill, if:

(a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes are considered hazardous only because they exhibit toxicity characteristics classifying them under EPA hazardous waste numbers D004 through D017 (see Section 5 of 401 KAR 31-030); and

(b) The owner or operator demonstrates that:

1. The monofill:

a. Has at least one (1) liner, as defined in 401 KAR 35-005, for which there is no evidence that such liner is leaking. In the case of any surface impoundment which has been exempted from the requirements of subsection (1) of this section on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment the owner or operator shall remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment shall comply with appropriate postclosure requirements, including but not limited to ground water monitoring and corrective action;

b. Is located more than one fourth (1/4) mile from an underground source of drinking water (as that term is defined in 401 KAR 35-005), and

c. Is in compliance with generally applicable ground water monitoring requirements for facilities with permits issued in accordance with 401 KAR Chapter 38; or

2. The monofill is located, designed and operated so as to assure that there shall be no migration of any hazardous constituent into ground water or surface water at any future time.

3. In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of subsection (1) of this section and in good faith for compliance with subsection (1) of this section and with guidance documents governing liners and leachate collection systems under subsection (1) of this section, no liner or leachate collection system which is different from that which was so installed pursuant to subsection (1) of this section shall be required for such unit by the cabinet when issuing the first permit to such facility, except that the cabinet not be precluded from requiring installation of a new liner when the cabinet has reason to believe that any liner installed pursuant to the requirements of subsection (1) of this section is leaking.

(5) A surface impoundment shall maintain enough freeboard to prevent any overtopping of the dike by overflowing, wave action, or a storm. There shall be at least sixty (60) centimeters (approximately two (2) feet) of freeboard.

(6) All earthen dikes shall have a protective cover, such as grass, shale, or rock to minimize wind and water erosion and to preserve their structural integrity.

(7) Surface impoundments that are newly subject to hazardous waste management requirements due to the promulgation of additional listings or characteristics for the identification of hazardous waste shall be in compliance with subsections (1), (3), and (4) of

this section not later than 48 months after the promulgation of the additional listing or characteristic. This compliance period shall not be cut short as the result of the promulgation of land disposal prohibitions under 401 KAR Chapter 37 or the granting of an extension to the effective date of the prohibitions pursuant to Section 5 of 37-010, within the forty-eight (48) month period.

Section 11. Air Emission Standards. The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the requirements of 401 KAR 35:281.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:210. Waste piles (Interim Status) [(15)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart L

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, ~~40 C.F.R. 265 Subpart L~~

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes requirements for [implemente] [To implement] [provisions of KRS 224.46-520 relative to] waste piles qualifying for Interim status.

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 265.250, effective July 1, 2005.

Section 2. Protection from Wind. The subject matter shall be governed by 40 C.F.R. 265.251, effective July 1, 2005.

Section 3. Waste Analysis. The subject matter shall be governed by 40 C.F.R. 265.252, effective July 1, 2005.

Section 4. Containment. The subject matter shall be governed by 40 C.F.R. 265.253, effective July 1, 2005.

Section 5. Design and Operating Requirements. The subject matter shall be governed by 40 C.F.R. 265.254, effective July 1, 2005.

Section 6. Action Leakage Rate. The subject matter shall be governed by 40 C.F.R. 265.255, effective July 1, 2005.

Section 7. Special Requirements for Ignitable or Reactive Wastes. The subject matter shall be governed by 40 C.F.R. 265.256, effective July 1, 2005.

Section 8. Special Requirements for Incompatible Wastes. The subject matter shall be governed by 40 C.F.R. 265.257, effective July 1, 2005.

Section 9. Closure and Post-closure Care. The subject matter shall be governed by 40 C.F.R. 265.258, effective July 1, 2005.

Section 10. Response Actions. The subject matter shall be

governed by 40 C.F.R. 265.259, effective July 1, 2005.

Section 11. Monitoring and Inspections. The subject matter shall be governed by 40 C.F.R. 265.260, effective July 1, 2005. [The requirements in this administrative regulation apply to owners and operators of sites or facilities that treat or store hazardous waste in piles, except as Section 4 of 401 KAR 35.010 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under 401 KAR 35.230.

Section 2. Protection from Wind. The owner or operator of a pile containing hazardous waste which could be subject to dispersal of wind shall cover or otherwise manage the pile so that wind dispersal is controlled.

Section 3. Waste Analysis. (1) In addition to the waste analysis required by Section 4 of 401 KAR 35.020, the owner or operator shall analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless:

(a) The only wastes the facility receives which are amenable to piling are compatible with each other, or
(b) The waste received is compatible with the waste in the pile to which it is to be added.

(2) The analysis conducted shall be capable of differentiating between the types of hazardous waste the owner or operator place in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis shall include a visual comparison of color and texture.

Section 4. Containment. If leachate or run-off from a pile is a hazardous waste then either subsection (1) or (2) of this section shall be complied with:

(1)(a) The pile shall be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(b) The owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a twenty-five (25) year storm;

(c) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm; and

(d) Collection and holding facilities (tanks or basins) associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(2)(a) The pile shall be protected from precipitation and run-on by some other means; and

(b) No liquids or wastes containing free liquids may be placed in the pile.

Section 5. Special Requirements for Ignitable or Reactive Waste. Ignitable or reactive wastes shall not be placed in a pile unless the waste and pile satisfy all applicable requirements of 401 KAR Chapter 37; and

(1) The waste or mixture no longer meets the definition of ignitable or reactive waste under Section 2 or 4 of 401 KAR 31.030; and

(2) The waste is managed in accordance with Section 8(2) of 401 KAR 35.020 so that it is protected from any material or conditions that may cause it to ignite or react.

Section 6. Special Requirements for Incompatible Wastes (1) Incompatible wastes or incompatible wastes and materials (see 401 KAR 35.330 for examples), shall not be placed in the same pile.

(2) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall or other device.

(3) Hazardous waste shall not be piled on the same area where incompatible wastes or materials were previously piled,

unless that area has been decontaminated sufficiently to ensure compliance with Section 8(2) of 401 KAR 35.020.

Section 7. Closure and Postclosure Care. (1) At closure the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, contaminated subsolls, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Section 3(4) of 401 KAR 31.010 applies; or

(2) If, after removing or decontaminating all residue and making all reasonable efforts to effect removal or decontamination of contaminated components, subsolls, structures and equipment as required in subsection (1) of this section, the owner or operator finds that not all contaminated subsolls can be practicably removed or decontaminated, he shall close the facility and perform postclosure care in accordance with the closure and postclosure requirements that apply to landfills (see Section 4 of 401 KAR 35.230). If the owner or operator did not list the waste pile as a disposal facility in the original Part A application, the requirements of 401 KAR 35.500 shall be satisfied in order to become a disposal facility.

Section 8. Design and Operating Requirements. The owner or operator of each waste pile on which construction commenced after January 29, 1992, each lateral expansion of a waste pile unit on which construction commenced after July 29, 1992, and each replacement of an existing waste pile unit that commenced reuse after July 29, 1992 shall install two (2) or more liners and a leachate collection and removal system above and between the liners, and operate the leachate collection and removal systems, in accordance with Section 2(3) of 401 KAR 34.210, unless exempted under Section 2(4), (5), or (6) of 401 KAR 34.210; and shall comply with the procedures of Section 2(2) of 401 KAR 34.200. "Construction commences" is as defined in Section 1(89) of 401 KAR 35.005.

Section 9. Action Leakage Rates. (1) The owner or operator of waste pile units subject to Section 5 of this administrative regulation shall submit a proposed action leakage rate to the cabinet when submitting the notice required under Section 5 of this administrative regulation. Within sixty (60) days of receipt of the notification, the cabinet shall:

(a) Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or

(b) Extend the review period for up to thirty (30) days. If no action is taken by the cabinet before the original sixty (60) or extended ninety (90) day review periods, the action leakage rate shall be approved as proposed by the owner or operator. However, upon written notice by the cabinet to the owner or operator, the action leakage rate may be modified by the cabinet.

(2) The cabinet shall approve an action leakage rate for surface impoundment units subject to Section 5 of this administrative regulation. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one (1) foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design (for example, slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (for example, the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures).

(3) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly flow rate from the monitoring data obtained under Section 11 of this administrative regulation, to an average daily flow rate (gallons per acre per day for example) for each cump. Unless the cabinet approves a different calculation, the average daily flow rate for each cump shall be calculated weekly during the active life and closure period.

Section 10. Response Actions. (1) The owner or operator of waste pile units subject to Section 8 of this administrative regulation shall submit a response action plan to the cabinet when sub-

mitting the proposed action leakage rate under Section 8 of this administrative regulation. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in subsection (2) of this section.

(2) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(a) Notify the cabinet in writing of the exceedance within seven (7) days of the determination;

(b) Submit a preliminary written assessment to the cabinet within fourteen (14) days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short term actions taken and planned;

(c) Determine to the extent practicable the location, size, and cause of any leak;

(d) Determine whether waste receipts shall cease or be curtailed, whether any waste shall be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(e) Determine any other short term and longer term actions to be taken to mitigate or stop any leaks; and

(f) Within thirty (30) days after the notification that the action leakage rate has been exceeded, submit to the cabinet the results of the analyses specified in subsections (2)(c), (d), and (e) of this section, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the cabinet a report summarizing the results of any remedial actions taken and actions planned.

(3) To make the leak and remediation determinations in subsections (2)(c), (d), and (e) of this section, the owner or operator shall:

(a)1. Assess the source of liquids and amounts of liquids by source;

2. Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

3. Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(b) Document why such assessments are not needed.

Section 11. Monitoring and Inspection. An owner or operator required to have a leak detection system under Section 8 of this administrative regulation shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED BY LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:220. Land treatment (Interim Status) [(45)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart M

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 265 Subpart M]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of

hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 by establishing] minimum standards for land treatment facilities qualifying for interim status. [To implement provisions of KRS 224.46-520 and to establish minimum standards for land treatment facilities qualifying for interim status.]

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 265.270, effective July 1, 2005.

Section 2. General Operating Requirements. The subject matter shall be governed by 40 C.F.R. 265.272, effective July 1, 2005.

Section 3. Waste Analysis. The subject matter shall be governed by 40 C.F.R. 265.273, effective July 1, 2005.

Section 4. Food Chain Crops. The subject matter shall be governed by 40 C.F.R. 265.276, effective July 1, 2005.

Section 5. Unsaturated Zone (Zone of Aeration) Monitoring. The subject matter shall be governed by 40 C.F.R. 265.278, effective July 1, 2005.

Section 6. Recordkeeping. The subject matter shall be governed by 40 C.F.R. 265.279, effective July 1, 2005.

Section 7. Closure and Postclosure. The subject matter shall be governed by 40 C.F.R. 265.280, effective July 1, 2005.

Section 8. Special Requirements for Ignitable or Reactive Wastes. The subject matter shall be governed by 40 C.F.R. 265.281, effective July 1, 2005.

Section 9. Special Requirements for Incompatible Wastes. The subject matter shall be governed by 40 C.F.R. 265.282, effective July 1, 2005. [The requirements in this administrative regulation apply to owners and operators of hazardous waste land treatment facilities, except as Section 1 of 401-KAR-35.010 provides otherwise.]

Section 2. General Operating Requirements. (1) Hazardous waste shall not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by degradation, transformation or immobilization processes occurring in or on the soil.

(2) The owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a twenty-five (25) year storm.

(3) The owner or operator shall design, construct, operate and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a twenty-four (24) hour, twenty-five (25) year storm.

(4) Collection and holding facilities (tanks or basins for example) associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(5) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.

Section 3. Waste Analysis. In addition to the waste analyses required by Section 4 of 401-KAR-35.020, before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

(1) Determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in Table 1 of 401-KAR-31.030, Section 5(3), that cause a waste to exhibit the toxicity characteristic;

(2) For any waste listed in 401-KAR-31.040, determine the concentrations of any substances which caused the waste to be listed as a hazardous waste, and

(3) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents, arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that the constituent is not present.

Section 4. Food Chain Crops. (1) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and shall be grown in the future, shall notify the cabinet within sixty (60) days after January 7, 1981.

(2)(a) Food chain crops shall not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury or other constituents identified under Section 3(2) of this administrative regulation:

1. Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals; or

2. Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

(b) The information necessary to make the demonstration required by paragraph (a) of this subsection shall be kept at the land treatment facility and shall, at a minimum:

1. Be based on tests for the specific waste and application rates being used at the land treatment facility; and

2. Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods and statistical procedures.

(3) Food chain crops shall not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of either paragraph (a) of this subsection or all requirements of paragraph (b) of this subsection are met.

(a)1. The pH of the waste and soil mixture is six and five tenths (6.5) or greater at the time of each waste application, except for waste containing cadmium at concentrations of two (2) mg/kg (dry weight) or less;

2. The annual application of cadmium from waste does not exceed five tenths (0.5) kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time Period	Annual Cd applicable Rate (kg/ha)
Present to June 30, 1984	2.0
July 1, 1984-December 31, 1986	1.25
Beginning Jan. 1, 1987	0.5

3. The cumulative application of cadmium from waste does not exceed the levels in either subparagraph 3a of this paragraph or subparagraph 3b of this paragraph.

Soil Cation Exchange Capacity (meq/100g)	Maximum Cumulative Application (kg/ha)	
	Background Soil pH Less than 6.5	Background Soil pH Greater than 6.5
Less than 5	5	5
5-15	5	10
Greater than 15	5	20

b. For soils with a background pH of less than six and five tenths (6.5), the cumulative cadmium application rate does not exceed the levels in Table 3 provided that the pH of the waste and soil mixture is adjusted and maintained at six and five tenths (6.5) or greater whenever food chain crops are grown.

Soil Cation Exchange Capacity (meq/100g)	Maximum Cumulative Application (kg/ha)
Less than 5	5
5-15	10

Greater than 15	20
-----------------	----

(b)1. The only food chain crop produced is animal feed.

2. The pH of the waste and soil mixture is six and five tenths (6.5) or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown;

3. There is a facility operating plan which demonstrates how the animal feed shall be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

4. Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops shall not be grown except in compliance with this paragraph.

Section 5. Unsaturated Zone (Zone of Aeration) Monitoring. (1) The owner or operator shall have in writing, and shall implement, an unsaturated zone monitoring plan which is designed to:

(a) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility; and

(b) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring shall be conducted before or in conjunction with the monitoring required under paragraph (a) of this subsection.

(2) The unsaturated zone monitoring plan shall include, at a minimum:

(a) Soil monitoring using soil cores; and
(b) Soil pore water monitoring using devices such as lysimeters.

(3) To comply with subsection (1)(a) of this section, the owner or operator shall demonstrate in his unsaturated zone monitoring plan that:

(a) The depth at which soil and soil pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(b) The number of soil and soil pore water samples to be taken is based on the variability of:

1. The hazardous waste constituents (as identified in Section 3(1) and (2) of this administrative regulation) in the waste and in the soil; and

2. The soil type; and

(c) The frequency and timing of soil and soil pore water sampling is based on the frequency, time and rate of waste application, proximity to groundwater and soil permeability.

(4) The owner or operator shall keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

(5) The owner or operator shall analyze the soil and soil pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under Section 3(1) and (2) of this administrative regulation.

Section 6. Recordkeeping. The owner or operator shall include hazardous waste application dates and rates in the operating record required under Section 4 of 401 KAR 35-050.

Section 7. Closure and Pesticure. (1) In the closure plan under Section 3 of 401 KAR 35-070 and the pesticides plan under Section 9 of 401 KAR 35-070, the owner or operator shall address the following objectives and indicate how they shall be achieved.

(a) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;

(b) Control of the release of contaminated run-off from the land treatment facility into surface water;

(c) Control of the release of airborne particulate contaminants caused by wind erosion; and

(d) Compliance with Section 4 of this administrative regulation concerning the growth of food chain crops.

(2) The owner or operator shall consider at least the following

factors in addressing the closure and postclosure care objectives of subsection (1) of this section:

- (a) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;
- (b) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;
- (c) Site location, topography and surrounding land use with respect to the potential effects of pollutant migration (for example, proximity to groundwater, surface water and drinking water sources);
- (d) Climate, including amount, frequency and pH of precipitation;
- (e) Geological and soil profiles and surface and subsurface hydrology of the site and soil characteristics including cation exchange capacity, total organic carbon and pH;
- (f) Unsaturated zone monitoring information obtained under Section 5 of this administrative regulation; and
- (g) Type, concentration and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(3) The owner or operator shall consider at least the following methods in addressing the closure and postclosure care objectives of subsection (1) of this section:

- (a) Removal of contaminated soils;
- (b) Placement of a final cover considering:
 1. Functions of the cover (infiltration control, erosion and run-off control and wind erosion control for example); and
 2. Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope and type of vegetation on the cover; and
- (c) Monitoring of groundwater.

(4) In addition to the requirements of 401 KAR 35:070, during the closure period the owner or operator of a land treatment facility shall:

- (a) Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan;
- (b) Maintain the run-on control system required under Section 2(2) of this administrative regulation;
- (c) Maintain the run-off management system required under Section 2(3) of this administrative regulation; and
- (d) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(5) For the purpose of complying with Section 6 of 401 KAR 35:070, when closure is completed the owner or operator may submit to the cabinet certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(6) In addition to the requirements of Section 8 of 401 KAR 35:070, during the postclosure care period the owner or operator of a land treatment facility shall:

- (a) Continue soil core monitoring by collecting and analyzing samples in a manner and frequency specified in the postclosure plan;
- (b) Restrict access to the land treatment facility as appropriate for its postclosure use;
- (c) Assure that growth of food chain crops complies with Section 4 of this administrative regulation; and
- (d) Control wind dispersal of hazardous waste.

Section 8. Special Requirements for Ignitable or Reactive Waste. The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless the waste and treatment zone meet all applicable requirements of 401 KAR Chapter 37 and

- (1) The waste is immediately incorporated into the soil so that:
 - (a) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Section 2 or 4 of 401 KAR 31:030; and
 - (b) Section 8(2) of 401 KAR 35:020 is complied with.

(2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

Section 9. Special Requirements for Incompatible Wastes.

incompatible wastes, or incompatible wastes and materials (see 401 KAR 35:330 for examples), shall not be placed in the same land treatment area.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 35:230. Landfill (Interim Status) [(4S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart N

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 265 Subpart N~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 by establishing] minimum standards for hazardous waste landfills qualifying for interim status. [To implement provisions of KRS 224.46-520 and to establish minimum standards for hazardous waste landfills qualifying for interim status.]

Section 1. Applicability The subject matter shall be governed by 40 C.F.R. 265.300, effective July 1, 2005.

Section 2. Design and Operating Requirements (1) The subject matter shall be governed by 40 C.F.R. 265.301, effective July 1, 2005.

(2) The citation to Section 3004(o)(1)(A)(i) and (o)(5) of RCRA in the federal regulation referenced in subsection (1) [4] of this section shall be replaced with 401 KAR Chapter 34.

(3) The citation to Section 3005 of RCRA in the federal regulation referenced in subsection (1) [4] of this section shall be replaced with 401 KAR Chapter 38.

Section 3. Action Leakage Rate. The subject matter shall be governed by 40 C.F.R. 265.302, effective July 1, 2005.

Section 4. Response Actions (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 265.303 [subject to the modifications, exceptions, and additions set forth in this section.] effective July 1, 2005.

(2) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall notify the cabinet immediately if required by KRS 224.01-400.

Section 5. Monitoring and Inspection The subject matter shall be governed by 40 C.F.R. 265.304, effective July 1, 2005.

Section 6. Surveying and Recordkeeping The subject matter shall be governed by 40 C.F.R. 265.309, effective July 1, 2005.

Section 7. Closure and Postclosure Care. The subject matter shall be governed by 40 C.F.R. 265.310, effective July 1, 2005.

Section 8. Special Requirements for Ignitable or Reactive Wastes The subject matter shall be governed by 40 C.F.R.

265.312, effective July 1, 2005.

Section 9. Special Requirements for Incompatible Wastes The subject matter shall be governed by 40 C.F.R. 265.313, effective July 1, 2005.

Section 10. Special Requirements for Bulk and Containerized Liquids The subject matter shall be governed by 40 C.F.R. 265.314(b) through (g), effective July 1, 2005.

Section 11. Special Requirements for Containers The subject matter shall be governed by 40 C.F.R. 265.315, effective July 1, 2005.

Section 12. Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs) The subject matter shall be governed by 40 C.F.R. 265.316, effective July 1, 2005. [The requirements in this administrative regulation apply to owners and operators of sites or facilities that dispose of hazardous waste in landfills, except as Section 4 of 401 KAR 35:010 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this administrative regulation.

Section 2. Action Leakage Rate. (1) The owner or operator of landfill units subject to Section 10(1) of this administrative regulation shall submit a proposed action leakage rate to the cabinet when submitting the notice required under Section 10(2) of this administrative regulation. Within sixty (60) days of receipt of the notification, the cabinet shall:

- (a) Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or
- (b) Extend the review period for up to thirty (30) days. If no action is taken by the cabinet before the original sixty (60) or extended ninety (90) day review periods, the action leakage rate shall be approved as proposed by the owner or operator.

(2) The cabinet shall approve an action leakage rate for landfills subject to Section 10(1) of this administrative regulation. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one (1) foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design (such as slope, hydraulic conductivity, or thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions. (The action leakage rate must consider decreases in the flow capacity of the system over time resulting from such factors as siltation and clogging, nb layover and creep of synthetic components of the system, or overburden pressures).

(3) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Section 12 of this administrative regulation to an average daily flow rate (gallons per acre per day) for each sump. Unless the cabinet approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and monthly during the postclosure care period when monthly monitoring is required under Section 12(2) of this administrative regulation.

(4) As required by Section 4 of 401 KAR 35:020, the waste analysis plan shall include the analyses needed to comply with Sections 5, 6, and 7 of this administrative regulation. As required by Section 4 of 401 KAR 35:050, the owner or operator shall place the results of these analyses in the operating record of the facility.

Section 3. Surveying and Recordkeeping. The owner or operator of a landfill shall maintain the following items in the operating record required in Section 4 of 401 KAR 35:050:

(1) On a map, the exact location and dimensions, including depth of each cell with respect to permanently surveyed benchmarks; and

(2) The contents of each cell and the approximate location of each hazardous waste type within each cell.

Section 4. Closure and Postclosure Care. (1) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(a) Provide long-term minimization of migration of liquids through the closed landfill;

(b) Function with minimum maintenance;

(c) Promote drainage and minimize erosion or abrasion of the cover;

(d) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(e) Have a permeability less than or equal to 1×10^{-7} cm/sec.

(2) After final closure, the owner or operator shall comply with all postclosure requirements contained in Sections 8 to 11 of 401 KAR 35:070 including maintenance and monitoring throughout the postclosure care period. The owner or operator shall:

(a) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(b) Maintain and monitor the leak detection system in accordance with Sections 2(3)(c)4 and (2)(d) and 13 of 401 KAR 34:230, and comply with all other applicable leak detection system requirements of this chapter.

(c) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of 401 KAR 34:060;

(d) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(e) Protect and maintain surveyed benchmarks used in complying with Section 3 of this administrative regulation.

(3) The owner or operator shall consider at least the following factors in addressing the closure and postclosure care objectives of subsection (2) of this section:

(a) Type and amount of hazardous waste and hazardous waste constituents in the landfill;

(b) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(c) Site location, topography and surrounding land use, with respect to the potential effects of pollutant migration (for example, proximity to groundwater, surface water, and drinking water sources);

(d) Climate, including amount, frequency and pH of precipitation;

(e) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope and type of vegetation on the cover; and

(f) Geological and soil profiles, and surface and subsurface hydrology of the site.

(4) After final closure, the owner or operator shall comply with all postclosure requirements contained in Sections 8 to 11 of 401 KAR 35:070 including maintenance and monitoring throughout the postclosure care period. The owner or operator shall:

(a) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(b) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of 401 KAR 35:060;

(c) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(d) Protect and maintain surveyed benchmarks used in complying with this section.

(5) In addition to the requirements of Section 8 of 401 KAR 35:070, during the postclosure care period, the owner or operator of a hazardous waste landfill shall:

(a) Maintain and monitor the gas collection and control system (if there is one present in the landfill) to control the vertical and horizontal escape of gases; and

(b) Restrict access to the landfill as appropriate for its postclosure use.

Section 5. Special Requirements for Ignitable or Reactive Waste. Ignitable or reactive waste shall not be placed in a landfill unless the waste and landfill meet all applicable requirements of 401 KAR Chapter 37 and:

(1) The resulting waste or mixture no longer meets the definition of ignitable or reactive waste under Section 2 or 3 of 401 KAR 31:030; and

(2) Section 8(2) of 401 KAR 35:020 is complied with.

~~Section 6. Special Requirements for Incompatible Wastes. Incompatible wastes or incompatible wastes and materials (see 401 KAR 35.030 for examples) shall not be placed in the same landfill cell.~~

~~Section 7. Special Requirements for Liquid, Bulk and Containerized Waste. (1) The placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.~~

~~(2) Containers holding free liquids shall not be placed in a landfill unless:~~

- ~~(a) All freestanding liquid:~~
- ~~1. Has been removed by decanting, or other methods; or~~
 - ~~2. Has been mixed with sorbent or solidified so that freestanding liquid is no longer observed; or~~
 - ~~3. Has been otherwise eliminated; or~~

~~(b) The container is very small, such as an ampule, or~~

~~(c) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or~~

~~(d) The container is a lab pack as identified in Section 9 of this administrative regulation and is disposed in accordance with Section 9 of this administrative regulation.~~

~~(3) To demonstrate the absence or presence of free liquids in either a containerized or bulk waste, the following test shall be used: Method 9005 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," (EPA Publication SW-846 which is incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010).~~

~~(4) The date for compliance with subsection (1) of this section is November 19, 1981. The date for compliance with subsection (2) of this section is March 22, 1982.~~

~~(5) Sorbents used to treat free liquids to be disposed in landfills must be nonbiodegradable. Nonbiodegradable sorbents are materials listed or described in paragraph (a) of this subsection; materials that pass one of the tests in paragraph (b) of this subsection; or materials that are determined by the cabinet to be nonbiodegradable through the petition process of Section 6 in 401 KAR 31.060.~~

~~(a) Nonbiodegradable sorbents-~~

~~1. Inorganic minerals, other inorganic materials, and elemental carbon (for example, aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides or hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock, volcanic ash, cement kiln dust; fly ash, rice hull ash, activated charcoal or activated carbon); or~~

~~2. High molecular weight synthetic polymers (for example, polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or~~

~~3. Mixtures of these nonbiodegradable materials.~~

~~(b) Tests for nonbiodegradable sorbents.~~

~~1. The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or~~

~~2. The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 Standard Practice for Determining Resistance of Plastics to Bacteria; or~~

~~3. The sorbent material is determined to be nonbiodegradable under OECD test 301B CO₂ Evolution (modified Sturm Test).~~

~~(6) Effective November 8, 1985, the placement of any liquid, that is not a hazardous waste, in a hazardous waste landfill is prohibited unless the owner or operator of such landfill demonstrates to the cabinet or the cabinet determines that:~~

~~(a) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste;~~

~~(b) Placement in such owner's or operator's landfill will not present a risk of contamination of any underground source of drink-~~

~~ing water; and~~

~~(c) Placement in such owner's or operator's landfill is in compliance with the applicable provisions of KRS Chapter 224.~~

~~Section 8. Special Requirements for Containers. Unless they are very small, such as an ampule, containers shall be either:~~

~~(1) At least ninety (90) percent full when placed in the landfill; or~~

~~(2) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.~~

~~Section 9. Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs). Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:~~

~~(1) Hazardous waste shall be packaged in nonleaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the DOT hazardous materials regulations, 49 C.F.R. Subpart C, if those regulations specify a particular inside container for the waste.~~

~~(2) The inside containers shall be overpacked in an open head DOT specification metal shipping container, 49 C.F.R. Subpart C of no more than 416 liter (approximately 110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with Section 7(4) of this administrative regulation, to completely sorb all of the liquid contents of the inside containers. The metal outer container shall be full after packing with inside containers and sorbent material.~~

~~(3) The sorbent material used shall not be capable of reacting dangerously with, being decomposed by or being ignited by the contents of the inside containers, in accordance with Section 8(2) of 401 KAR 35.020.~~

~~(4) Incompatible wastes, as defined in Section 1 of 401 KAR 35.005, shall not be placed in the same outside container.~~

~~(5) Reactive waste shall be treated or rendered nonreactive prior to packaging in accordance with subsections (1) to (4) of this section.~~

~~(6) Such disposal shall comply with the requirements of 401 KAR Chapter 37. Persons who incinerate lab packs according to the requirements in Section 4 of 401 KAR 37.040 may use fiber drums in place of metal outer containers. The fiber drums shall meet the DOT specifications in 49 C.F.R. Subpart C and be overpacked according to the requirements in subsection (2) of this section.~~

~~Section 10. Design and Operating Requirements. (1) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 shall install two (2) or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with Section 2(4), (5), or (f) of 401 KAR 34.230. "Construction commences" is as defined in Section 1(89) of 401 KAR 35.005.~~

~~(2) The owner or operator of a landfill shall install two (2) or more liners and leachate collection systems above and between such liners in accordance with Section 2(3) of 401 KAR 34.230 with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in the Part A permit application, and with respect to waste received beginning May 8, 1986.~~

~~(3) The owner or operator of each unit referred to in subsection (1) of this section must notify the cabinet at least sixty (60) days prior to receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six (6) months of the receipt of such notice by the cabinet.~~

~~(4) The owner or operator of any replacement landfill unit is exempt from paragraph (a) of this section if-~~

~~(a) The existing unit was constructed in compliance with the design standards of 401 KAR Chapter 34, and~~

~~(b) There is no reason to believe that the liner is not functioning~~

as designed.

(5) Subsection (1) of this section shall not apply if the owner or operator demonstrates to the cabinet, and the cabinet finds for such landfill, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(6) The double liner requirement set forth in subsection (1) of this section may be waived by the cabinet for any monofill, if:

(a) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristics in Section 6 of 401 KAR 31:030, with EPA Hazardous Waste Numbers D004 through D017 and the owner or operator demonstrates that:

1. The monofill:

a. Has at least one (1) liner for which there is no evidence that such liner is leaking;

b. Is located more than one fourth (1/4) mile from an underground source of drinking water (as that term is defined in 401 KAR 35:005), and

c. Is in compliance with generally applicable ground water monitoring requirements for facilities with permits under 401 KAR Chapter 38; or

2. The owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(7) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of subsection (1) of this section and in good faith compliance with subsection (1) of this section and with guidance documents governing liners and leachate collection systems under subsection (1) of this section, no liner or leachate collection system which is different from that which was so installed pursuant to subsection (1) of this section shall be required for such unit by the cabinet when issuing the first permit to such facility, except that the cabinet shall not be precluded from requiring installation of a new liner if the cabinet has reason to believe that any liner installed pursuant to the requirements of subsection (1) of this section is leaking.

(8) The owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a twenty-five (25) year storm.

(9) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm.

(10) Collection and holding facilities (such as tanks or basins) associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(11) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

Section 11. Response Actions (1) The owner or operator of landfill units subject to Section 10(1) of this administrative regulation shall submit a response action plan to the cabinet when submitting the proposed action leakage rate under Section 2 of this administrative regulation. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in subsection (2) of this section.

(2) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(a) Notify the cabinet in writing of the exceedance within seven (7) days of the determination or immediately if required by KRS 224.01-400;

(b) Submit a preliminary written assessment to the cabinet within fourteen (14) days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause

of any leaks, and short-term actions taken and planned;

(c) Determine to the extent practicable the location, size, and cause of any leak;

(d) Determine whether waste receipt shall cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit shall be closed;

(e) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks, and

(f) Within thirty (30) days after the notification that the action leakage rate has been exceeded, submit to the cabinet the results of the analyses specified in paragraphs (c) and (e) of this subsection, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the cabinet a report summarizing the results of any remedial actions taken and actions planned.

(3) To make the leak and remediation determinations in subsections (2)(c), (d), and (e) of this section, the owner or operator shall:

(a) 1. Assess the source of liquids and amounts of liquids by source;

2. Conduct a fingerprint, hazardous constituent, or other analysis of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

3. Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(b) Document why such assessments are not needed.

Section 12. Monitoring and Inspection. (1) An owner or operator required to have a leak detection system under Section 10(1) of this administrative regulation shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two (2) consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semiannually. If at any time during the postclosure care period the pump operating level is exceeded at units on quarterly or semiannual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) The timing for submission and approval of the proposed "pump operating level" shall be in accordance with Section 2(1) of this administrative regulation.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department for Environmental Protection

Division of Waste Management

(As Amended at ARRS, May 8, 2007)

401 KAR 35:240. Incinerators (Interim Status) [(4S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart O

STATUTORY AUTHORITY: KRS 224 10-100, 224.46-520[40 C.F.R. 265 Subpart O]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to

establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes implements provisions of KRS 224.46-520 by establishing minimum standards for incinerators qualifying for interim status. [To implement provisions of KRS 224.46-520 and to establish minimum standards for incinerators qualifying for interim status.]

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 265.340, effective July 1, 2005.

Section 2. Waste Analysis. The subject matter shall be governed by 40 C.F.R. 265.341, effective July 1, 2005.

Section 3. General Operating Requirements. The subject matter shall be governed by 40 C.F.R. 265.345, effective July 1, 2005.

Section 4. Monitoring and Inspections. The subject matter shall be governed by 40 C.F.R. 265.347, effective July 1, 2005.

Section 5. Closure. The subject matter shall be governed by 40 C.F.R. 265.351, effective July 1, 2005.

Section 6. Interim Status Incinerators Burning Particular Hazardous Wastes. The subject matter shall be governed by 40 C.F.R. 265.352, effective July 1, 2005. [(1) The requirements in this administrative regulation apply to owners and operators of sites or facilities that incinerate hazardous waste, except as Section 1 of 401-KAR-35:010 provides otherwise.

(2) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this administrative regulation, except Section 5 of this administrative regulation, provided that the owner or operator has documented, in writing, that the waste shall not reasonably be expected to contain any of the hazardous constituents listed in 401-KAR 31:170, and the documentation is retained at the facility, if the waste to be burned is:

(a) Listed as a hazardous waste in 401-KAR 31:040 solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(b) Listed as a hazardous waste in 401-KAR 31:040 solely because it is reactive (Hazard Code R) for characteristics other than those listed in Section 4(1)(d) and (e) of 401-KAR 31:030, and will not be burned when other hazardous wastes are present in the combustion zone; or

(c) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under 401-KAR 31:030; or

(d) A hazardous waste solely because it possesses the reactivity characteristics described by Section 4(1)(a), (b), (e), (f), (g), or (h) of 401-KAR 31:030, and will not be burned when other hazardous wastes are present in the combustion zone.

Section 2. Waste Analysis. In addition to the waste analyses required by Section 4 of 401-KAR 35:020, the owner or operator shall sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

(1) Heating value of the waste;

(2) Halogen content and sulfur content in the waste; and

(3) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

Section 3. General Operating Requirements. During start-up and shutdown of an incinerator, the owner or operator shall not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

Section 4. Monitoring and Inspections. The owner or operator shall conduct, at a minimum, the following monitoring and inspections when incinerating hazardous waste:

(1) Existing instruments which relate to combustion and emission control shall be monitored at least every fifteen (15) minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH and relevant level controls.

(2) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes for example) shall be inspected at least daily for leaks, spills and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

Section 5. Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator.

Section 6. Interim Status Incinerators Burning Particular Hazardous Wastes. (1) Owners or operators of incinerators subject to this administrative regulation may burn EPA Hazardous Waste Numbers F020, F021, F023, F026, or F027 (chlorinated dioxins, dibenzofurans, and phenols) if they receive a certification from the cabinet that they can meet the performance standards of 401-KAR 34:240 when they burn these wastes.

(2) The following standards and procedures shall be used in determining whether to certify an incinerator:

(a) The owner or operator shall submit an application to the cabinet containing applicable information in 401-KAR 38:190 and Section 3 of 401-KAR 38:060 demonstrating that the incinerator can meet the performance standards in 401-KAR 34:240 when they burn these wastes.

(b) The cabinet shall issue a tentative decision as to whether the incinerator can meet the performance standards in 401-KAR 34:240. Notification of this tentative decision shall be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The cabinet shall accept comment on the tentative decision for sixty (60) days. The cabinet also may hold a public hearing upon request or at the cabinet's discretion.

(c) After the close of the public comment period, the cabinet shall issue a decision whether or not to certify the incinerator.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 35:245. Containment buildings (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.01, 224.10, 224.46, 40 C.F.R. Part 265 Subpart DD

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530[, 40 C.F.R. Part 265 Subpart DD]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes implements provisions of KRS 224.46-520 and 224.46-530 by establishing minimum standards for containment buildings that qualify for interim status. [To implement provisions of KRS 224.46-

520 and 224.46-530 and to establish minimum standards for containment buildings. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 265 Subpart DD except the date of compliance has been changed to reflect the original effective date of this administrative regulation.]

Section 1. Applicability. (1) The subject matter shall be governed by 40 C.F.R. 265 1100, effective July 1, 2005.

(2) The citation to Section 3004(k) of RCRA in the federal regulation referenced in subsection (1) [4] of this section shall be replaced with KRS 224.01-010.

Section 2. Design and Operating Standards. The subject matter shall be governed by 40 C.F.R. 265 1101, effective July 1, 2005.

Section 3. Closure and Postclosure Care. The subject matter shall be governed by 40 C.F.R. 265 1102, effective July 1, 2005. [The requirements of this administrative regulation apply to owners or operators who store or treat hazardous waste in units designed and operated under Section 2 of this administrative regulation. These provisions shall become effective on the effective date of this administrative regulation, although the owner or operator may notify the cabinet of their intent to be bound by this administrative regulation at an earlier time. The owner or operator is not subject to the definition of land disposal in KRS 224.01-010 provided that the unit:

(1) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(2) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel and handling equipment within the unit;

(3) If the unit is used to manage liquids, has:

(a) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(b) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(c) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest possible time, unless the unit has been granted a variance from the secondary containment system requirements under Section 2(2)(d) of this administrative regulation;

(4) Has controls as needed to prevent fugitive dust emissions to meet the no visible emission standard in Section 2(3)(a)4. of this administrative regulation; and

(5) Is designed and operated to ensure containment and prevent the migration of materials from the unit by personnel or equipment.

Section 2. Design and Operating Standards. (1) All containment buildings shall comply with the following design standards:

(a) The containment building shall be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (for example, precipitation, wind, run-on), and to assure containment of managed wastes.

(b) The floor and containment walls of the unit, including the secondary containment system if required under subsection (2) of this section, shall be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with con-

tainment walls. The unit shall be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes shall be chemically compatible with these wastes. The cabinet will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of this subsection. If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light weight doors and windows that meet these criteria:

1. They provide an effective barrier against fugitive dust emissions under subsection (3)(a)4 of this section; and

2. The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(c) Incompatible hazardous wastes or treatment reagents shall not be placed in the unit or its secondary containment system if they may cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(d) A containment building shall have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(2) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator shall include:

(a) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (for example a geomembrane covered by a concrete wear surface).

(b) A liquid collection and removal system to prevent the accumulation of liquid on the primary barrier of the containment building:

1. The primary barrier shall be sloped to drain liquids to the associated collection system; and

2. Liquids and waste shall be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time that protects human health and the environment.

(c) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

1. The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

a. Constructed with a bottom slope of one (1) percent or more, and

b. Constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of twelve (12) inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-6} m²/sec or more.

2. If treatment is to be conducted in the building, an area in which such treatment will be conducted shall be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

3. The secondary containment system shall be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 4(4)(a) of 401 KAR 35:190. In addition, the containment building shall meet the requirements of Section 4(3)(a) and (b) of 401 KAR 35:190 to be considered an acceptable secondary containment system for a tank.)

(d) For existing units other than ninety (90) day generator units,

the cabinet may delay the secondary containment requirement for up to two (2) years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this administrative regulation. In making this demonstration, the owner or operator shall:

1. Provide written notice to the cabinet of their request within ninety (90) days of the effective date of this administrative regulation. This notification shall describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

2. Respond to any comments from the cabinet on these plans within thirty (30) days; and

3. Fulfill the terms of the revised plans, if such plans are approved by the cabinet.

(3) Owners or operators of all containment buildings shall:

(a) Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

1. Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that may cause hazardous waste to be released from the primary barrier;

2. Maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

3. Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area shall be designated to decontaminate equipment and any residue shall be collected and properly managed; and

4. Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 C.F.R. Part 60, Appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares, incorporated by reference in 401 KAR 50.015-Section 1(1)(e)(1)qq). In addition, all associated particulate collection devices (for example, fabric filter, electrostatic precipitator) shall be operated and maintained with sound air pollution control practices. This state of no visible emissions shall be maintained effectively at all times during normal operating conditions, including when vehicles and personnel are entering and exiting the unit.

(b) Obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of subsections (1) through (3) of this section. For units placed into operation prior to the effective date of this administrative regulation, this certification shall be placed in the facility's operating record (on-site files for generators who are not formally required to have operating records) no later than sixty (60) days after the date of initial operation of the unit. After the effective date of this administrative regulation, Professional Engineer certification will be required prior to operation of the unit.

(c) Throughout the active life of the containment building, if the owner or operator detects a condition that may lead to or has caused a release of hazardous waste, the owner or operator shall repair the condition promptly, in accordance with the following procedures:

1. Upon detection of a condition that has led to a release of hazardous waste (for example, upon detection of leakage from the primary barrier) the owner or operator shall:

a. Enter a record of the discovery in the facility operating record;

b. Immediately remove the portion of the containment building affected by the condition from service;

c. Determine what steps shall be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

d. Within seven (7) days after the discovery of the condition, notify the cabinet of the condition, and within fourteen (14) working days, provide a written notice to the cabinet with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

2. The cabinet will review the information submitted, make a determination regarding whether the containment building shall be removed from service completely or partially until repairs and

cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

3. Upon completing all repairs and cleanup the owner or operator shall notify the cabinet in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (3)(c)1d of this section.

(d) Inspect and record in the facility's operating record, at least once every seven (7) days, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(4) For a containment building that contains both areas with and without secondary containment, the owner or operator shall:

(a) Design and operate each area in accordance with the requirements enumerated in subsections (1) through (3) of this section;

(b) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

(c) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(5) The cabinet may waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

Section 3. Closure and Postclosure Care. (1) At closure of a containment building, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Section 3(4) of 401 KAR 31.010 applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings shall meet all of the requirements specified in 401 KAR 35.070 and 35.080.

(2) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (1) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the containment facility and perform postclosure care in accordance with the closure and postclosure requirements of Section 4 of 401 KAR 35.230 that apply to landfills. In addition, for the purposes of closure, postclosure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in 401 KAR 35.070 and 35.080.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 35:250. Thermal treatment (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart F

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 265 Subpart F]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and

disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the post-closure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 by establishing] minimum standards for thermal treatment facilities qualifying for interim status. [To implement provisions of KRS 224.46-520 and to establish minimum standards for thermal treatment facilities qualifying for interim status.]

Section 1. Other Thermal Treatment The subject matter shall be governed by 40 C.F.R. 265.370, effective July 1, 2005.

Section 2. General Operating Requirements The subject matter shall be governed by 40 C.F.R. 265.373, effective July 1, 2005.

Section 3. Waste Analysis The subject matter shall be governed by 40 C.F.R. 265.375, effective July 1, 2005.

Section 4. Monitoring and Inspections The subject matter shall be governed by 40 C.F.R. 265.377, effective July 1, 2005.

Section 5. Closure The subject matter shall be governed by 40 C.F.R. 265.381, effective July 1, 2005.

Section 6. Open Burning; Waste Explosives The subject matter shall be governed by 40 C.F.R. 265.382, effective July 1, 2005.

Section 7. Interim Status Thermal Treatment Devices Burning Particular Hazardous Waste The subject matter shall be governed by 40 C.F.R. 265.383, effective July 1, 2005. [Applicability The requirements in this administrative regulation apply to owners or operators of sites or facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion except as Section 1 of 401 KAR 35.010 provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of 401 KAR 35.240 if the unit is an incinerator, and 401 KAR 36.020 if the unit is a boiler (as defined in 401 KAR 36.005) or an industrial furnace (as defined in 401 KAR 36.005).

Section 2. General Operating Requirements Before adding hazardous waste, the owner or operator shall bring his thermal treatment process to steady state (normal) conditions of operation (including steady state operating temperature) using auxiliary fuel or other means unless the process is a noncontinuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

Section 3. Waste Analysis In addition to the waste analyses required by Section 4 of 401 KAR 35.020, the owner or operator shall sufficiently analyze any waste which he has not previously treated in his thermal process to enable him to establish steady state (normal) or other appropriate (for a noncontinuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine-

- (1) Heating value of the waste;
- (2) Halogen content and sulfur content in the waste; and
- (3) Concentrations in the waste of lead and mercury unless the owner or operator has written, documented data that show that the element is not present.

Section 4. Monitoring and Inspections The owner or operator shall conduct, at a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(1) Existing instruments which relate to temperature and emission control (if an emission control device is present) shall be monitored at least every fifteen (15) minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions shall be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxil-

ary fuel feed, treatment process temperature, and relevant process flow and level controls.

(2) The stack plume (emissions), where present, shall be observed visually at least hourly for normal appearance (color and opacity). The operator shall immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

(3) The complete thermal treatment process and associated equipment (such as pumps, valves, conveyors, and pipes) shall be inspected at least daily for leaks, spills and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

Section 5. Closure At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including but not limited to ash) from the thermal treatment process or equipment.

Section 6. Open Burning; Waste Explosives Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives shall do so in accordance with Table 1 of this section and in a manner that does not threaten human health or the environment.

Pounds of Waste Explosives or Propellants	Minimum Distance from Open Burning or Detonation to the Property of Others
0 to 100	204 meters (approx. 670 feet)
101 to 1,000	380 meters (approx. 1,250 feet)
1,001 to 10,000	630 meters (approx. 1,730 feet)
10,001 to 30,000	690 meters (approx. 2,260 feet)

Section 7. Interim Status Thermal Treatment Devices Burning Particular Hazardous Wastes (1) Owners or operators of thermal treatment devices subject to the requirements of this administrative regulation may burn EPA Hazardous Wastes Numbers F020, F021, F022, F023, F026, or F027 (chlorinated dioxins, dibenzofurans, and phenols) if they receive a certification from the cabinet that they can meet the performance standards of 401 KAR 34.240 when they burn these wastes.

(2) The following standards and procedures shall be used in determining whether to certify a thermal treatment unit:

(a) The owner or operator shall submit an application to the cabinet containing the applicable information in 401 KAR 38.100 and Section 3 of 401 KAR 38.060 demonstrating that the thermal treatment unit can meet the standards of 401 KAR 34.240 when they burn these wastes.

(b) The cabinet shall issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in 401 KAR 34.240. Notification of this tentative decision shall be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The cabinet shall accept comment on the tentative decision for sixty (60) days. The cabinet may also hold a public hearing upon request or at his discretion.

(c) After the close of the public comment period, the cabinet shall issue a decision whether or not to certify the thermal treatment unit.]

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:260. Chemical, physical and biological treatment (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart Q

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 40 C.F.R. 265 Subpart Q

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. ~~[This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.]~~ This administrative regulation establishes minimum standards for chemical, physical and biological treatment.

Section 1. Applicability The subject matter shall be governed by 40 C.F.R. 265.400, effective July 1, 2005.

Section 2. General Operating Requirements. The subject matter shall be governed by 40 C.F.R. 265.401, effective July 1, 2005.

Section 3. Waste Analysis and Trial Tests. The subject matter shall be governed by 40 C.F.R. 265.402, effective July 1, 2005.

Section 4. Inspections The subject matter shall be governed by 40 C.F.R. 265.403, effective July 1, 2005.

Section 5. Closure The subject matter shall be governed by 40 C.F.R. 265.404, effective July 1, 2005.

Section 6. Special Requirements for Ignitable or Reactive Waste The subject matter shall be governed by 40 C.F.R. 265.405, effective July 1, 2005.

Section 7. Special Requirements for Incompatible Wastes. The subject matter shall be governed by 40 C.F.R. 265.406, effective July 1, 2005. ~~[The requirements in this administrative regulation apply to owners and operators of sites or facilities which treat hazardous wastes by chemical, physical or biological methods in other than tanks, surface impoundments, and land treatment facilities, except as Section 1 of 401 KAR 35:010 provides otherwise. Chemical, physical and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities must be conducted in accordance with 401 KAR 35:190, 35:200 and 35:220, respectively.]~~

~~Section 2. General Operating Requirements. (1) Chemical, physical, or biological treatment of hazardous waste must comply with Section 8(2) of 401 KAR 35:020.~~

~~(2) Hazardous wastes or treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode or otherwise fail before the end of its intended life.~~

~~(3) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment must be equipped with a means to stop this inflow (e.g., a waste feed cutoff system or bypass system to a standby containment device).~~

~~Section 3. Waste Analysis and Trial Tests. In addition to the waste analysis required by Section 4 of 401 KAR 35:020, whenever:~~

~~(1) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or~~

~~(2) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste,~~

~~(3) The owner or operator must before treating the different~~

~~waste or using the different process or equipment comply with paragraph (a) or (b) of this subsection to show that this proposed treatment will meet all the requirements of Section 2(1) and (2) of this administrative regulation:~~

~~(a) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests), or~~

~~(b) Obtain written, documented information on similar treatment of similar waste under similar operating conditions to show that this proposed treatment will meet all applicable requirements of Section 2(1) and (2) of this administrative regulation.~~

~~Section 4. Inspections. The owner or operator of a treatment facility must inspect (where present):~~

~~(1) Discharge control and safety equipment (e.g., waste feed cutoff systems, bypass systems, drainage systems and pressure relief systems), at least once each operating day, to ensure that it is in good working order;~~

~~(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;~~

~~(3) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and~~

~~(4) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).~~

~~Section 5. Closure. At closure, all hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.~~

~~Section 6. Special Requirements for Ignitable or Reactive Waste. Ignitable or reactive waste must not be placed in a treatment process or equipment unless:~~

~~(1) The waste is treated, rendered or mixed before or immediately after placement in the treatment process or equipment so that:~~

~~(a) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under Section 2 or 4 of 401 KAR 31:030, and~~

~~(b) Section 8(2) of 401 KAR 35:020 is complied with, or
 (2) The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.~~

~~Section 7. Special Requirements for Incompatible Wastes (1) Incompatible wastes or incompatible wastes and materials (see 401 KAR 35:330 for examples) must not be placed in the same treatment process or equipment, unless Section 8(2) of 401 KAR 35:020 is complied with.~~

~~(2) Hazardous waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless Section 8(2) of 401 KAR 35:020 is complied with.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED BY LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:270. Underground injection (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart R

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 40 C.F.R. 265 Subpart R

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-

520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. ~~[This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.]~~ This administrative regulation establishes minimum standards for underground injection.

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 265.430, effective July 1, 2005.

~~[Except as Section 1 of 401 KAR 35.010 provides otherwise:~~

~~(1) The owner or operator of a site or facility which disposes of hazardous waste by underground injection is not excluded from the requirements of 401 KAR 35.070 through 35.130.~~

~~(2) The requirements of this administrative regulation apply to owners and operators of wells used to dispose of hazardous waste which are classified as Class I under 40 C.F.R. 144.6(a) and which are classified as Class IV under 40 C.F.R. 144.6.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department for Environmental Protection

Division of Waste Management

(As Amended at ARRS, May 8, 2007)

401 KAR 35:275. Air emission standards for process vents (Interim Status) [(4S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart AA

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, ~~49 C.F.R. 265 Subpart AA~~

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 by establishing] standards for air emissions for process vents that qualify for interim status. [To implement provisions of KRS 224.46-520 and to establish standards for air emissions for process vents.]

Section 1. Definitions. The subject matter shall be governed by 40 C.F.R. 265.1031, effective July 1, 2005.

Section 2. Applicability. The subject matter shall be governed by 40 C.F.R. 265.1030(a), (b), and (d), effective July 1, 2005.

Section 3 Standards for:] Process Vents. The subject matter shall be governed by 40 C.F.R. 265.1032, effective July 1, 2005.

Section 4. Standards for:] Closed-vent Systems and Control Devices. The subject matter shall be governed by 40 C.F.R. 265.1033, effective July 1, 2005.

Section 5 Test Methods and Procedures. The subject matter shall be governed by 40 C.F.R. 265.1034, effective July 1, 2005.

Section 6. Recordkeeping Requirements. The subject matter shall be governed by 40 C.F.R. 265.1035, effective July 1, 2005.

~~[As used in this administrative regulation, all terms have the meaning given them in 401 KAR 35.006.~~

~~Section 2. Applicability. (1) This administrative regulation applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section 1 of 401 KAR 35.010.~~

~~(2) Except for Section 5(4) and (5) of this administrative regulation, this administrative regulation applies to process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least ten (10) ppmw, if these operations are conducted in:~~

~~(a) Units that are subject to the permitting requirements of part 270; or~~

~~(b) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 401 KAR Chapter 38.~~

~~Section 3. Standards: Process Vents. (1) The owner or operator of a facility with process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations at least ten (10) ppmw shall either:~~

~~(a) Reduce total organic emissions from all affected process vents at the facility below one and four tenths (1.4) kg/h (three (3) lb/h) and two and eight tenths (2.8) Mg/yr (three and one tenth (3.1) tons/yr); or~~

~~(b) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by ninety five (95) weight percent.~~

~~(2) If the owner or operator installs a closed vent system and control device to comply with the provisions of subsection (1) of this section, the closed vent system and control device shall meet the requirements of Section 4 of this administrative regulation.~~

~~(3) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Section 5(3) of this administrative regulation.~~

~~(4) When an owner or operator and the cabinet do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the test methods in Section 5(3) of this administrative regulation shall be used to resolve the disagreement.~~

~~Section 4. Standards: Closed-vent Systems and Control Devices. (1)(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this part shall comply with this section.~~

~~(b) The owner or operator of an existing facility who cannot install a closed vent system and control device to comply with this administrative regulation on December 21, 1990 shall prepare an implementation schedule that includes dates by which the closed vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to eighteen (18) months after December 21, 1990 for installation and start-up. All units that begin operation after December 21, 1990 shall comply with this administrative regulation immediately (that is, shall have control devices installed and operating on start-up of the affected unit), the two (2) year implementation schedule does not apply to these units.~~

~~(2) A control device involving vapor recovery (for example, a condenser or absorber) shall be designed and operated to recover the organic vapors vented to it with an efficiency of ninety five (95) weight percent or greater unless the total organic emission limits of Section 3(1)(a) of this administrative regulation for all affected process vents can be attained at an efficiency less than ninety five (95) weight percent.~~

~~(3) An enclosed combustion device (for example, a vapor in-~~

incinerator, boiler, or process heater) shall be designed and operated to reduce the organic emissions vented to it by ninety-five (95) weight percent or greater; to achieve a total organic compound concentration of twenty (20) ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to three (3) percent oxygen; or to provide a minimum residence time of 0.60 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame combustion zone of the boiler or process heater.

(4)(a) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in subsection (5)(a) of this section, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

(b) A flare shall be operated with a flame present at all times, as determined by the methods specified in subsection (6)(b)3 of this section.

(c) A flare shall be used only if the net heating value of the gas being combusted is eleven and two tenths (11.2) MJ/sec (300 Btu/sec) or greater, if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/sec (200 Btu/sec) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in subsection (5)(b) of this section.

(d)1. A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in subsection (5)(c) of this section, of less than eighteen and three tenths (18.3) m/s (sixty (60) ft/s), except as provided in subparagraphs 2 and 3 of this paragraph.

2. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (5)(c) of this section, equal to or greater than eighteen and three tenths (18.3) m/s (sixty (60) ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than thirty seven and three tenths (37.3) MJ/sec (1,000 Btu/sec).

3. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (5)(c) of this section, less than the velocity, V_{max} , as determined by the method specified in subsection (5)(d) of this section, and less than 122 m/s (400 ft/s) is allowed.

(e) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in subsection (5)(e) of this section.

(f) A flare used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(5)(a) Reference Method 22 in 40 C.F.R. Part 60 shall be used to determine the compliance of a flare with the visible emission provisions of this administrative regulation. The observation period is two (2) hours and shall be used according to Method 22.

(b) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

1. H_T = Net heating value of the sample, MJ/sec; where the net enthalpy per mole of offgas is based on combustion at twenty-five (25) degrees Centigrade and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is twenty (20) degrees Centigrade;

2. K = Constant, 1.74×10^{-7} (one (1)/ppm) (g mol/sec) (MJ/kcal); where standard temperature for (g mol/sec) is twenty (20) degree Centigrade;

3. C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 C.F.R. Part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82 (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30-010); and

4. H_i = Net heat of combustion of sample component i, kcal/g mol at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83 (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30-010) if published values are not available or cannot be calculated.

(e) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 C.F.R. Part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(d) The maximum allowed velocity in m/s, V_{max} , for a flare complying with subsection (4)(d)3 of this section shall be determined by the following equation:

$$\log_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

where:

1. H_T = The net heating value as determined in paragraph (e)(2) of this section.

2. 28.8 = Constant.

3. 31.7 = Constant.

(e) The maximum allowed velocity in m/s, V_{max} , for an air-assisted flare shall be determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (H_T)$$

where:

1. 8.706 = Constant.

2. 0.7084 = Constant.

3. H_T = The net heating value as determined in paragraph (b) of this subsection.

(6) The owner or operator shall monitor and inspect each control device required to comply with this section to ensure proper operation and maintenance of the control device by implementing the following requirements:

(a) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet, but before being combined with other vent streams;

(b) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

1. For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus one (1) percent of the temperature being monitored in degrees Centigrade or plus or minus five tenths (0.5) degrees Centigrade, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone;

2. For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two (2) locations and have an accuracy of plus or minus one (1) percent of the temperature being monitored in degrees Centigrade or plus or minus five tenths (0.5) degrees Centigrade, whichever is greater. One (1) temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet;

3. For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame;

4. For a boiler or process heater having a design heat input capacity less than forty-four (44) MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus one (1) percent of the temperature being monitored in degrees Centigrade or plus or minus five tenths (0.5) degrees Centigrade, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone;

5. For a boiler or process heater having a design heat input capacity greater than or equal to forty-four (44) MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used;

6. For a condenser, either:

a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

b. A temperature monitoring device equipped with a continuous

recorder. The device shall be capable of monitoring temperature at two (2) locations and have an accuracy of plus or minus one (1) percent of the temperature being monitored in degrees Centigrade or plus or minus five tenths (0.5) degrees Centigrade, whichever is greater. One (1) temperature sensor shall be installed at a location in the exhaust vent stream from the condenser, and a second temperature sensor shall be installed at a location in the coolant fluid exiting the condenser;

7. For a carbon adsorption system such as a fixed bed carbon absorber that regenerates the carbon bed directly in the control device, either:

a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or

b. A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle; and

(c) Inspect the readings from each monitoring device required by paragraphs (a) and (b) of this subsection at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this administrative regulation.

(7) An owner or operator using a carbon adsorption system, such as a fixed bed carbon absorber that regenerates the carbon bed directly on site in the control device, shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life required by Section 6(2)(d)3f of this administrative regulation.

(8) An owner or operator using a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly on site in the control device, shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one (1) of the following procedures:

(a) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than twenty (20) percent of the time required to consume the total carbon working capacity established as a requirement of Section 6(2)(d)3g of this administrative regulation, whichever is longer; or

(b) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval required by Section 6(2)(d)3g of this administrative regulation.

(9) An owner or operator of an affected facility seeking to comply with the provisions of this administrative regulation by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system shall develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(10)(a) Closed vent systems shall be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and by visual inspections, as determined by the methods specified as Section 5(2) of this administrative regulation.

(b) Closed vent systems shall be monitored to determine compliance with this section during the initial leak detection monitoring, which shall be conducted by the date that the facility becomes subject to the provisions of this section, annually, and at other times as requested by the cabinet. For the annual leak detection monitoring after the initial leak detection monitoring, the owner or operator is not required to monitor those closed vent system components which continuously operate in vacuum service or those closed vent systems joints, seams or other connections that are permanently or semipermanently sealed (for example, a welded joint between two (2) sections of metal pipe or a bolted and gasketed pipe flange).

(c) Detectable emissions, as indicated by an instrument reading greater than 500 ppm and visual inspections, shall be controlled as soon as practicable, but not later than fifteen (15) calendar days after the emission is detected.

dar days after the emission is detected.

(d) A first attempt at repair shall be made no later than five (5) calendar days after the emission is detected.

(11) Closed vent systems and control devices used to comply with provisions of this administrative regulation shall be operated at all times when emissions may be vented to them.

(12) The owner or operator using a carbon adsorption system shall document that all carbon removed from the control device is managed in one (1) of the following manners:

(a) Regenerated or reactivated in a thermal treatment unit that is permitted under 401 KAR 34:250 or 35:250;

(b) Incinerated by a process that is permitted under 401 KAR 34:240 or 35:240; or

(c) Burned in a boiler or industrial furnace that is permitted under 401 KAR 36.020.

Section 5. Test Methods and Procedures. (1) Each owner or operator subject to this administrative regulation shall comply with the test methods and procedures requirements provided in this section.

(2) When a closed vent system is tested for compliance with no detectable emissions, as required in Section 4(10) of this administrative regulation, the test shall comply with the following requirements:

(a) Monitoring shall comply with Reference Method 21 in 40 C.F.R. Part 60.

(b) The detection instrument shall meet the performance criteria of Reference Method 21.

(c) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(d) Calibration gases shall be:

1. Zero air (less than ten (10) ppm of hydrocarbon in air); and

2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(e) The background level shall be determined as set forth in Reference Method 21.

(f) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(g) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(3) Performance tests to determine compliance with Section 3(1) of this administrative regulation and with the total organic compound concentration limit of Section 4(3) shall comply with the following:

(a) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

1. Method 2 in 40 C.F.R. Part 60 for velocity and volumetric flow rate.

2. Method 18 in 40 C.F.R. Part 60 for organic content.

3. Each performance test shall consist of three (3) separate runs; each run conducted for at least one (1) hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

4. Total organic mass flow rates shall be determined by the following equation:

$$R = \sum_{i=1}^n E_i = Q_{vol} [\sum C_i MW_i] (0.0416) (10^{-6})$$

where:

a. E_i = Total organic mass flow rate, kg/h;

b. Q_{vol} = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, decm³/h;

c. n = Number of organic compounds in the vent gas;

d. C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

e. MW_i = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

f. 0.0416 = Conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg); and

g. 10⁻⁶ = Conversion from ppm, ppm³.

6. The annual total organic emission rate shall be determined by the following equation:

$$E_A = (E_n)(H)$$

where:

a. E_A = Total organic mass emission rate, kg/y; and

b. E_n = Total organic mass flow rate for the process vent, kg/h; and

c. H = Total annual hours of operations for the affected unit, h.

6. Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates (E_n, as determined in paragraph (a)4 of this subsection) and by summing the annual total organic mass emission rates (E_A, as determined in paragraph (a)5 of this subsection) for all affected process vents at the facility.

(b) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(c) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for the test methods specified in of this section; and

2. Safe sampling platform(s); and

3. Safe access to sampling platform(s); and

4. Utilities for sampling and testing equipment.

(d) For the purpose of making compliance determinations, the time-weighted average of the results of the three (3) runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one (1) of the three (3) runs will be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the cabinet's approval, be determined using the average of the results of the two (2) other runs.

(4) To show that a process vent associated with a hazardous waste distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this administrative regulation, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the hazardous waste management unit is less than ten (10) ppmw using one (1) of the following two (2) methods:

(a) Direct measurement of the organic concentration of the waste using the following procedures:

1. The owner or operator shall take a minimum of four (4) grab samples of waste for each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

2. For waste generated on site, the grab samples shall be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation fractionation, thin film evaporation, solvent extraction, or air or steam stripping operation. For waste generated off site, the grab samples shall be collected at the inlet to the first hazardous waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

3. Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060 or 8240 of SW 846 (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30 010).

4. The arithmetic mean of the results of the analyses of the four (4) samples shall apply for each waste stream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit; or

(b) Using knowledge of the waste to determine that its total

organic concentration is less than ten (10) ppmw. Documentation of the waste determination shall be required. Examples of documentation that may be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a waste stream having a total organic content less than ten (10) ppmw, or prior specification analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(5) The determination that distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations manage hazardous wastes with time-weighted annual average total organic concentrations less than ten (10) ppmw shall be made as follows:

(a) By December 21, 1990 or by the date when the waste is first managed in a hazardous waste management unit, whichever is later; and

(b) For continuously generated waste, annually; and

(c) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

(6) When an owner or operator and the cabinet do not agree on whether a distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least ten (10) ppmw based on knowledge of the waste, the procedures in Method 8240 may be used to resolve the dispute.

Section 6-Recordkeeping Requirements. (1)(a) Each owner or operator subject to this administrative regulation shall comply with the recordkeeping requirements of this section.

(b) An owner or operator of more than one (1) hazardous waste management unit subject to the provisions of this administrative regulation may comply with the recordkeeping requirements for these hazardous waste management units in one (1) recordkeeping system if the system identifies each record by each hazardous waste management unit.

(2) Owners and operators shall record the following information in the facility operating record:

(a) For facilities that comply with the provisions of Section 4(1)(b) of this administrative regulation, an implementation schedule that includes dates by which the closed vent system and control device will be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be in the facility operating record by December 21, 1990; and

(b) Up-to-date documentation of compliance with the process vent standards in Section 3 of this administrative regulation, including:

1. Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit; estimated emission rates for each affected vent and for the overall facility (that is, the total emissions for all affected vents at the facility); and the approximate location within the facility of each affected unit (for example, by identifying the hazardous waste management units on a facility plot plan); and

2. Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values (for example, temperatures, flow rates or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (for example, managing a waste of different composition or increasing operating hours of affected hazardous waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination shall be required; and

(c) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic com-

pound concentration achieved by the control device, a performance test plan. The test plan shall include:

1. A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

2. A detailed engineering description of the closed-vent system and control device including:

- a. Manufacturer's name and model number of control device;
- b. Type of control device
- c. Dimensions of the control device;
- d. Capacity; and
- e. Construction materials.

3. A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(d) Documentation of compliance with Section 4 of this administrative regulation shall include the following information:

1. A list of all information references and sources used in preparing the documentation.

2. Records, including the dates, of each compliance test required by Section 4(10) of this administrative regulation.

3. If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" (incorporated in 40 C.F.R. 260.11 which is adopted in Section 3 of 401 KAR 30:010) or other engineering texts acceptable to the cabinet that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with clauses a to g of this subparagraph may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

a. For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

b. For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

c. For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

d. For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Section 4(4) of this administrative regulation.

e. For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

f. For a carbon adsorption system such as a fixed bed absorber that regenerates the carbon bed directly on site in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regen-

eration cycle, duration of the carbon bed steaming and cooling and drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

g. For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on site in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

4. A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

5. A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of ninety five (95) percent or greater unless the total organic concentration limit of Section 3(1) of this administrative regulation is achieved at an efficiency less than ninety five (95) weight percent or the total organic emission limits of Section 3(1) of this administrative regulation for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than ninety five (95) weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

6. If performance tests are used to demonstrate compliance, all test results.

(3) Design documentation and monitoring, operating, and inspection information for each closed vent system and control device required to comply with the provisions of this administrative regulation shall be recorded and kept up to date in the facility operating record. The information shall include:

(a) Description and date of each modification that is made to the closed vent system or control device design.

(b) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 4(6)(a) and (b) of this administrative regulation.

(c) Monitoring, operating, and inspection information required by Section 4(6) to (10) of this administrative regulation.

(d) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

1. For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Centigrade, period when the combustion temperature is below 760 degrees Centigrade;

2. For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of ninety five (95) percent or greater, period when the combustion zone temperature is more than twenty eight (28) degrees Centigrade below the design average combustion zone temperature established as a requirement of subsection (2)(d)3a of this section;

3. For a catalytic vapor incinerator, period when:

- a. Temperature of the vent stream at the catalyst bed inlet is more than twenty eight (28) degrees Centigrade below the average temperature of the inlet vent stream established as a requirement of subsection (2)(d)3b of this section; or
- b. Temperature difference across the catalyst bed is less than eighty (80) percent of the design average temperature difference established as a requirement of subsection (2)(d)3b of this section;

4. For a boiler or process heater, period when:

- a. Flame zone temperature is more than twenty eight (28) degrees Centigrade below the design average flame zone temperature established as a requirement of subsection (2)(d)3c of this section, or

b. Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (2)(d)3e of this section;

5. For a flare, period when the pilot flame is not ignited;

6. For a condenser that complies with Section 4(6)(b)6a of this administrative regulation, period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than twenty (20) percent greater than the design outlet organic compound concentration level established as a requirement of subsection (2)(d)3e of this section;

7. For a condenser that complies with Section 4(6)(b)6b of this administrative regulation, period when:

a. Temperature of the exhaust vent stream from the condenser is more than six (6) degrees Centigrade above the design average exhaust vent stream temperature established as a requirement of subsection (2)(d)3e of this section, or

b. Temperature of the coolant fluid exiting the condenser is more than six (6) degrees Centigrade above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (2)(d)3e of this section;

8. For a carbon adsorption system such as a fixed bed carbon absorber that regenerates the carbon bed directly on site in the control device and complies with Section 4(6)(b)7a of this administrative regulation, period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than twenty (20) percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (2)(d)3f of this section;

9. For a carbon adsorption system such as a fixed bed carbon absorber that regenerates the carbon bed directly on site in the control device and complies with Section 4(6)(b)7b of this administrative regulation, period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (2)(d)3f of this section;

(e) Explanation for each period recorded under paragraph (d) of this subsection of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(f) For carbon adsorption systems operated subject to Section 4(7) or (8)(b) of this administrative regulation, date when existing carbon in the control device is replaced with fresh carbon.

(g) For carbon adsorption systems operated subject to Section 4(8)(a) of this administrative regulation, a log that records:

1. Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and

2. Date when existing carbon in the control device is replaced with fresh carbon.

(h) Date of each control device start-up and shutdown.

(4) Records of the monitoring, operating, and inspection information required by subsections (3)(e) to (h) of this section need be kept only three (3) years.

(5) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device shall be recorded in the facility operating record.

(6) Up-to-date information and data used to determine whether or not a process vent is subject to Section 3 of this administrative regulation including supporting documentation as required by Section 5(4)(b) of this administrative regulation when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced to used, shall be recorded in a log that is kept in the facility operating record.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 35:280. Air emission standards for equipment leaks [Interim Status] [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Subpart BB

STATUTORY AUTHORITY: KRS 224.46-505, 224.46-520[~~40 C.F.R. 265 Subpart BB~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the post-closure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-505 and 224.46-520 by establishing] standards for air emissions from equipment leaks. [To implement provisions of KRS 224.46-505 and 224.46-520 and to establish standards for air emission and equipment leaks.]

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 265.1050(a) through (e) and (g), effective July 1, 2005.

Section 2. Standards for:] Pumps in Light Liquid Service. The subject matter shall be governed by 40 C.F.R. 265.1052, effective July 1, 2005.

Section 3. Standards for:] Compressors. The subject matter shall be governed by 40 C.F.R. 265.1053, effective July 1, 2005.

Section 4. Standards for:] Pressure Relief Devices in Gas or Vapor [Gas/Vapor] Service. The subject matter shall be governed by 40 C.F.R. 265.1054, effective July 1, 2005.

Section 5. Standards for:] Sampling Connection Systems. The subject matter shall be governed by 40 C.F.R. 265.1055, effective July 1, 2005.

Section 6. Standards for:] Open-ended Valves or Lines. The subject matter shall be governed by 40 C.F.R. 265.1056, effective July 1, 2005.

Section 7. Standards for:] Valves in Gas or Vapor [Gas/Vapor] Service or in Light Liquid Service. The subject matter shall be governed by 40 C.F.R. 265.1057, effective July 1, 2005.

Section 8. Standards for Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light or Heavy Liquid Service, and Flanges and Other Connectors. The subject matter shall be governed by 40 C.F.R. 265.1058, effective July 1, 2005.

Section 9. Standards for:] Delay of Repair. The subject matter shall be governed by 40 C.F.R. 265.1059, effective July 1, 2005.

Section 10. Standards for:] Closed-vent Systems and Control Devices. The subject matter shall be governed by 40 C.F.R. 265.1060, effective July 1, 2005.

Section 11. Alternative Standards for Valves in Gas or Vapor [Gas/Vapor] Service or in Light Liquid Service: Percentage of Valves Allowed to Leak. The subject matter shall be governed by 40 C.F.R. 265.1061, effective July 1, 2005.

Section 12. Alternative Standards for Valves in Gas or Vapor [Gas/Vapor] Service or in Light Liquid Service: Skip Period Leak Detection and Repair. The subject matter shall be governed by 40

C.F.R. 265.1062, effective July 1, 2005.

Section 13. Test Methods and Procedures. The subject matter shall be governed by 40 C.F.R. 265.1063, effective July 1, 2005.

Section 14. Recordkeeping Requirements. The subject matter shall be governed by 40 C.F.R. 265.1064, effective July 1, 2005. [Definitions.—As used in this administrative regulation, all terms shall have the meaning given them in 401 KAR 35.006.

Section 2. Applicability. (1) This administrative regulation applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section 1 of 401 KAR 35.010.

(2) Except as provided in Section 10(10) of this administrative regulation, this administrative regulation applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight that are managed in:

(a) Units that are subject to the permitting requirements of 401 KAR Chapter 38, or

(b) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 401 KAR Chapter 38.

(3) Each piece of equipment to which this administrative regulation applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

(4) Equipment that is in vacuum service is excluded from the requirements of this section and Sections 3 to 11 of this administrative regulation if it is identified as required in Section 15(7)(e) of this administrative regulation.

Section 3. Standards: Pumps in Light Liquid Service. (1)(a) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Section 14(2) of this administrative regulation, except as provided in subsections (4) to (6) of this section.

(b) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(2)(a) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(b) If there are indications of liquids dripping from the pump seal, a leak is detected.

(3)(a) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section 10 of this administrative regulation.

(b) A first attempt at repair (for example, tightening the packing gland) shall be made no later than five (5) calendar days after each leak is detected.

(4) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (1) of this section, provided the following requirements are met:

(a) Each dual mechanical seal system shall be:

1. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

2. Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 11 of this administrative regulation; or

3. Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.

(b) The barrier fluid system shall not be a hazardous waste with organic concentrations ten (10) percent or greater by weight.

(c) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(d) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(e) 1. Each sensor, as described in paragraph (c) of this subsection, shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

2. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) 1. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (e) 2 of this subsection, a leak is detected.

2. When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section 10 of this administrative regulation.

3. A first attempt at repair (for example, relapping the seal) shall be made no later than five (5) calendar days after each leak is detected.

(5) Any pump that is designated, as described in Section 15(7)(b) of this administrative regulation, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (1), (3), and (4) of this section if the pump meets the following requirements:

(a) It shall have no externally actuated shaft penetrating the pump housing;

(b) It shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section 14(2) of this administrative regulation; and

(c) It shall be tested for compliance with paragraph (e) of this subsection initially upon designation, annually, and at other times as requested by the cabinet.

(6) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 11 of this administrative regulation, it is exempt from the requirements of subsections (1) to (5) of this section.

Section 4. Standards: Compressors. (1) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (8) and (9) of this section.

(2) Each compressor seal system, as required in subsection (1) of this section, shall be:

(a) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure; or

(b) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 11 of this administrative regulation; or

(c) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to atmosphere.

(3) The barrier fluid shall not be a hazardous waste with organic concentrations ten (10) percent or greater by weight.

(4) Each barrier fluid system as described in subsections (1) to (3) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(5)(a) Each sensor as required in subsection (4) of this section shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(b) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (5)(b) of this section, a leak is detected.

(7)(a) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section 10 of this administrative regulation.

(b) A first attempt at repair (for example, tightening the packing gland) shall be made no later than five (5) calendar days after each leak is detected.

(8) A compressor is exempt from the requirements of subsections (1) and (2) of this section if it is equipped with a closed-vent

system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 11 of this administrative regulation, except as provided in subsection (9) of this section.

(b) Any compressor that is designated, as described in Section 15(8)(b), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of subsections (1) to (8) of this section if the compressor:

(a) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 14(3) of this administrative regulation; and

(b) Is tested for compliance with paragraph (a) of this subsection initially upon designation, annually, and at other times as requested by the cabinet.

Section 5. Standards: Pressure Relief Devices in Gas and Vapor Service. (1) Except during pressure releases, each pressure relief device in gas and vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 14(3) of this administrative regulation.

(2)(a) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five (5) calendar days after each pressure release, except as provided in Section 10 of this administrative regulation.

(b) No later than five (5) calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 14(3) of this administrative regulation.

(3) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 11 of this administrative regulation is exempt from the requirements of subsections (1) and (2) of this section.

Section 6. Standards: Sampling Connecting Systems. (1) Each sampling connection system shall be equipped with a closed-purge system or closed-vent system.

(2) Each closed-purge system or closed-vent system as required in subsection (1) of this section shall:

(a) Return the purged hazardous waste stream directly to the hazardous waste management process line with no detectable emissions to atmosphere; or

(b) Collect and recycle the purged hazardous waste stream with no detectable emissions to atmosphere; or

(c) Be designed and operated to capture and transport all the purged hazardous waste stream to a control device that complies with the requirements of Section 11 of this administrative regulation.

(3) In situ sampling systems are exempt from the requirements of subsections (1) and (2) of this section.

Section 7. Standards: Open-ended Valves or Lines. (1)(a) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(b) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall comply with subsection (1) of this section at all other times.

Section 8. Standards: Valves in Gas and Vapor Service or in Light Liquid Service. (1) Each valve in gas and vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Section 14(2) of this administrative regulation and shall comply with subsections (2) to (5) of this section, except as pro-

vided in subsections (6), (7), and (8) of this section and Sections 12 and 13 of this administrative regulation.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3)(a) Any valve for which a leak is not detected for two (2) successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(b) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two (2) successive months.

(4)(a) When a leak is detected, it shall be repaired as soon as practicable, but no later than fifteen (15) calendar days after the leak is detected, except as provided in Section 10 of this administrative regulation.

(b) A first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.

(5) First attempts at repair include, but are not limited to, the following best practices where practicable:

(a) Tightening of bonnet bolts;

(b) Replacement of bonnet bolts;

(c) Tightening of packing gland nuts;

(d) Injection of lubricant into lubricated packing.

(6) Any valve that is designated, as described in Section 15(7)(b) of this administrative regulation, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection (1) of this section if the valve:

(a) Has no external actuating mechanism in contact with the hazardous waste stream;

(b) Is operated with emissions less than 500 ppm above background as determined by the method specified in Section 14(3) of this administrative regulation; and

(c) Is tested for compliance with paragraph (b) of this subsection initially upon designation, annually, and at other times as requested by the cabinet.

(7) Any valve that is designated, as described in Section 15(8)(a) of this administrative regulation, as an unsafe-to-monitor valve is exempt from the requirements of subsection (1) of this section if:

(a) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (1) of this section; and

(b) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(8) Any valve that is designated, as described in Section 15(8)(b) of this administrative regulation, as a difficult-to-monitor valve is exempt from the requirements of subsection (1) of this section if:

(a) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than two (2) meters above a support surface; and

(b) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990;

(c) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

Section 9. Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors. (1) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five (5) days by the method specified in Section 14(2) of this administrative regulation if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3)(a) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section 10 of this administrative regulation.

(b) The first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.

(4) First attempts at repair include, but are not limited to, the best practices described under Section 8(5) of this administrative regulation.

Section 10. Standards. Delay of Repair. (1) Delay of repair of equipment for which leaks have been detected may be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In this case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.

(2) Delay of repair of equipment for which leaks have been detected may be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least ten (10) percent by weight.

(3) Delay of repair for valves may be allowed if:

(a) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair; and

(b) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 11 of this administrative regulation.

(4) Delay of repair for pumps may be allowed if:

(a) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and

(b) Repair is completed as soon as practicable, but not later than six (6) months after the leak was detected.

(5) Delay of repair beyond a hazardous waste management unit shutdown may be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown shall not be allowed unless the next hazardous waste management unit shutdown occurs sooner than six (6) months after the first hazardous waste management unit shutdown.

Section 11. Standards. Closed-vent Systems and Control Devices. Owners or operators of closed-vent systems and control devices shall comply with the provisions of Section 4 of 401 KAR 35-275.

Section 12. Alternative Standards for Valves in Gas and Vapor Service or in Light Liquid Service. Percentage of Valves Allowed to Leak. (1) An owner or operator subject to the requirements of Section 8 of this administrative regulation may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two (2) percent of the valves to leak.

(2) The following requirements shall be met if an owner or operator decides to comply with the alternative standard of allowing two (2) percent of valves to leak:

(a) The owner or operator shall notify the cabinet that the owner or operator has elected to comply with the requirements of this section;

(b) A performance test as specified in subsection (3) of this section shall be conducted initially upon designation, annually, and at other times requested by the cabinet; and

(c) If a valve leak is detected, it shall be repaired in accordance with Section 8(4) and (5) of this administrative regulation.

(3) Performance tests shall be conducted in the following manner:

(a) All valves subject to the requirements in Section 8 of this administrative regulation within the hazardous waste management unit shall be monitored within one (1) week by the methods specified in Section 14(2) of this administrative regulation;

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected, and

(c) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section 8 of this administrative regulation for which leaks are detected by the total number of valves subject to the requirements in Section 8 of this administrative regulation within the hazardous waste management unit.

(4) If an owner or operator decides no longer to comply with this section, the owner or operator shall notify the cabinet in writing

that the work practice standard described in Section 8(1) to (5) of this administrative regulation will be followed.

Section 13. Alternative Standards for Valves in Gas and Vapor Service or in Light Liquid Service. Skip Period Leak Detection and Repair. (1)(a) An owner or operator subject to the requirements of Section 8 of this administrative regulation may elect for all valves within a hazardous waste management unit to comply with one (1) of the alternative work practices specified in subsections (2)(b) and (c) of this section.

(b) An owner or operator shall notify the cabinet before implementing one (1) of the alternative work practices.

(2)(a) An owner or operator shall comply with the requirements for valves, as described in Section 8 of this administrative regulation, except as described in paragraphs (b) and (c) of this subsection.

(b) After two (2) consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two (2) percent, an owner or operator may begin to skip one (1) of the quarterly leak detection periods for the valves subject to the requirements in Section 8 of this administrative regulation.

(c) After five (5) consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two (2) percent, an owner or operator may begin to skip three (3) of the quarterly leak detection periods for the valves subject to the requirements in Section 8 of this administrative regulation.

(d) If the percentage of valves leaking is greater than two (2) percent, the owner or operators shall monitor monthly in compliance with the requirements in Section 8 of this administrative regulation, but may again elect to use this section after meeting the requirements of Section 8(3)(a) of this administrative regulation.

Section 14. Test Methods and Procedures. (1) Each owner or operator subject to the provisions of this administrative regulation shall comply with the test methods and procedures requirements provided in this section.

(2) Leak detection monitoring, as required in Sections 3 to 13 of this administrative regulation, shall comply with the following requirements:

(a) Monitoring shall comply with Reference Method 21 in 40 C.F.R. Part 60.

(b) The detection instrument shall meet the performance criteria of Reference Method 21.

(c) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(d) Calibration gases shall be:

1. Zero air (less than ten (10) ppm of hydrocarbon in air); and
2. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(e) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(3) When equipment is tested for compliance with no detectable emissions, as required in Sections 3(5), 4(9), 5, and 8(6) of this administrative regulation, the test shall comply with the following requirements:

(a) The requirements of subsections (2)(a) to (d) of this section shall apply;

(b) The background level shall be determined, as set forth in Reference Method 21;

(c) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21; and

(d) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(4) In accordance with the waste analysis plan required by Section 4(2) of 401 KAR 35-020, an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds ten (10) percent by weight using the following:

(a) Methods described in ASTM Methods D-2267-88, E-160-87, E-168-88, E-260-85 (incorporated in 40 C.F.R. 260.11 which is adopted in Section 3 of 401 KAR 30-010); or

(b) Method 9060 or 8240 of SW-846 (incorporated in 40 C.F.R.

260.11 which is adopted in Section 3 of 401 KAR 30.010); or

(e) Application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than ten (10) percent, or prior specification analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(5) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least ten (10) percent by weight, the determination can be revised only after following the procedures in subsection (4)(a) or (b) of this section.

(6) When an owner or operator and the cabinet do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least ten (10) percent by weight, the procedures in subsection (4)(a) or (b) of this section may be used to resolve the dispute.

(7) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

(8) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D 2879-86 (incorporated in 40 C.F.R. 260.11 which is adopted in Section 3 of 401 KAR 30.010).

(9) Performance tests to determine if a control device achieves ninety five (95) weight percent organic emission reduction shall comply with the procedures of Section 5(3)(a) to (d) of 401 KAR 35.275.

Section 15. Recordkeeping Requirements (1)(a) Each owner or operator subject to this administrative regulation shall comply with the recordkeeping requirements of this section.

(b) An owner or operator of more than one (1) hazardous waste management unit subject to this administrative regulation may comply with the recordkeeping requirements for these hazardous waste management units in one (1) recordkeeping system if the system identifies each record by each hazardous waste management unit.

(2) Owners and operators shall record the following information in the facility operating record:

(a) For each piece of equipment to which this administrative regulation applies:

1. Equipment identification number and hazardous waste management unit identification;
2. Approximate locations within the facility (for example, identify the hazardous waste management unit on a facility plot plan);
3. Type of equipment (for example, a pump or pipeline valve);
4. Percent by weight total organics in the hazardous waste stream at the equipment;
5. Hazardous waste state at the equipment (for example, gas and vapor or liquid); and
6. Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals").

(b) For facilities that comply with the provisions of Section 4(1)(b) of 401 KAR 35.275, an implementation schedule as specified in Section 4(1)(b) of 401 KAR 35.275, and

(c) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 6(2)(c) of 401 KAR 35.275.

(d) Documentation of compliance with Section 11 of this administrative regulation, including the detailed design documentation or performance test results specified in Section 6(2)(d) of 401 KAR 35.275.

(3) When each leak is detected as specified in Sections 3, 4, 8,

and 9 of this administrative regulation the following requirements apply:

(a) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 9(1) of this administrative regulation and the date the leak was detected, shall be attached to the leaking equipment.

(b) The identification on equipment, except on a valve, may be removed after it has been repaired.

(c) The identification on a valve may be removed after it has been monitored for two (2) successive months as specified in Section 8(3) of this administrative regulation and no leak has been detected during those two (2) months.

(4) When each leak is detected as specified in Sections 3, 4, 8, and 9 of this administrative regulation, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:

(a) The instrument and operator identification numbers and the equipment identification number;

(b) The date evidence of a potential leak was found in accordance with Section 9(1) of this administrative regulation;

(c) The date the leak was detected and the dates of each attempt to repair the leak;

(d) Repair methods applied in each attempt to repair the leak;

(e) "Above 10,000" if the maximum instrument reading measured by the methods specified in Section 14(2) of this administrative regulation after each repair attempt is equal to or greater than 10,000 ppm;

(f) "Repair delayed" and the reason for the delay if a leak is not repaired within fifteen (15) calendar days after discovery of the leak;

(g) Documentation supporting the delay of repair of a valve in compliance with Section 10(3) of this administrative regulation;

(h) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown;

(i) The expected date of successful repair of the leak if a leak is not repaired within fifteen (15) calendar days; and

(j) The date of successful repair of the leak.

(5) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section 11 of this administrative regulation shall be recorded and kept up to date in the facility operating record as specified in Section 6(3) of 401 KAR 35.275. Design documentation is specified in Section 6(3)(a) and (b) of 401 KAR 35.275 and monitoring, operating, and inspection information in Section 6(3)(c) to (h) of 401 KAR 35.275.

(6) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device shall be recorded in the facility operating record.

(7) The following information pertaining to all equipment subject to the requirements in Sections 3 to 11 of this administrative regulation shall be recorded in a log that is kept in the facility operating record:

(a) A list of identification numbers for equipment (except welded fittings) subject to this administrative regulation;

(b) 1. A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 3(5), 4(9), and 8(6) of this administrative regulation;

2. The designation of this equipment as subject to the requirements of Sections 3(5), 4(9), or 8(6) of this administrative regulation shall be signed by the owner or operator;

(c) A list of equipment identification numbers for pressure relief devices required to comply with Section 5(1) of this administrative regulation;

(d) 1. The dates of each compliance test required in Sections 3(5), 4(9), 5, and 8(6) of this administrative regulation;

2. The background level measured during each compliance test;

3. The maximum instrument reading measured at the equip-

ment during each compliance test, and

(e) A list of identification numbers for equipment in vacuum service;

(8) The following information pertaining to all valves subject to the requirements of Section 8(7) and (8) of this administrative regulation shall be recorded in a log that is kept in the facility operating record:

(a) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve; and

(b) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(9) The following information shall be recorded in the facility operating record for valves complying with Section 13 of this administrative regulation:

(a) A schedule of monitoring; and

(b) The percent of valves found leaking during each monitoring period.

(10) The following information shall be recorded in a log that is kept in the facility operating record:

(a) Criteria required in Sections 3(4)(e)2 and 4(5)(b) of this administrative regulation and an explanation of the criteria; and

(b) Any changes to these criteria and the reasons for the changes.

(11) The following information shall be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in the Section 2 of this administrative regulation and other specific administrative regulations:

(a) An analysis determining the design capacity of the hazardous waste management unit.

(b) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Sections 3 to 11 of this administrative regulation and an analysis determining whether these hazardous wastes are heavy liquids.

(c) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 3 to 11 of this administrative regulation. The record shall include supporting documentation as required by Section 14(4)(e) of this administrative regulation when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used. If the owner or operator takes any action (for example, changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 3 to 11 of this administrative regulation, then a new determination shall be required.

(12) Records of the equipment leak information required by subsection (4) of this section and the operating information required by subsection (5) of this section shall only be required to be kept for three (3) years.

(13) The owner or operator of any facility that is subject to this administrative regulation and to regulations at 40 C.F.R. Part 60 subpart VA or 40 C.F.R. Part 61 subpart V may elect to determine compliance with this subpart by documentation either pursuant to this section or pursuant to those provisions of 40 C.F.R. Part 60 or 61 to the extent that the documentation under the regulation at 40 C.F.R. Part 60 or 61 duplicates the documentation required under this administrative regulation. The documentation under the regulation at 40 C.F.R. Part 60 or 61 shall be kept with or made readily available with the facility operating record.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 35:281. Air emission standards for tanks, surface impoundments, and containers (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.01, 224.10, 224.46, 40 C.F.R. Part 265 Subpart CC

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530[~~40 C.F.R. Part 265 Subpart CC~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 and 224.46-530 by establishing] air emissions standards for tanks, surface impoundments, and containers that qualify for interim status. [This administrative regulation is equivalent to the corresponding federal regulations except the text of the federal regulations referenced in this administrative regulation includes dates that occurred before the effective date of the incorporation of those requirements into the administrative regulation. Such dates shall not be construed as creating a retroactive right or obligation under the Kentucky Hazardous Waste Regulations when that right or obligation did not exist in this regulation prior to the date the federal regulations were referenced. If a right or obligation existed under federal regulations based on a date in federal regulations and there is a period from the date cited in the incorporated text until the date they initially took effect in this regulation, nothing in this regulation shall contravene or countermand the legal application of the federal regulation for that period.] [To implement provisions of KRS 224.46-520 and 224.46-530 and to establish air emissions standards for tanks, surface impoundments, and containers.]

Section 1. Definitions. The subject matter shall be governed by 40 C.F.R. 265.1081, effective July 1, 2005.

Section 2. Applicability. (1) The subject matter shall be governed by 40 C.F.R. 265.1080(a) through (d), effective July 1, 2005.

(2) [The citations to 3004(u), 3004(v) and 3008(h) of RCRA and CERCLA authorities in the federal regulation referenced in subsection 1 of this section shall be replaced with KRS 224.01-400 or 224.46-530.

(3) [The citation to Section 3005 of RCRA in the federal regulation referenced in subsection (1) (1) of this section shall be replaced with KRS 224.46-520.

Section 3. Schedule for Implementation of Air Emission Standards. The subject matter shall be governed by 40 C.F.R. 265.1082, effective July 1, 2005.

Section 4. Standards: General. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 265.1083, effective July 1, 2005 [with the following modifications, exceptions, and additions set forth in this section].

(2) The following provisions shall apply in lieu of 40 C.F.R. 265.1083(c)(4)(ii) [requirements contained within 40 C.F.R. 265.1083(c)(4)(ii) shall be replaced with the following]: The organic hazardous constituents in the waste have been treated by the treatment technology established by the cabinet for the waste in 401 KAR 37:040, Section 3, or have been removed or destroyed by an equivalent method of treatment approved by the federal EPA pursuant to 40 C.F.R. 268.42(b).

Section 5. Waste Determination Procedures. The subject mat-

ter shall be governed by 40 C.F.R. 265.1084, effective July 1, 2005.

Section 6. Standards for Tanks. The subject matter shall be governed by 40 C.F.R. 265.1085, effective July 1, 2005.

Section 7. Standards for Surface Impoundments. The subject matter shall be governed by 40 C.F.R. 265.1086, effective July 1, 2005.

Section 8. Standards for Containers. The subject matter shall be governed by 40 C.F.R. 265.1087, effective July 1, 2005.

Section 9. Standards for Closed-vent Systems and Control Devices. The subject matter shall be governed by 40 C.F.R. 265.1088, effective July 1, 2005.

Section 10. Inspection and Monitoring Requirements. The subject matter shall be governed by 40 C.F.R. 265.1089, effective July 1, 2005.

Section 11. Recordkeeping Requirements. The subject matter shall be governed by 40 C.F.R. 265.1090, effective July 1, 2005.

Section 12. Effective Dates. (1) Dates Included in the federal regulations referenced in this administrative regulation that occurred before the effective date of this administrative regulation shall not be construed as creating a retroactive right or obligation under the Kentucky hazardous waste administrative regulations if that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced.

(2) If a right or obligation existed under federal regulations based on a date in federal regulations, and there is a period from the date cited in the text until the date the requirements initially became effective in this administrative regulation, this administrative regulation shall not contravene or countermand the legal application of the federal regulation for that period.

[Applicability. (1) The requirements of this administrative regulation apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either 401 KAR 35.190, 35.190 or 35.200 except as Section 1 of 401 KAR 35.010 and subsection (2) of this section provide otherwise.

(2) The requirements of this administrative regulation do not apply to the following hazardous waste management units at the facility:

(a) A hazardous waste management unit that holds hazardous waste placed in the unit before the effective date of this administrative regulation, and in which no hazardous waste is added to the unit on or after this date.

(b) A container that has a design capacity less than or equal to 0.1 m³ (26.4 gallons).

(c) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(d) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(e) A hazardous waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required under the RCRA corrective action authorities of KRS 224.01-400 or KRS 224.46-530.

(f) A hazardous waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act.

(3) For the owner and operator of a facility subject to this administrative regulation who has received a final permit under KRS 224.46-520 prior to the effective date of this administrative regulation, the following requirements apply:

(a) The requirements of 401 KAR 34.281 shall be incorporated into the permit when the permit is reissued in accordance with the requirements of Section 12 of 401 KAR 38.050 or reviewed in accordance with the requirements of Section 5(4) of 401 KAR 38.040.

(b) Until the date when the permit is reissued in accordance with the requirements of Section 12 of 401 KAR 38.050 or reviewed in accordance with the requirements of Section 5(4) of 401 KAR 38.040, the owner or operator is subject to the requirements of this administrative regulation.

(4) The requirements of this administrative regulation, except for the recordkeeping requirements specified in Section 10(9) of this administrative regulation, shall not apply to a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations when the owner or operator of the unit meets all of the following conditions:

(a) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one (1) or more of these organic peroxides, could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purpose of meeting the conditions of this paragraph, "organic peroxide" means an organic compound that contains the bivalent O-O structure and which may be considered to be a structural derivative of hydrogen peroxide where one (1) or both of the hydrogen atoms has been replaced by an organic radical.

(b) The owner or operator prepares documentation, in accordance with the requirements of Section 10(9) of this administrative regulation, explaining why an undue safety hazard would be created if air emission controls specified in Sections 5, 7, and 8 of this administrative regulation are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of paragraph (a) of this subsection.

(c) The owner or operator notifies the cabinet in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of paragraph (a) of this subsection are managed at the facility in tanks or containers meeting the conditions of paragraph (b) of this subsection. The notification shall state the name and address of the facility, and be signed and dated by an authorized representative of the facility owner or operator.

Section 2. Schedule for Implementation of Air Emission Standards. (1) Owners or operators of facilities existing six (6) months after the effective date of this administrative regulation, and subject to 401 KAR 35.190, 35.190, and 35.200 shall meet the following requirements:

(a) Install and begin operation of all control equipment required by this administrative regulation within six (6) months after the effective date of this administrative regulation, except as provided for in paragraph (b) of this subsection.

(b) When control equipment required by this administrative regulation cannot be installed and in operation within six (6) months after the effective date of this administrative regulation, the owner or operator shall:

1. Install and begin operation of the control equipment as soon as possible but no later than December 8, 1997.

2. Prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this administrative regulation.

3. For facilities subject to the recordkeeping requirements of Section 4 of 401 KAR 35.050, the owner or operator shall enter the implementation schedule specified in subparagraph 2. of this paragraph in the operating record no later than six (6) months after the effective date of this administrative regulation.

4. For facilities not subject to Section 4 of 401 KAR 35.050, the owner or operator shall enter the implementation schedule speci-

filed in subparagraph 2 of this paragraph in a permanent, readily available file located at the facility no later than six (6) months after the effective date of this administrative regulation.

(2) Owners or operators of facilities in existence on the effective date of statutory or regulatory amendments that render the facility subject to 401 KAR 35:180, 35:190, or 35:200 shall meet the following requirements:

(a) Install and begin operation of all control equipment required by this administrative regulation by the effective date of the amendment except as provided for in paragraph (b) of this subsection.

(b) When control equipment required by this administrative regulation cannot be installed and begin operation by the effective date of the amendment, the owner or operator shall:

1. Install and operate the control equipment as soon as possible but no later than thirty (30) months after the effective date of the amendment.

2. For facilities subject to the recordkeeping requirements of Section 4 of 401 KAR 35:050, enter and maintain the implementation schedule specified in subsection (1)(b)2 of this section in the operating record no later than the effective date of the amendment, or

3. For facilities not subject to Section 4 of 401 KAR 35:050, the owner or operator shall enter and maintain the implementation schedule specified in subsection (1)(b)2 of this section in a permanent, readily available file located at the facility site no later than the effective date of the amendment.

(3) The cabinet may elect to extend the implementation date for control equipment at a facility, on a case-by-case basis, to a date later than December 8, 1997, when special circumstances that are beyond the facility owner's or operator's control delay installation or operation of control equipment and the owner or operator has made all reasonable and prudent attempts to comply with the requirements of this administrative regulation.

Section 3. Standards - General. (1) This section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this administrative regulation.

(2) The owner or operator shall control air emissions from each hazardous waste management unit in accordance with standards specified in Sections 5 through 8 of this administrative regulation, as applicable to the hazardous waste management unit, except as provided for in subsection (3) of this section.

(3) A hazardous waste management unit is exempted from standards specified in Sections 5 through 8 of this administrative regulation provided that all hazardous waste placed in the hazardous waste management unit is determined by the owner or operator to meet either of the following conditions:

(a) The average volatile organic (VO) concentration of the hazardous waste at the point of waste origination is less than 100 parts per million by weight (ppmw). The average VO concentration shall be determined by the procedures specified in Section 4(1) of this administrative regulation.

(b) The organic content of the hazardous waste has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

1. A process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (C_e) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in Section 4(2) of this administrative regulation.

2. A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than ninety-five (95) percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than fifty (50) ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Section 4(2) of this administrative regulation.

3. A process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass

removal rate (MR) for the process is greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process shall be determined using the procedures specified in Section 4(2) of this administrative regulation.

4. A biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:

a. The organic reduction efficiency (R) for the process is equal to or greater than ninety-five (95) percent, and the organic biodegradation efficiency (R_{bio}) for the process is equal to or greater than ninety-five (95) percent. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined in accordance with the procedures specified in Section 4(2) of this administrative regulation.

b. The total actual organic mass biodegradation rate (MR_{bio}) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in Section 4(2) of this administrative regulation.

5. A process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

a. All of the materials entering the process are hazardous wastes.

b. From the point of waste origination through the point where the hazardous waste enters the process, the hazardous waste is continuously managed in hazardous waste management units that use air emission controls in accordance with the standards specified in Sections 5 through 8 of this administrative regulation, as applicable to the hazardous waste management unit.

c. The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual hazardous waste streams entering the process or 100 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination shall be determined using the procedure specified in Section 4(1) of this administrative regulation. The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedure specified in Section 4(2) of this administrative regulation.

6. A hazardous waste incinerator for which the owner or operator has either:

a. Been issued a final permit under 401 KAR Chapter 38, and designs and operates the unit in accordance with the requirements of 401 KAR 34:240, or

b. Has certified compliance with the interim status requirements of 401 KAR 35:240.

7. A boiler or industrial furnace for which the owner or operator has either:

a. Been issued a final permit under 401 KAR Chapter 38, and designs and operates the unit in accordance with the requirements of 401 KAR 36:020 and 36:025; or

b. Has certified compliance with the interim status requirements of 401 KAR 36:020.

(4) When a process is used for the purpose of treating a hazardous waste to meet one (1) of the sets of conditions specified in subparagraphs (3)(b)1 through (3)(b)5 of this section, each material removed from or exiting the process that is not a hazardous waste but has an average VO concentration equal to or greater than 100 ppmw shall be managed in a hazardous waste management unit in accordance with the requirements of subsection (2) of this section.

(5) The cabinet may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of this section as follows:

(a) The waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of Section 4(1) of this administrative regulation. The waste determination for a hazardous waste at the point of

waste treatment shall be performed in accordance with the applicable requirements of Section 4(2) of this administrative regulation.

(b) In a case when the owner or operator is requested to perform the waste determination, the cabinet may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

(c) In a case when the results of the waste determination performed or requested by the cabinet do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (5)(a) of this section shall be used to establish compliance with the requirements of this administrative regulation.

(d) In a case when the owner or operator has used an averaging period greater than one (1) hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the cabinet may elect to establish compliance with this administrative regulation by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a 1 hour period as follows:

1. The average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of Section 4(1) of this administrative regulation.

2. Results of the waste determination performed or requested by the cabinet showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 100 ppmw shall constitute noncompliance with this administrative regulation except in a case as provided for in subparagraph 3 of this paragraph.

3. For the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one (1) hour to be less than 100 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one (1) hour period may be equal to or greater than 100 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (for example, test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Sections 4(1) and (10) of this administrative regulation shall be considered by the cabinet together with the results of the waste determination performed or requested by the cabinet in establishing compliance with this administrative regulation.

Section 4. Waste Determination Procedures. (1) Waste determination procedure for volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

(a) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a hazardous waste management unit exempted under the provisions of Section 3(3)(a) of this administrative regulation from using air emission controls in accordance with standards specified in Sections 5 through 8 of this administrative regulation, as applicable to the hazardous waste management unit.

(b) When the facility owner or operator is the generator of the hazardous waste, the owner or operator shall determine the average VO concentration of the hazardous waste using either direct measurement as specified in paragraph (c) of this subsection or knowledge of the waste as specified in paragraph (f) of this subsection for each hazardous waste generated as follows:

1. When the hazardous waste is generated as part of a continuous process, the owner or operator shall:

a. Perform an initial waste determination of the average VO concentration of the waste stream before the first time any portion of the material in the waste stream is placed in a hazardous waste management unit subject to this administrative regulation, and thereafter update the information used for the waste determination at least once every twelve (12) months following the date of the initial waste determination; and

b. Perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to

cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 3 of this administrative regulation.

2. When the hazardous waste is generated as part of a batch process that is performed repeatedly but not necessarily continuously, the owner or operator shall:

a. Perform an initial waste determination of the average VO concentration for one (1) or more representative waste batches generated by the process before the first time any portion of the material in the batches is placed in a hazardous waste management unit subject to this administrative regulation, and thereafter update the information used for the waste determination at least once every twelve (12) months following the date of the initial waste determination; and

b. Perform a new waste determination whenever changes to the process generating the waste batches are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 3 of this administrative regulation.

(c) When the facility owner and operator is not the generator of the hazardous waste, the owner or operator shall determine the average VO concentration of the hazardous waste using either direct measurement as specified in paragraph (e) of this subsection or knowledge of the waste as specified in paragraph (f) of this subsection for each hazardous waste entering the facility as follows:

1. When the hazardous waste enters the facility as a continuous flow of material through a pipeline or other means (for example, wastewater stream), the owner or operator shall:

a. Perform an initial waste determination of the waste stream before the first time any portion of the material in the waste stream is placed in a hazardous waste management unit subject to this administrative regulation, and thereafter update the information used for the waste determination at least once every twelve (12) months following the date of the initial waste determination; and

b. Perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 3 of this administrative regulation.

2. When the hazardous waste enters the facility in a container, the owner or operator shall perform a waste determination for the material held in each container.

(d) For the case when the average VO concentration of the hazardous waste is determined by the owner or operator to be less than 100 ppmw, but because of normal operating variations in the source or process generating the hazardous waste the VO concentration of the hazardous waste may be equal to or greater than 100 ppmw at any given time during the averaging period, the owner or operator shall prepare and enter in the facility operating record information that specifies the following:

1. The maximum and minimum VO concentration values for the hazardous waste that occur during that averaging period used for the waste determination;

2. The operating conditions or circumstances under which the VO concentration of the hazardous waste shall be equal to or greater than 100 ppmw, and;

3. The information and calculations used by the owner or operator to determine the average VO concentration of the hazardous waste.

(e) Procedure for using direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination:

1. The owner or operator shall identify and record the point of waste origination for the hazardous waste. All waste samples used to determine the average VO concentration of the hazardous waste shall be collected at this point.

2. The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period shall not exceed one (1) year. An initial waste determination shall be per-

formed for each averaging period.

3. The owner or operator shall identify each discrete quantity of the material composing the hazardous waste represented by the averaging period designated in subparagraph 2 of this paragraph. An example of a discrete quantity of material composing a hazardous waste generated as part of a continuous process is the quantity of material generated during a process operating mode defined by a specific set of operating conditions that are normal for the process. An example of a discrete quantity of material composing a hazardous waste generated as part of a batch process that is performed repeatedly but not necessarily continuously is the total quantity of material composing a single batch generated by the process. An example of a discrete quantity of material composing a hazardous waste delivered to a facility in a container is the total quantity of material held in the container.

4. The following procedure shall be used measure the VO concentration for each discrete quantity of material identified in subparagraph 3 of this paragraph:

a. A sufficient number of samples, but no less than four (4) samples, shall be collected to represent the organic composition for the entire discrete quantity of hazardous waste being tested. All of the samples shall be collected within a one (1) hour period. Sufficient information shall be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.

b. Each sample shall be collected in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010).

c. Each collected sample shall be prepared and analyzed in accordance with the requirements of Method 25D in 40 C.F.R. Part 60, Appendix A.

d. The measured VO concentration for the discrete quantity of hazardous waste shall be determined by using the results for all samples analyzed in accordance with subparagraph 4c of this paragraph and the following equation:

$$C_{\text{ave}} = \frac{1}{n} \times \sum_{i=1}^n C_i$$

where:

C_{ave} = Measured VO concentration of the discrete quantity of hazardous waste, ppmw.

i = Individual sample "i" of the hazardous waste collected in accordance with the requirements of SW-846.

n = Total number of samples of hazardous waste collected (at least four (4)) within a one (1) hour period.

C_i = VO concentration measured by Method 25D for sample "i", ppmw.

5. The average VO concentration of the hazardous waste shall be determined using the following procedure:

a. When the facility owner or operator is the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste shall be performed in accordance with the requirements of subparagraph 4 of this paragraph to represent the complete range of hazardous waste organic compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for each process operating mode identified for the source or process generating the hazardous waste.

b. When the facility owner or operator is not the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste shall be performed in accordance with the requirements of subparagraph 4 of this paragraph to represent the complete range of hazardous waste organic compositions and quantities that occur in the hazardous waste as received at the facility during the entire averaging period.

c. The average VO concentration of the hazardous waste at the point of waste origination shall be calculated by using the results for all VO measurements performed in accordance with subparagraph 4 of this paragraph and the following equation:

$$C_{\text{ave}} = \frac{1}{Q_T} \times \sum_{j=1}^m (Q_j \times C_j)$$

where:

C_{ave} = Average VO concentration of the hazardous waste at the point of waste origination, ppmw.

j = Individual discrete quantity "j" of the hazardous waste for which a VO concentration measurement is determined in accordance with the requirements of subparagraph 4 of this paragraph.

m = Total number of VO concentration measurements determined in accordance with the requirements of subparagraph 4 of this paragraph for the averaging period.

Q_j = Mass of the discrete quantity of the hazardous waste represented by C_j , kg.

Q_T = Total mass of the hazardous waste for the averaging period, kg.

C_j = Measured VO concentration of discrete quantity "j" for the hazardous waste determined in accordance with the requirements of subparagraph 4 of this paragraph, ppmw.

(f) Procedure for using knowledge of the waste to determine the average VO concentration of a hazardous waste at the point of waste origination.

1. The owner or operator shall identify and record the point of waste origination for the hazardous waste. All information used to determine the average VO concentration of the hazardous waste shall be based on the hazardous waste composition at this point.

2. The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period shall not exceed one (1) year. An initial waste determination shall be performed for each averaging period.

3. The owner or operator shall prepare and record sufficient information that documents the average VO concentration for the hazardous waste. Information may be used that is prepared by either the facility owner or operator or by the generator of the hazardous waste. Examples of information that may be used as the basis for knowledge of the waste include: organic material balances for the source or process generating the waste; VO concentration measurements for the same type of waste performed in accordance with the procedure specified in subsection (1)(e)4 of this section; previous individual organic constituent test data for the waste that are still applicable to the current waste management practices; documentation that the waste is generated by a process for which no organics-containing materials are used; previous test data for other locations managing the same type of waste; or other knowledge based on manifests, chipping papers, or waste certification notices.

4. If test data other than VO concentration measurements performed in accordance with the procedure specified in subsection (1)(e)4 of this section are used as the basis for knowledge of the waste, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use individual organic constituent concentration test data that are validated in accordance with Method 301 in Appendix A of 40 C.F.R. Part 63 as the basis for knowledge of the waste.

(2) Waste determination procedures for treated hazardous waste.

(a) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a hazardous waste management unit exempted under the provisions of Section 3(3)(b) of this administrative regulation from using air emission controls in accordance with standards specified in Sections 5 through 8 of this administrative regulation, as applicable to the hazardous waste management unit.

(b) The owner or operator shall perform a waste determination for each discrete quantity of treated hazardous waste as follows:

1. When the hazardous waste is treated by a continuous process, the owner or operator shall:

a. Perform an initial waste determination for the treated waste stream before the first time any portion of the material in the waste stream is placed in a hazardous waste management unit subject to

this administrative regulation, and thereafter update the information used for the waste determination at least once every twelve (12) months following the date of the initial waste determination; and

b. Perform a new waste determination whenever changes to the hazardous waste streams fed to the process are reasonably likely to cause the characteristics of the hazardous waste at the point of waste treatment to change to levels that fail to achieve the applicable conditions specified in Section 3(3)(b) of this administrative regulation.

2. When the hazardous waste is treated by a batch process that is performed repeatedly but not necessarily continuously, the owner or operator shall:

a. Perform an initial waste determination for the treated hazardous waste in one (1) or more representative batches treated by the process, and thereafter update the information used for the waste determination at least once every twelve (12) months following the date of the initial waste determination; and

b. Perform a new waste determination whenever changes to the hazardous waste treated by the process are reasonably likely to cause the characteristics of the hazardous waste at the point of waste treatment to change to levels that fail to achieve the applicable conditions specified in Section 3(3)(b) of this administrative regulation.

(c) The owner or operator shall designate and record the specific provision in Section 3(3)(b) of this administrative regulation for which the waste determination is being performed. The waste determination for the treated hazardous waste shall be performed using the applicable procedures specified in paragraphs (d) through (j) of this subsection.

(d) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

1. The owner or operator shall identify and record the point of waste treatment for the hazardous waste. All waste samples used to determine the average VO concentration of the hazardous waste shall be collected at this point.

2. The owner or operator shall designate and record the averaging period to be used for determining the average VO concentration for the hazardous waste. The averaging period shall not exceed one (1) year. An initial waste determination shall be performed for each averaging period.

3. The owner or operator shall identify each discrete quantity of the material composing the hazardous waste represented by the averaging period designated in subparagraph 2 of this paragraph.

4. The following procedure shall be used to measure the VO concentration for each discrete quantity of material identified in paragraph 3 of this subsection:

a. A sufficient number of samples, but no less than four (4) samples, shall be collected to represent the organic composition for the entire discrete quantity of hazardous waste being tested. All of the samples shall be collected within a one (1) hour period. Sufficient information shall be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.

b. Each sample shall be collected in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010).

c. Each collected sample shall be prepared and analyzed in accordance with the requirements of Method 25D in 40 C.F.R. Part 60, Appendix A.

d. The measured VO concentration for the discrete quantity of hazardous waste shall be determined by using the results for all samples analyzed in accordance with subparagraph 4c of this paragraph and the following equation:

$$C = \frac{1}{n} \times \sum_{i=1}^n C_i$$

where:

C = Measured VO concentration of the discrete quantity of hazardous waste, ppmw.

i = Individual sample "i" of the hazardous waste collected in

accordance with the requirements of SW-846.

n = Total number of samples of hazardous waste collected (at least four (4)) within a one (1) hour period.

C_i = VO concentration measured by Method 25D for sample "i", ppmw.

5. The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the following procedure:

a. When the facility owner or operator is the generator of the hazardous waste, a sufficient number of VO concentration measurements for the hazardous waste shall be performed in accordance with the requirements of subparagraph 4 of this paragraph to represent the complete range of hazardous waste organic compositions and quantities treated by the process during the entire averaging period.

b. The average VO concentration of the hazardous waste at the point of waste treatment shall be calculated by using the results for all VO measurements performed in accordance with subparagraph 4 of this paragraph and the following equation:

$$C_{ave} = \frac{1}{Q_T} \times \sum_{j=1}^m (Q_j \times C_j)$$

where:

C_{ave} = Average VO concentration of the hazardous waste at the point of waste treatment, ppmw.

j = Individual discrete quantity "j" of the hazardous waste for which a VO concentration measurement is determined in accordance with the requirements of subparagraph 4 of this paragraph.

m = Total number of VO concentration measurements determined in accordance with the requirements of subparagraph 4 of this paragraph for the averaging period.

Q_j = Mass of the discrete quantity of the hazardous waste represented by C_j , kg.

Q_T = Total mass of the hazardous waste for the averaging period, kg.

C_j = Measured VO concentration of discrete quantity "j" for the hazardous waste determined in accordance with the requirements of subparagraph 4 of this paragraph, ppmw.

(e) Procedure to determine the exit concentration limit (C_T) for a treated hazardous waste.

1. The point of waste origination for each hazardous waste treated by the process at the same time shall be identified.

2. If a single hazardous waste stream is identified in subparagraph 1 of this paragraph, then the exit concentration limit (C_T) shall be 100 ppmw.

3. If more than one (1) hazardous waste stream is identified in subparagraph 1 of this paragraph, then the VO concentration of each hazardous waste stream at the point of waste origination shall be determined in accordance with the requirements of subsection (1) of this section. The exit concentration limit (C_T) shall be calculated by using the results determined for each individual hazardous waste stream and the following equation:

$$C_T = \frac{\sum_{x=1}^m (Q_x \times \bar{C}_x) + \sum_{y=1}^n (Q_y \times 100 \text{ ppmw})}{\sum_{x=1}^m Q_x + \sum_{y=1}^n Q_y}$$

where:

C_T = Exit concentration limit for treated hazardous waste, ppmw.

x = Individual hazardous waste stream "x" that has a VO concentration less than 100 ppmw at the point of waste origination as determined in accordance with the requirements of subsection (1) of this section.

y = Individual hazardous waste stream "y" that has a VO concentration equal to or greater than 100 ppmw at the point of waste origination as determined in accordance with the requirements of subsection (1) of this section.

m = Total number of "x" hazardous waste streams treated by process.

n = Total number of "y" hazardous waste streams treated by

process.

Q_x = Annual mass quantity of hazardous waste stream "x", kg/yr.

Q_y = Annual mass quantity of hazardous waste stream "y", kg/yr.

\bar{C}_x = Average VO concentration of hazardous waste stream "x" at the point of waste origination as determined in accordance with the requirements of subsection (1) of this section, ppmw.

(f) Procedure to determine the organic reduction efficiency (R) for a treated hazardous waste.

1. The organic reduction efficiency for a treatment process shall be determined based on results for a minimum of three (3) consecutive runs. The sampling time for each run shall be 1 hour.

2. The point of each hazardous waste stream entering the process and each hazardous waste stream exiting the process that is to be included in the calculation of the organic reduction efficiency for the process shall be identified.

3. For each run, the following information shall be determined for each hazardous waste stream identified in subparagraph 2 of this paragraph using the following procedures:

a. The mass quantity of each hazardous waste stream entering the process (Q_b) and the mass quantity of each hazardous waste stream exiting the process (Q_a) shall be determined.

b. The VO concentration of each hazardous waste stream entering the process (C_b) during the run shall be measured in accordance with the requirements of subsection (1)(e)4a through (1)(e)4d of this section. The VO concentration of each hazardous waste stream exiting the process (C_a) during the run shall be determined in accordance with the requirements of paragraph (d)4 of this subsection. Samples shall be collected as follows:

(i) For a continuous process, the samples of the hazardous waste entering and samples of the hazardous waste exiting the process shall be collected concurrently.

(ii) For a batch process, the samples of the hazardous waste entering the process shall be collected at the time that the hazardous waste is placed in the process. The samples of the hazardous waste exiting the process shall be collected as soon as practicable after the time when the process stops operation or the final treatment cycle ends.

4. The waste volatile organic mass flow entering the process (E_b) and the waste volatile organic mass flow exiting the process (E_a) shall be calculated by using the results determined in accordance with subparagraph 3 of this paragraph and the following equations:

$$E_b = \frac{1}{10^6} \sum_{j=1}^m (Q_{bj} \times C_{bj})$$

$$E_a = \frac{1}{10^6} \sum_{j=1}^m (Q_{aj} \times C_{aj})$$

where:

E_a = Waste volatile organic mass flow exiting process, kg/hr.

E_b = Waste volatile organic mass flow entering process, kg/hr.

m = Total number of runs (at least three (3))

j = Individual run "j"

Q_{bj} = Mass quantity of hazardous waste entering process during run "j", kg/hr.

Q_{aj} = Average mass quantity of waste exiting process during run "j", kg/hr.

C_{aj} = Measured VO concentration of hazardous waste exiting process during run "j" as determined in accordance with the requirements of paragraph (d)4 of this subsection, ppmw.

C_{bj} = Measured VO concentration of hazardous waste entering process during run "j" as determined in accordance with the requirements of subsections (1)(e)4a through (1)(e)4d of this section, ppmw.

5. The organic reduction efficiency of the process shall be calculated by using the results determined in accordance with subparagraph 4 of this paragraph and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100\%$$

where:

R = Organic reduction efficiency, percent.

E_b = Waste volatile organic mass flow entering process as determined in accordance with the requirements of subparagraph 4 of this paragraph, kg/hr.

E_a = Waste volatile organic mass flow exiting process as determined in accordance with the requirements of subparagraph 4 of this paragraph, kg/hr.

(g) Procedure to determine the organic biodegradation efficiency (R_{bio}) for a treated hazardous waste.

1. The fraction of organics biodegraded (F_{bio}) shall be determined using the procedure specified in 40 C.F.R. Part 63, Appendix C.

2. The organic biodegradation efficiency shall be calculated by using the following equation:

$$R_{bio} = F_{bio} \times 100\%$$

where

R_{bio} = Organic biodegradation efficiency, percent.

F_{bio} = Fraction of organic biodegraded as determined in accordance with the requirements of subparagraph 1 of this paragraph.

(h) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste.

1. The point of waste origination for each hazardous waste treated by the process at the same time shall be identified.

2. For each hazardous waste stream identified in subparagraph 1 of this paragraph, the VO concentration of the hazardous waste stream at the point of waste origination shall be determined in accordance with the requirements of subsection (1) of this section.

3. For each individual hazardous waste stream that has a volatile organic concentration equal to or greater than 100 ppmw at the point of waste origination as determined in accordance with the requirements of subparagraph 2 of this paragraph, the average volumetric flow rate of hazardous waste at the point of waste origination and the density of the hazardous waste stream shall be determined.

4. The required organic mass removal rate for the hazardous waste shall be calculated by using the results determined for each individual hazardous waste stream in accordance with the requirements of subparagraphs 2 and 3 of this paragraph and the following equation:

$$RMR = \sum_{y=1}^n \left[V_y \times k_y \times \frac{\bar{C}_y - 100 \text{ ppmw}}{10^6} \right]$$

where:

RMR = Required organic mass removal rate, kg/hr.

y = Individual hazardous waste stream "y" that has a volatile organic concentration equal to or greater than 100 ppmw at the point of waste origination as determined in accordance with the requirements of subsection (1) of this section.

n = Total number of "y" hazardous waste streams treated by process.

V_y = Average volumetric flow rate of hazardous waste stream "y" at the point of waste origination, m³/hr.

k_y = Density of hazardous waste stream "y", kg/m³

\bar{C}_y = Average VO concentration of hazardous waste stream "y" at the point of waste origination as determined in accordance with the requirements of subsection (1) of this section, ppmw.

(i) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste.

1. The actual organic mass removal rate shall be determined based on results for a minimum of three (3) consecutive runs. The sampling time for each run shall be one (1) hour.

2. The waste volatile organic mass flow entering the process (E_b) and the waste volatile organic mass flow exiting the process (E_a) shall be determined in accordance with the requirements of paragraph (f)4 of this subsection.

3. The actual organic mass removal rate shall be calculated by using the results determined in accordance with the requirements

of subparagraph 2 of this paragraph and the following equation:

$$MR = E_D - E_A$$

where:

MR = Actual organic mass removal rate, kg/hr.

E_D = Waste volatile organic mass flow entering process as determined in accordance with the requirements of paragraph (f)4 of this subsection, kg/hr.

E_A = Waste volatile organic mass flow exiting process as determined in accordance with the requirements of paragraph (f)4 of this subsection, kg/hr.

(f) Procedure to determine the actual organic mass biodegradation rate (MR_{bio}) for a treated hazardous waste:

1. The actual organic mass biodegradation rate shall be determined based on results for a minimum of three (3) consecutive runs. The sampling time for each run shall be one (1) hour.

2. The waste organic mass flow entering the process (E_D) shall be determined in accordance with the requirements of paragraph (f)4 of this subsection.

3. The fraction of organic biodegraded (F_{bio}) shall be determined using the procedure specified in 40 C.F.R. Part 63, Appendix C.

4. The actual organic mass biodegradation rate shall be calculated by using the mass flow rates and fraction of organic biodegraded determined in accordance with the requirements of subparagraphs 2 and 3 of this paragraph and the following equation:

$$MR_{bio} = E_D \times F_{bio}$$

where:

MR_{bio} = Actual organic mass biodegradation rate, kg/hr.

E_D = Waste organic mass flow entering process as determined in accordance with the requirements of paragraph (f)4 of this subsection, kg/hr.

F_{bio} = Fraction of organic biodegraded as determined in accordance with the requirements of subparagraph 3 of this paragraph.

(3) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank:

(a) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using air emission controls in accordance with standards specified in Section 5(3) of this administrative regulation.

(b) An owner or operator shall use either direct measurement as specified in paragraph (c) of this subsection or knowledge of the waste as specified by paragraph (d) of this subsection to determine the maximum organic vapor pressure that is representative of the hazardous waste composition stored or treated in the tank.

(c) To determine the maximum organic vapor pressure of the hazardous waste by direct measurement, the following procedure shall be used:

1. Representative samples of the waste contained in the tank shall be collected. Sampling shall be conducted in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010).

2. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure:

a. Method 25E in 40 C.F.R. Part 60, Appendix A;

b. Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1980, "Evaporative Losses from External Floating Roof Tanks," (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010);

c. Methods obtained from standard reference texts;

d. ASTM Method 2879-92 (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010); or

e. Any other method approved by the cabinet.

(d) To determine the maximum organic vapor pressure of the hazardous waste by knowledge, sufficient information shall be prepared and recorded that documents the maximum organic vapor pressure of the hazardous waste in the tank. Examples of information that may be used include: documentation that the waste is generated by a process for which no organics-containing materials are used; or that the waste is generated by a process for which at other locations it previously has been determined by direct

measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate design capacity category specified for the tank.

Section 5. Standards, Tanks. (1) This section applies to owners and operators of tanks subject to this administrative regulation into which any hazardous waste is placed except for the following tanks:

(a) A tank in which all hazardous waste entering the tank meets the conditions specified in Section 3(3) of this administrative regulation; or

(b) A tank used for biological treatment of hazardous waste in accordance with the requirements of Section 3(3)(b)4 of this administrative regulation.

(2) The owner or operator shall place the hazardous waste into one (1) of the following tanks:

(a) A tank equipped with a cover (for example, a fixed roof) that is vented through a closed vent system to a control device in accordance with the requirements specified in subsection (4) of this section;

(b) A tank equipped with a fixed roof and internal floating roof in accordance with the requirements of Section 11 of this administrative regulation;

(c) A tank equipped with an external floating roof in accordance with the requirements of Section 11 of this administrative regulation; or

(d) A pressure tank that is designed to operate as a closed system such that the tank operates with no detectable organic emissions at all times that hazardous waste is in the tank except as provided for in subsection (7) of this section.

(3) As an alternative to complying with subsection (2) of this section, an owner or operator may place hazardous waste in a tank equipped with a cover (for example, a fixed roof) meeting the requirements specified in subsection (4)(a) of this section when the hazardous waste is determined to meet all of the following conditions:

(a) The hazardous waste is neither mixed, stirred, agitated, nor circulated within the tank by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;

(b) The hazardous waste in the tank is not heated by the owner or operator except during conditions requiring that the waste be heated to prevent the waste from freezing or to maintain adequate waste flow conditions for continuing normal process operations;

(c) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction; and

(d) The maximum organic vapor pressure of the hazardous waste in the tank as determined using the procedure specified in Section 4(3) of this administrative regulation is less than the following applicable value:

1. If the tank design capacity is equal to or greater than 151 m³ (39,893 gallons), then the maximum organic vapor pressure shall be less than 5.2 kPa (gauge);

2. If the tank design capacity is equal to or greater than 75 m³ (19,814 gallons) but less than 151 m³ (39,893 gallons), then the maximum organic vapor pressure shall be less than 27.6 kPa (gauge); or

3. If the tank design capacity is less than 75 m³ (19,814 gallons), then the maximum organic vapor pressure shall be less than 76.6 kPa (gauge).

(4) To comply with subsection (2)(a) of this section, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the tank through a closed vent system connected to a control device.

(a) The cover shall be designed and operated to meet the following requirements:

1. The cover and all cover openings (for example, access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.

2. Each cover opening shall be secured in a closed, sealed position (for example, covered by a gasketed lid or cap) at all times that hazardous waste is in the tank except as provided for in subsection (6) of this section.

(b) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section 8 of this administrative regulation.

(5) The owner and operator shall install, operate, and maintain enclosed pipes or other closed systems for the transfer of hazardous waste as described in paragraph (a) or (b) of this subsection. The cabinet considers a drain system that meets the requirements of 40 C.F.R. 61.346(a)(1) or 40 C.F.R. 61.346(b)(1) through (b)(3) to be a closed system.

(a) Transfer all hazardous waste to the tank from another tank, surface impoundment, or container subject to this administrative regulation except for those hazardous wastes that meet the conditions specified in Section 3(3) of this administrative regulation; and

(b) Transfer all hazardous waste from the tank to another tank, surface impoundment, or container subject to this administrative regulation except for those hazardous wastes that meet the conditions specified in Section 3(3) of this administrative regulation.

(6) Each cover opening shall be secured in a closed, sealed position (for example, covered by a gasketed lid) at all times that hazardous waste is in the tank except when it is necessary to use the cover opening to:

(a) Add, remove, inspect, or sample the material in the tank;

(b) Inspect, maintain, repair, or replace equipment located inside the tank; or

(c) Vent gases or vapors from the tank to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 8 of this administrative regulation.

(7) One (1) or more safety devices that vent directly to the atmosphere may be used on the tank, cover, closed-vent system, or control device provided each safety device meets all of the following conditions:

(a) The safety device is not used for planned or routine venting of organic vapors from the tank or the closed-vent system connected to a control device; and

(b) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the tank, cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.

Section 6. Standards. Surface Impoundments (1) This section applies to owners and operators of surface impoundments subject to this administrative regulation into which any hazardous waste is placed except for the following surface impoundments:

(a) A surface impoundment in which all hazardous waste entering the surface impoundment meets the conditions specified in Section 3(3) of this administrative regulation; or

(b) A surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Section 3(3)(b)4 of this administrative regulation.

(2) The owner or operator shall place the hazardous waste into a surface impoundment equipped with a cover (for example, an air-supported structure or a rigid cover) that is vented through a closed-vent system to a control device meeting the requirements specified in subsection (4) of this section.

(3) As an alternative to complying with subsection (2) of this section, an owner or operator may place hazardous waste in a surface impoundment equipped with a floating membrane cover meeting the requirements specified in subsection (5) of this section when the hazardous waste is determined to meet all of the following conditions:

(a) The hazardous waste is neither mixed, stirred, agitated, nor circulated within the surface impoundment by the owner or operator using a process that results in splashing, frothing, or visible turbulent flow on the waste surface during normal process operations;

(b) The hazardous waste in the surface impoundment is not heated by the owner or operator; and

(c) The hazardous waste in the surface impoundment is not treated by the owner or operator using a waste stabilization process or a process that produces an exothermic reaction.

(4) To comply with subsection (2) of this section, the owner or operator shall design, install, operate, and maintain a cover that vents the organic vapors emitted from hazardous waste in the surface impoundment through a closed-vent system connected to a control device.

(a) The cover shall be designed, installed, operated, and maintained to meet the following requirements:

1. The cover and all cover openings (for example, access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.

2. Each cover opening shall be secured in the closed, sealed position (for example, covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except as provided for in subsection (7) of this section.

3. The closed-vent system and control device shall be designed and operated in accordance with Section 8 of this administrative regulation.

(5) To comply with subsection (3) of this section, the owner or operator shall design, install, operate, and maintain a floating membrane cover that meets all of the following requirements:

(a) The floating membrane cover shall be designed, installed, and operated such that at all times when hazardous waste is in the surface impoundment, the entire surface area of the hazardous waste is enclosed by the cover, and any air spaces underneath the cover are not vented to the atmosphere except during conditions specified in subsection (8) of this section.

(b) The floating membrane cover and all cover openings (for example, access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable organic emissions when all cover openings are secured in a closed, sealed position.

(c) Each cover opening shall be secured in a closed, sealed position (for example, covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except as provided for in subsections (7)(a) through (7)(c) of this section; and

(d) The synthetic membrane material used for the floating membrane cover shall be either:

1. High-density polyethylene with a thickness no less than 2.5 mm; or

2. A material or a composite of different materials determined to have the following properties:

a. Organic permeability properties that are equivalent to those of the material specified in subparagraph 1 of this paragraph; and

b. Chemical and physical properties that maintain the material integrity for as long as the cover is in use. Factors that shall be considered in selecting the material include: the effects of contact with the waste managed in the impoundment, weather exposure, and cover installation and operation practices.

(6) The owner or operator shall install, operate, and maintain enclosed pipes or other closed systems for the transfer of hazardous waste as described in paragraph (a) or (b) of this subsection. The cabinet considers a drain system that meets the requirements of 40 C.F.R. 61.346(a)(1) or 40 C.F.R. 61.346(b)(1) through (b)(3) to be a closed system. The owner or operator shall:

(a) Transfer all hazardous waste to the surface impoundment from another tank, surface impoundment, or container subject to this administrative regulation except for those hazardous wastes that meet the conditions specified in Section 3(3) of this administrative regulation; and

(b) Transfer all hazardous waste from the surface impoundment to another tank, surface impoundment, or container subject to this administrative regulation except for those hazardous wastes that meet the conditions specified in Section 3(3) of this administrative regulation.

(7) Each cover opening shall be secured in the closed, sealed position (for example, covered by a gasketed lid or cap) at all times that hazardous waste is in the surface impoundment except when it is necessary to use the cover opening to:

(a) Add, remove, inspect, or sample the material in the surface impoundment;

(b) Inspect, maintain, repair, or replace equipment located underneath the cover;

(c) Remove treatment residues from the surface impoundment in accordance with the requirements of Section 4 of 401-KAR

37.010, or

(d) Vent gases or vapors from the surface impoundment to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 8 of this administrative regulation.

(8) One (1) or more safety devices that vent directly to the atmosphere may be installed on the cover, closed-vent system, or control device provided each device meets all of the following conditions:

(a) The safety device is not used for planned or routine venting of organic vapors from the surface impoundment or the closed-vent system connected to a control device; and

(b) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the cover, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.

Section 7. Standards: Containers. (1) This section applies to the owners and operators of containers having design capacities greater than 0.1 m³ (26.4 gallons) subject to this administrative regulation into which any hazardous waste is placed except for a container in which all hazardous waste entering the container meets the conditions specified in Section 3(3) of this administrative regulation.

(2) An owner or operator shall manage hazardous waste in containers using the following procedures:

(a) The owner or operator shall place the hazardous waste into one (1) of the following containers except when a container is used for hazardous waste treatment as required by subsection (2)(b) of this section:

1. A container that is equipped with a cover that operates with no detectable organic emissions when all container openings (for example, lids, bungs, hatches, and sampling ports) are secured in a closed, sealed position. The owner or operator shall determine that a container operates with no detectable emissions by testing each opening on the container for leaks in accordance with Method 21 in 40 C.F.R. Part 60, Appendix A the first time any portion of the hazardous waste is placed into the container. If a leak is detected and cannot be repaired immediately, the hazardous waste shall be removed from the container and the container not used to meet the requirements of this paragraph until the leak is repaired and the container is retested.

2. A container having a design capacity less than or equal to 0.46 m³ (121.5 gallons) that is equipped with a cover and complies with all applicable Transportation Cabinet regulations on packaging hazardous waste for transport under 40 C.F.R. Subpart C, incorporated by reference in 601 KAR 1.025.

a. A container that is managed in accordance with the requirements of 40 C.F.R. Subpart C for the purpose of complying with this administrative regulation is not subject to any exceptions to the 40 C.F.R. Subpart C regulations, except as noted in subparagraph 2b of this paragraph.

b. A lab pack that is managed in accordance with the requirements of 40 C.F.R. Subpart C for the purpose of complying with this administrative regulation may comply with the exceptions for combination packagings specified in 40 C.F.R. Subpart C, incorporated by reference in 601 KAR 1.025.

3. A container that is attached to or forms a part of any truck, trailer, or railcar, and that has been demonstrated within the preceding twelve (12) months to be organic vapor tight when all container openings are in a closed, sealed position (for example, the container hatches or lids are gasketed and latched). For the purpose of meeting the requirements of this paragraph, a container is organic vapor tight if the container sustains a pressure change of not more than 750 pascals (0.11 psi) within five (5) minutes after it is pressurized to a minimum of 4,500 pascals (0.65 psi). This condition is to be demonstrated using the pressure test specified in Method 27 of 40 C.F.R. Part 60, Appendix A, and a pressure measurement device that has a precision of ± 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(b) An owner or operator treating hazardous waste in a container by either a waste stabilization process, any process that requires the addition of heat to the waste, or any process that produces an exothermic reaction shall meet the following requirements:

1. Whenever it is necessary for the container to be open during the treatment process, the container shall be located inside an enclosure that is vented through a closed-vent system to a control device.

2. The enclosure shall be a structure that is designed and operated in accordance with the following requirements:

a. The enclosure shall be a structure that is designed and operated with sufficient airflow into the structure to capture the organic vapors emitted from the hazardous waste in the container and vent the vapors through the closed-vent system to the control device.

b. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The pressure drop across each opening in the enclosure shall be maintained at a pressure below atmospheric pressure such that whenever an open container is placed inside the enclosure no organic vapors released from the container exit the enclosure through the opening. The owner or operator shall determine that an enclosure achieves this condition by measuring the pressure drop across each opening in the enclosure. If the pressure within the enclosure is equal to or greater than atmospheric pressure then the enclosure does not meet the requirements of this section.

3. The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section 8 of this administrative regulation.

(c) An owner or operator transferring hazardous waste into a container having a design capacity greater than 0.46 m³ (121.5 gallons) shall meet the following requirements:

1. Hazardous waste transfer by pumping shall be performed using a conveyance system that uses a tube (for example, pipe, hose) to add the waste into the container. During transfer of the waste into the container, the cover shall remain in place and all container openings shall be maintained in a closed, sealed position except for those openings through which the tube enters the container and as provided for in subsection (3) of this section. The tube shall be positioned in a manner such that either the:

a. Tube outlet continuously remains submerged below the waste surface at all times waste is flowing through the tube;

b. Lower bottom edge of the tube outlet is located at a distance no greater than two (2) inside diameters of the tube or 15.25 cm (six (6) inches), whichever distance is greater, from the bottom of the container at all times waste is flowing through the tube; or

c. Tube is connected to a permanent port mounted on the bottom of the container so that the lower edge of the port opening inside the container is located at a distance equal to or less than 15.25 cm (six (6) inches) from the container bottom.

2. Hazardous waste transferred by a means other than pumping shall be performed such that during transfer of the waste into the container, the cover remains in place and all container openings are maintained in a closed, sealed position except for those openings through which the hazardous waste is added and as provided for in subsection (4) of this section.

(3) Each container opening shall be maintained in a closed, sealed position (for example, covered by a gasketed lid) at all times that hazardous waste is in the container except when it is necessary to use the opening to:

(a) Add, remove, inspect, or sample the material in the container;

(b) Inspect, maintain, repair, or replace equipment located inside the container; or

(c) Vent gases or vapors from a cover located over or enclosing an open container to a closed-vent system connected to a control device that is designed and operated in accordance with the requirements of Section 8 of this administrative regulation.

(4) One (1) or more safety devices that vent directly to the atmosphere may be used on the container, cover, enclosure,

closed-vent system, or control device provided each device meets all of the following conditions:

(a) The safety device is not used for planned or routine venting of organic vapors from the container, cover, enclosure, or closed-vent system connected to a control device; and

(b) The safety device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the container, cover, enclosure, closed-vent system, or control device in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. An example of an unplanned event is a sudden power outage.

Section 8. Standards: Closed-vent Systems and Control Devices. (1) This section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this administrative regulation.

(2) The closed-vent system shall meet the following requirements:

(a) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the hazardous waste management unit to a control device that meets the requirements specified in subsection (3) of this section.

(b) The closed-vent system shall be designed and operated in accordance with the requirements specified in Section 4(1) of 401 KAR 35:275.

(c) If the closed-vent system contains one (1) or more bypass devices that may be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the following requirements:

1. For each bypass device except as provided for in subparagraph 2 of this paragraph, the owner or operator shall either:

a. Install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that indicates at least once every fifteen (15) minutes whether gas, vapor, or fume flow is present in the bypass device; or

b. Secure the valve installed at the inlet to the bypass device in the closed position using a car seal or a lock-and-key type configuration. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the closed position.

2. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of subparagraph 1 of this paragraph.

(3) The control device shall meet the following requirements:

(a) The control device shall be one (1) of the following devices:

1. A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least ninety-five (95) percent by weight;

2. An enclosed combustion device designed and operated in accordance with the requirements of Section 4(3) of 401 KAR 35:275; or

3. A flare designed and operated in accordance with the requirements of Section 4(4) of 401 KAR 35:275.

(b) The control device shall be operating at all times when gases, vapors, or fumes are vented from the hazardous waste management unit through the closed-vent system to the control device.

(c) The owner or operator using a carbon adsorption system to comply with paragraph (a) of this subsection shall operate and maintain the control device in accordance with the following requirements:

1. Following the initial start-up of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Section 4(7) or (8) of 401 KAR 35:275.

2. All carbon removed from the control device shall be managed in accordance with the requirements of Section 4(12) of 401 KAR 35:275.

(d) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with paragraph (a) of this subsection shall operate and maintain the control device in accor-

dance with the requirements of Section 4(9) of 401 KAR 35:275.

(e) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (a) of this subsection as follows:

1. An owner or operator shall demonstrate using either a performance test as specified in subparagraph 3 of this paragraph or a design analysis as specified in subparagraph 4 of this paragraph the performance of each control device except for the following:

a. A flare;

b. A boiler or process heater with a design heat input capacity of forty-four (44) megawatts or greater;

c. A boiler or process heater into which the vent stream is introduced with the primary fuel;

d. A boiler or process heater burning hazardous waste for which the owner or operator has been issued a final permit under 401 KAR Chapter 38 and designs and operates the unit in accordance with the requirements of 401 KAR 36:020, 36:025; or

e. A boiler or process heater burning hazardous waste for which the owner or operator has certified compliance with the interim status requirements of 401 KAR 36:020 and 36:025.

2. An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Section 4(5) of 401 KAR 35:275.

3. For a performance test conducted to meet the requirements of subparagraph 1 of this paragraph, the owner or operator shall use the test methods and procedures specified in Section 5(3)(a) through (d) of 401 KAR 35:275.

4. For a design analysis conducted to meet the requirements of subparagraph 1 of this paragraph, the design analysis shall meet the requirements specified in Section 6(2)(d)3 of 401 KAR 35:275.

5. The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of paragraph (a) of this subsection based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(f) If the owner or operator and the cabinet do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of paragraph (e)2 of this subsection. The cabinet may choose to have an authorized representative observe the performance test.

Section 9. Inspection and Monitoring Requirements. (1) This section applies to an owner or operator using air emission controls in accordance with the requirements of Sections 5 through 8 of this administrative regulation.

(2) Each cover used in accordance with requirements of Sections 5 through 7 of this administrative regulation shall be visually inspected and monitored for detectable organic emissions by the owner or operator using the procedure specified in subsection (6) of this section except as follows:

(a) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in subsection (6) of this section for the following tank covers:

1. A tank internal floating roof that is inspected and monitored in accordance with the requirements of Section 11 of this administrative regulation; or

2. A tank external floating roof that is inspected and monitored in accordance with the requirements of Section 11 of this administrative regulation.

(b) If a tank is buried partially or entirely underground, an owner or operator is required to perform the cover inspection and monitoring requirements specified in subsection (6) of this section only for those portions of the tank cover and those connections to the tank cover or tank body (for example fill ports, access hatches, gauge wells, etc.) that extend to or above the ground surface and can be opened to the atmosphere.

(c) An owner or operator is exempted from performing the cover inspection and monitoring requirements specified in subsection (6) of this section for a container that meets all requirements specified in either Section 7(2)(a)2 or 3 of this administrative regulation.

(d) An owner or operator is exempted from performing the

cover inspection and monitoring requirements specified in subsection (6) of this section for an enclosure used to control air emissions from containers in accordance with the requirements of Section 7(2)(b) of this administrative regulation.

(3) Each closed vent system used in accordance with the requirements of Section 8 of this administrative regulation shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 4(10) of 401 KAR 35.275.

(4) Each control device used in accordance with the requirements of Section 8 of this administrative regulation shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 4(6) of 401 KAR 35.275.

(5) The owner or operator shall develop and implement a written plan and schedule to perform all inspection and monitoring requirements of this section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section 6 of 401 KAR 35.020.

(6) Inspection and monitoring of a cover in accordance with the requirements of subsection (2) of this section shall be performed as follows:

(a) The cover and all cover openings shall be initially visually inspected and monitored for detectable organic emissions on or before the date that the tank, surface impoundment, or container using the cover becomes subject to the provisions of this administrative regulation and at other times as requested by the cabinet.

(b) At least once every six (6) months following the initial visual inspection and monitoring for detectable organic emissions required under paragraph (a) of this subsection, the owner and operator shall visually inspect and monitor the cover and each cover opening except for following cover openings:

1. A cover opening that has continuously remained in a closed, sealed position for the entire period since the last time the cover opening was visually inspected and monitored for detectable emissions;

2. A cover opening that is designated as unsafe to inspect and monitor in accordance with paragraph (e) of this subsection;

3. A cover opening on a cover installed and placed in operation before the effective date of this administrative regulation, that is designated as difficult to inspect and monitor in accordance with paragraph (f) of this subsection.

(c) To visually inspect a cover, the owner or operator shall view the entire cover surface and each cover opening in a closed, sealed position for evidence of any defect that may affect the ability of the cover or cover opening to continue to operate with no detectable organic emissions. A visible hole, gap, tear, or split in the cover surface or a cover opening is defined as a leak that shall be repaired in accordance with paragraph (g) of this subsection.

(d) To monitor a cover for detectable organic emissions, the owner or operator shall use the following procedure:

1. Method 21 in 40 C.F.R. Part 60, Appendix A to test each cover seal and cover connection for detectable organic emissions. Seals on floating membrane covers shall be monitored around the entire perimeter of the cover at locations spaced no greater than three (3) meters (9.8 feet) apart.

2. For all cover connections and seals except for the seals around a rotating shaft that passes through a cover opening, if the monitoring instrument indicates detectable organic emissions (that is, an instrument concentration reading greater than 500 ppmv plus the background level), then a leak is detected. Each detected leak shall be repaired in accordance with paragraph (g) of this subsection.

3. For the seals around a rotating shaft that passes through a cover opening, if the monitoring instrument indicates a concentration reading greater than 10,000 ppmv, then a leak is detected. Each detected leak shall be repaired in accordance with paragraph (g) of this subsection.

(e) An owner or operator may designate a cover as an unsafe to inspect and monitor cover if all of the following conditions are met:

1. The owner or operator determines that inspection or monitoring of the cover would expose a worker to dangerous, hazardous, or other unsafe conditions.

2. The owner or operator develops and implements a written plan and schedule to inspect the cover using the procedure spec-

ified in paragraph (e) of this subsection and monitor the cover using the procedure specified in paragraph (d) of this subsection as frequently as practicable during those times when a worker can safely access the cover.

(f) An owner or operator may designate a cover installed and placed in operation before the effective date of this administrative regulation, as a difficult to inspect and monitor cover if all of the following conditions are met:

1. The owner or operator determines that inspection or monitoring the cover requires elevating a worker to a height greater than two (2) meters (6.56 feet) above a support surface; and

2. The owner and operator develops and implements a written plan and schedule to inspect the cover using the procedure specified in paragraph (e) of this subsection, and to monitor the cover using the procedure specified in paragraph (d) of this subsection at least once per calendar year.

(g) When a leak is detected by either of the methods specified in paragraph (c) or (d) of this subsection, the owner or operator shall repair the leak in the following manner:

1. The owner or operator shall make a first attempt at repairing the leak no later than five (5) calendar days after the leak is detected. Repair of the leak shall be completed as soon as practicable, but no later than fifteen (15)

calendar days after the leak is detected. If repair of the leak cannot be completed within the fifteen (15) day period, except as provided in subparagraph 2 of this paragraph, then the owner or operator shall not add hazardous waste to the tank, surface impoundment, or container on which the cover is installed until the repair of the leak is completed.

2. Repair of a leak detected on a cover installed on a tank or surface impoundment may be delayed beyond fifteen (15) calendar days if the owner or operator determines that both of the following conditions occur:

a. Repair of the leak requires first emptying the contents of the tank or surface impoundment; and

b. Temporary removal of the tank or surface impoundment from service shall result in the uncheduled cessation of production from the process unit or operation of the hazardous waste management unit that is generating the hazardous waste managed in the tank or surface impoundment.

3. Repair of a leak determined by the owner or operator to meet the conditions specified in subparagraph 2 of this paragraph shall be performed at the next time the process, system, or hazardous waste management unit that is generating the hazardous waste managed in the tank or surface impoundment stops operation for any reason.

Section 10. Recordkeeping Requirements. (1) Each owner or operator of a facility subject to requirements in this administrative regulation shall record and maintain the following information as applicable:

(a) Documentation for each cover installed on a tank in accordance with the requirements of Section 5(2)(b) or (c) of this administrative regulation that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in Section 11(3) of this administrative regulation.

(b) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Section 6(3) of this administrative regulation that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 6(5) of this administrative regulation.

(c) Documentation for each enclosure used to control air emissions from containers in accordance with the requirements of Section 7(2)(b)1 of this administrative regulation that includes information prepared by the owner or operator or provided by the manufacturer or vendor describing the enclosure design, and certification by the owner or operator that the enclosure meets the specifications listed in Section 7(2)(b)2 of this administrative regulation.

(d) Documentation for each closed vent system and control device installed in accordance with the requirements of Section 8 of this administrative regulation that includes:

1. Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in subparagraph 2 of this paragraph or by performance tests as specified in subparagraph 3 of this paragraph when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

2. If a design analysis is used, the design documentation as specified in Section 6(2)(d) of 401 KAR 35:275. The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 6(2)(d)3 of 401 KAR 35:275 and certification by the owner or operator that the control equipment meets the applicable specifications.

3. If performance tests are used, the performance test plan as specified in Section 6(2)(d) of 401 KAR 35:275 and all test results.

4. Information as required by Section 6(3)(a) and (b) of 401 KAR 35:275.

(e) Records for all Method 27 tests performed by the owner or operator for each container used to meet the requirements of Section 7(2)(a)3 of this administrative regulation.

(f) Records for all visual inspections conducted in accordance with the requirements of Section 9 of this administrative regulation.

(g) Records for all monitoring for detectable organic emissions conducted in accordance with the requirements of Section 9 of this administrative regulation.

(h) Records of the date of each attempt to repair a leak, repair methods applied, and the date of successful repair.

(i) Records for all continuous monitoring conducted in accordance with the requirements of Section 9 of this administrative regulation.

(j) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 8(3)(e)2 of this administrative regulation.

(k) Records for all inspections of each cover installed on a tank in accordance with the requirements of Section 5(2)(b) or (c) of this administrative regulation that includes information as listed in Section 11(3) of this administrative regulation.

(2) An owner or operator electing to use air emission controls for a tank in accordance with the conditions specified in Section 5(3) of this administrative regulation shall record the following information:

(a) Date and time each waste sample is collected for direct measurement of maximum organic vapor pressure in accordance with Section 4(3) of this administrative regulation.

(b) Results of each determination for the maximum organic vapor pressure of the waste in the tank performed in accordance with Section 4(3) of this administrative regulation.

(c) Records specifying the tank dimensions and design capacity.

(3) An owner or operator electing to use air emission controls for a tank in accordance with the requirements of Section 11 of this administrative regulation shall record the information required by Section 11(3) of this administrative regulation.

(4) An owner or operator electing not to use air emission controls for a particular tank, surface impoundment, or container subject to this administrative regulation in accordance with the conditions specified in Section 3(3) of this administrative regulation shall record the information used by the owner or operator for each waste determination (for example, test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section 4 of this administrative regulation.

(5) An owner or operator electing to comply with requirements in accordance with Section 3(3)(b)4 or 5 of this administrative regulation shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

(6) An owner or operator designating a cover as unsafe to inspect and monitor pursuant to Section 9(6)(e) of this administra-

tive regulation or difficult to inspect and monitor pursuant to Section 9(6)(f) of this administrative regulation shall record in a log that is kept in the facility operating record the following information:

(a) A list of identification numbers for tanks with covers that are designated as unsafe to inspect and monitor in accordance with the requirements of Section 9(6)(e) of this administrative regulation, an explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(b) A list of identification numbers for tanks with covers that are designated as difficult to inspect and monitor in accordance with the requirements of Section 9(6)(f) of this administrative regulation, an explanation for each cover stating why the cover is difficult to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(7) All records required by subsection (1) through (6) of this section except as required in subsection (1)(a) through (d) of this section shall be maintained in the operating record for a minimum of three (3) years. All records required by subsection (1)(a) through (d) of this section shall be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service.

(8) The owner or operator of a facility that is subject to this administrative regulation and to the control device standards in 40 C.F.R. Part 60 Subpart VV, or 40 C.F.R. Part 61 Subpart V, may elect to demonstrate compliance with the applicable sections of this administrative regulation by documentation either pursuant to this administrative regulation, or pursuant to the provisions of 40 C.F.R. Part 60 Subpart VV or 40 C.F.R. Part 61 Subpart V, to the extent that the documentation required by 40 C.F.R. Parts 60 or 61 duplicates the documentation required by this section.

(9) For each tank or container not using air emission controls specified in Sections 5 through 8 of this administrative regulation in accordance with the conditions specified in Section 1(4) of this administrative regulation, the owner or operator shall record and maintain the following information:

(a) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 1(4)(a) of this administrative regulation.

(b) A description of how the hazardous waste containing the organic peroxide compounds identified in paragraph (a) of this subsection are managed at the facility in tanks and containers. This description shall include:

1. For the tanks used at the facility to manage this hazardous waste, sufficient information shall be provided to describe for each tank a facility identification number for the tank; the purpose and placement of this tank in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

2. For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to describe: a facility identification number for the container or group of containers, the purpose and placement of this container, or group of containers, in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.

(c) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified in subsection (9)(a) of this section in the tanks and containers as described in subsection (9)(b) of this section would create an undue safety hazard if the air emission controls, as required under Sections 5 through 8 of this administrative regulation, are installed and operated on these hazardous waste management units. The explanation shall include the following information:

1. For tanks used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks, and why installation of safety devices on the required air emission controls, as allowed under Section 5(7) of this administrative regulation, will not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineer-

ing and safety practices for handling organic peroxides.

2. For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain how use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under Section 7(4) of this administrative regulation, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

Section 11. Alternative Tank Emissions Control Requirements.
(1) This section applies to owners and operators of tanks electing to comply with Section 5(2)(b) or (c) of this administrative regulation.

(a) The owner or operator electing to comply with Section 5(2)(b) of this administrative regulation shall design, install, operate, and maintain a fixed roof and internal floating roof that meet the following requirements:

1. The fixed roof shall comply with the requirements of Section 5(4)(a) of this administrative regulation. The internal floating roof shall rest or float on the waste surface (but not necessarily in complete contact with it) inside a tank that has a fixed roof. The internal floating roof shall be floating on the waste surface at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2. Each internal floating roof shall be equipped with one (1) of the following closure devices between the wall of the tank and the edge of the internal floating roof:

a. A foam or liquid-filled seal mounted in contact with the waste (liquid mounted seal). A liquid-mounted seal means a foam or liquid-filled seal mounted in contact with the waste between the wall of the tank and the floating roof continuously around the circumference of the tank.

b. Two (2) seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the tank and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both shall be continuous.

c. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the tank by springs or weighted levers and is connected by braces to the floating roof. A flexible-coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

3. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the waste surface.

4. Each opening in the internal floating roof except for leg cleaves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid that is to be maintained in a closed position at all times (that is, no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

5. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

6. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

7. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least ninety (90) percent of the opening.

8. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

9. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(b) The owner or operator electing to comply with Section 5(2)(c) of this administrative regulation shall design, install, operate, and maintain an external floating roof that meets the following requirements:

1. Each external floating roof shall be equipped with a closure device between the wall of the tank and the roof edge. The closure device is to consist of two (2) seals, one (1) above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

a. The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in subsection (2)(b)4 of this section, the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

b. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except as allowed in subsection (2)(b)4 of this section.

2. Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the waste surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg cleaves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (that is, no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least ninety (90) percent of the area of the opening.

3. The roof shall be floating on the waste at all times (that is, off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(c) The owner or operator may elect to comply with Section 5(2)(b) or (c) of this administrative regulation using an alternative means of emission limitation that is permitted as an alternative means for the purpose of compliance with 40 C.F.R. 60.112(b).

(2) Monitoring and inspection of the control equipment described in subsection (1) of this section shall be conducted as follows:

(a) After installation, owners or operators of internal floating roofs shall:

1. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one (1) is in service), prior to filling the tank with waste. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the tank.

2. For tanks equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every twelve (12) months after initial fill. If the internal floating roof is not resting on the surface of the waste inside the tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the tank from service within forty five (45) days. If a failure that is detected during inspections required in this paragraph cannot be repaired within forty five (45) days and if the tank cannot be emptied within forty five (45) days, a thirty (30) day extension may be requested from the cabinet. Such a request for an extension shall document that alternate capacity is unavailable and specify a schedule of actions the owner or operator shall take that shall assure that the control equipment shall be repaired or the tank shall be emptied as soon as possible.

3. For tanks equipped with a double seal system as specified in subsection (1)(a)2b of this section:

a. Visually inspect the tank as specified in subparagraph 4 of this paragraph at least every five (5) years; or

b. Visually inspect the tank as specified in subparagraph 2 of this paragraph.

4. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one (1) is in service), gaskets, clotted membranes, and cleave seals (if any) each time the tank is emptied and degassed. If the internal floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the waste surfaces from the atmosphere, or the clotted membrane has more than ten (10) percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the tank with waste. In no event shall inspections conducted in accordance with this provision occur at intervals greater than ten (10) years in the case of tanks conducting the annual visual inspection as specified in subparagraph 2 of this paragraph, and at intervals no greater than five (5) years in the case of tanks specified in subparagraph 3 of this paragraph.

5. Notify the cabinet in writing at least thirty (30) days prior to the filling or refilling of each tank for which an inspection is required by subparagraph 1 through 4 of this paragraph to afford the cabinet the opportunity to have an observer present. If the inspection required by subparagraph 4 of this paragraph is not planned and the owner or operator may not have known about the inspection thirty (30) days in advance of refilling the tank, the owner or operator shall notify the cabinet at least seven (7) days prior to the refilling of the tank. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the cabinet at least seven (7) days prior to the refilling.

(b) After installation, the owner or operator of an external floating roof shall:

1. Determine the gap areas and maximum gap widths between the primary seal and the wall of the tank and between the secondary seal and the wall of the tank according to the following frequency:

a. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the tank or within sixty (60) days of the initial fill with waste and at least once every five (5) years thereafter.

b. Measurements of gaps between the tank wall and the secondary seal shall be performed within sixty (60) days of the initial fill with waste and at least once per year thereafter.

c. If any tank ceases to hold waste for a period of one (1) year or more, subsequent introduction of waste into the tank shall be considered an initial fill for the purposes of subparagraphs 1a and 1b of this section.

2. Determine the gap widths and areas in the primary and secondary seals individually by the following procedures:

a. Measure seal gaps, if any, at one (1) or more floating roof levels when the roof is floating off the roof leg supports.

b. Measure seal gaps around the entire circumference of the tank in each place where a 0.32 cm (0.31 inches) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

c. Determine the total surface area of each gap described in subparagraph 2b of this paragraph by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

3. Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in subparagraph 4 of this paragraph.

4. Make necessary repairs or empty the tank within forty five (45) days of identification in any inspection for seals not meeting the following requirements:

a. The accumulated area of gaps between the tank wall and

the mechanical shoe or liquid mounted primary seal shall not exceed 212 cm² per meter (one (1) inch² per ft) of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm (one and one half (1.5) inches).

(i) One (1) end of the mechanical shoe is to extend into the waste contained in the tank, and the other end is to extend a minimum vertical distance of sixty one (61) cm above the waste surface.

(ii) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

b. The secondary seal is to meet the following requirements:

(i) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in subparagraph 2c of this paragraph.

(ii) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm² per meter (one (1) inch² per foot) of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm (0.5 inches).

(iii) There are to be no holes, tears, or other openings in the seal or seal fabric.

5. If a failure that is detected during inspections required in subparagraph 1 of this paragraph cannot be repaired within 45 days and if the tank cannot be emptied within forty five (45) days, a thirty (30) day extension may be requested from the cabinet. Such extension request shall include a demonstration of the unavailability of alternate capacity and a specification of a schedule that shall assure that the control equipment shall be repaired or the tank shall be emptied as soon as possible.

6. Notify the cabinet thirty (30) days in advance of any gap measurements required by subparagraph 1 of this paragraph to afford the cabinet the opportunity to have a representative present.

7. Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

a. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this subsection exist before filling or refilling the tank with waste.

b. For all the inspections required by this subparagraph, the owner or operator shall notify the cabinet in writing at least thirty (30) days prior to the filling or refilling of each tank to afford the cabinet the opportunity to inspect the tank prior to refilling. If the inspection required by this subparagraph is not planned and the owner or operator may not have known about the inspection thirty (30) days in advance of refilling the tank, the owner or operator shall notify the cabinet at least seven (7) days prior to the refilling of the tank. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, may be made in writing and sent by express mail so that it is received by the cabinet at least seven (7) days prior to the refilling.

(3) Owners or operators who elect to install and operate the control equipment in subsection (1) of this section shall include the following information in the operating record in accordance with the requirements of Section 10(1)(a) and (k) of this administrative regulation:

(a) Internal floating roof.

1. Documentation that describes the control equipment design and certifies that the control equipment meets the specifications of subsections (1)(a) and (2)(a) of this section.

2. Records of each inspection performed as required by subsection (2)(a)1 through 4 of this section. Each record shall identify the tank on which the inspection was performed and shall contain the date the tank was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

3. If any of the conditions described in subsection (2)(a)2 of this section are detected during the annual visual inspection required by subsection (2)(a)2 of this section, the records shall identify the tank, the nature of the defects, and the date the tank was

emptied or the nature of and date the repair was made.

4. After each inspection required by subsection (2)(a)3 of this section that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in subsection (2)(a)2 of this section, the records shall identify the tank and the reason it did not meet the specifications of subsection (1)(a) or (2)(a)3 of this section and describe each repair made.

(b) External floating roof.

1. Documentation that describes the control equipment design and certifies that the control equipment meets the specifications of subsections (1)(b) and (2)(b)2 through 4 of this section.

2. Records of each gap measurement performed as required by subsection (2)(b) of this section. Each record shall identify the tank in which the measurement was performed, the date of measurement, the raw data obtained in the measurement, and the calculations described in subsections (2)(b)2 and 3 of this section.

3. Records for each seal gap measurement that detects gaps exceeding the limitations specified by subsection (2)(b)4 of this section that identifies the tank, the date the tank was emptied or the repairs made, and the nature of the repair.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:285. Drip pads (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 265 Subpart W

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 40 C.F.R. 265 Subpart W

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes [implements provisions of KRS 224.46-520 by establishing] minimum standards for drip pads qualifying for interim status [This administrative regulation is equivalent to the corresponding federal regulations except the text of the federal regulations referenced in this administrative regulation includes dates that occurred before the effective date of the incorporation of those requirements into this administrative regulation. Such dates shall not be construed as creating a retroactive right or obligation under the Kentucky Hazardous Waste Regulations when that right or obligation did not exist in this regulation prior to the date the federal regulations were referenced. If a right or obligation existed under federal regulations based on a date in federal regulations and there is a period from the date cited in the incorporated text until the date they initially took effect in this regulation, nothing in this regulation shall contravene or countermand the legal application of the federal regulation for that period.] [To implement provisions of KRS 224.46-520 and to establish minimum standards for drip pads qualifying for interim status.]

Section 1. Applicability. (1) The subject matter shall be governed by 40 C.F.R. 265.440, effective July 1, 2005.

(2) The following provisions shall apply in lieu of 40 C.F.R. 265.440(c)(1)(iv) [requirements contained within 40 C.F.R.

265.440(c)(iv) shall be replaced with the following]: Manage the contaminated media in a manner consistent with KRS Chapter 224 and 401 KAR Chapters 30 through 49

Section 2. Assessment of Existing Drip Pad Integrity. The subject matter shall be governed by 40 C.F.R. 265.441, effective July 1, 2005.

Section 3. Design and Installation [Installation] of New Drip Pads. The subject matter shall be governed by 40 C.F.R. 265.442, effective July 1, 2005.

Section 4. Design and Operating Requirements. (1) The subject matter shall be governed by 40 C.F.R. 265.443, effective July 1, 2005.

(2) In addition to the requirements in subsection (1) [4] of this section, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired within a reasonably prompt period of time following discovery, in accordance with KRS 224.01-400.

Section 5. Inspections. The subject matter shall be governed by 40 C.F.R. 265.444, effective July 1, 2005.

Section 6. Closure. The subject matter shall be governed by 40 C.F.R. 265.445, effective July 1, 2005.

Section 7. Effective Dates. (1) Dates included in the federal regulations referenced in this administrative regulation that occurred before the effective date of this administrative regulation shall not be construed as creating a retroactive right or obligation under the Kentucky hazardous waste administrative regulations if that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced.

(2) If a right or obligation existed under federal regulations based on a date in federal regulations, and there is a period from the date cited in the text until the date the requirements initially became effective in this administrative regulation, this administrative regulation shall not contravene or countermand the legal application of the federal regulation for that period. [The requirements of this administrative regulation apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drppage, precipitation, or surface water run-off to an associated collection system. Existing drip pads are those constructed before the effective date of this administrative regulation, and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to the effective date of this administrative regulation. All other drip pads are new drip pads. The requirement at Section 4(2)(e) of this administrative regulation to install a leak collection system applies only to those drip pads that are constructed after the effective date of this administrative regulation, except for those constructed after the effective date of this administrative regulation for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to the effective date of this administrative regulation.]

(2) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to Section 4(5) or (6) of this administrative regulation, as appropriate.

(3) This administrative regulation is not applicable to the management of infrequent and incidental drppage in storage yards provided that:

(a) The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of infrequent and incidental drppage, and

(b) At a minimum, the contingency plan shall describe how the facility will do the following:

1. Clean up the drppage, and
2. Document the cleanup of the drppage, and
3. Retain documents regarding cleanup for three (3) years; and
4. Manage the contaminated media in a manner consistent

with KRS Chapter 224 and 401 KAR Chapters 30 to 49.

Section 2. Assessment of Existing Drip Pad Integrity. (1) For each existing drip pad as defined in Section 1 of this administrative regulation, the owner or operator shall evaluate the drip pad and determine that it meets all of the requirements of this administrative regulation, except the requirements for liners and leak detection systems of Section 4(2) of this administrative regulation. The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an engineer, that attests to the results of the evaluation. This assessment shall be obtained no later than December 21, 1992 for F032 wastes, and no later than the effective date of this administrative regulation for F034 and F035 wastes. The assessment shall be reviewed, updated and recertified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of Section 4 of this administrative regulation are complete. The evaluation shall document the extent to which the drip pad meets each of the design and operating standards of Section 4 of this administrative regulation, except the standards for liners and leak detection systems, specified in Section 4(2) of this administrative regulation.

(2) The owner or operator shall develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Section 4(2) of this administrative regulation and submit the plan to the cabinet no later than two (2) years before the date that all repairs, upgrades, and modifications will be complete. This written plan shall describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section 4 of this administrative regulation. The plan shall be reviewed and certified by an engineer.

(3) Upon completion of all repairs and modifications, the owner or operator shall submit to the cabinet the as-built drawings for the drip pad together with a certification by an engineer attesting that the drip pad conforms to the drawings.

(4) If the drip pad is found to be leaking or unfit for use, the owner or operator shall comply with the provisions of Section 4(13) of this administrative regulation or close the drip pad in accordance with Section 6 of this administrative regulation.

Section 3. Design and Installation of New Drip Pads. Owners and operators of new drip pads shall ensure that the pads are designed, installed, and operated in accordance with one (1) of the following:

(1) All of the applicable requirements of Sections 4 (except Section 4(1)(d)), 5, and 6 of this administrative regulation, or

(2) All of the applicable requirements of Sections 4 (except Section 4(2)), 5, and 6 of this administrative regulation.

Section 4. Design and Operating Requirements (1) Drip pads shall:

(a) Be constructed of nonearthen materials, excluding wood and nonstructurally supported asphalt;

(b) Be sloped to free drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(c) Have a curb or berm around the perimeter; and

(d) Be impermeable (for example, concrete pads shall be sealed, coated, or covered with an impermeable material) so that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system.

1. Have a hydraulic conductivity of less than or equal to 1×10^{-2} centimeters per second. Existing concrete drip pads shall be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1×10^{-2} centimeters per second so that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material shall be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material shall be chemically compatible with the preservatives that contact the drip pad. The requirements of this subparagraph apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with Section 3(1) instead of 3(2) of this administrative regula-

tion.

2. The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an engineer, that attests to the results of the evaluation. The evaluation shall be reviewed, updated, and recertified annually. The evaluation shall document the extent to which the drip pad meets the design and operating standards of this section, except for subsection (b) of this section.

(e) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations (for example, variable and moving loads such as vehicle traffic and movement of wood). (The cabinet will generally consider applicable standards established by professional organizations generally recognized by industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirement of this paragraph.)

(2) If an owner or operator elects to comply with Section 3(1) instead of Section 3(2) of this administrative regulation, the drip pad shall have:

(a) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner shall be constructed of materials that will prevent waste from being absorbed into the liner and prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner shall be:

1. Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

2. Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

3. Installed to cover all surrounding earth that could come in contact with the waste or leakage.

(b) A leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system shall be:

1. Constructed of materials that are:

a. Chemically resistant to the waste managed in the drip pad and the leakage that might be generated;

b. Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying materials and by any equipment used at the drip pad.

2. Designed and operated to function without clogging through the scheduled closure of the drip pad; and

3. Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(c) A leakage collection system immediately above the liner that is designed, constructed, maintained, and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed shall be documented in the operating log.

(3) Drip pads shall be maintained so that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad. (Refer to subsection (13) of this section for remedial action required if deterioration or leakage is detected.)

(4) The drip pad and associated collection system shall be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(5) Unless protected by a structure, as described in Section 1(2) of this administrative regulation, the owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a twenty-four (24) hour, twenty-five (25) year storm

unless the system has sufficient excess capacity to contain any run-on that might enter the system, or the drip pad is protected by a structure or cover, as described in Section 4(2) of this administrative regulation.

(6) Unless protected by a structure or cover, as described in Section 4(2) of this administrative regulation, the owner or operator shall design, construct, operate, and maintain a runoff management system to collect and control at least the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm.

(7) The drip pad shall be evaluated to determine that it meets the requirements of subsections (1) to (6) of this section and the owner or operator shall obtain a statement from an engineer certifying that the drip pad design meets the requirements of this section.

(8) Drillage and accumulated precipitation shall be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(9)(a) The drip pad surface shall be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad.

(b) The owner or operator shall document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(10) Drip pads shall be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(11) After being removed from the treatment vessel, treated wood from pressure and nonpressure processes shall be held on the drip pad until drillage has ceased. The owner or operator shall maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(12) Collection and holding units associated with run-on and runoff control systems shall be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(13) Throughout the active life of the drip pad, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(a) Upon detection of a condition that may have caused or has caused a release of hazardous waste (upon detection of leakage by the leak detection system), the owner or operator shall:

1. Enter a record of the discovery in the facility operating log;
2. Immediately remove the portion of the drip pad affected by the condition from service;
3. Determine what steps must be taken to repair the drip pad, remove any leakage from below the drip pad, and establish a schedule for accomplishing the cleanup and repairs; and
4. Within twenty-four (24) hours after discovery of the condition (or immediately if required by KRS 224.01-400), notify the cabinet of the condition and, within ten (10) working days, provide a written notice to the cabinet with a description of the steps that will be taken to repair the drip pad, and clean up any leakage, and the schedule for accomplishing this work.

(b) The cabinet shall review the information submitted, make a determination regarding whether the pad shall be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(c) Upon completing all repairs and cleanup, the owner or operator shall notify the cabinet in writing and provide a certification, signed by an engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with paragraph (a)4 of this subsection.

(d) The owner or operator shall comply with all applicable requirements of KRS 224.01-400. However, compliance with KRS 224.01-400 shall not exempt the owner or operator from compliance with this administrative regulation.

(14) The owner or operator shall maintain, as part of the facility

operating log, documentation of past operating and waste handling practices. This shall include identification of preservative formulations used in the past, a description of drillage management practices, and a description of treated wood storage and handling practices.

Section 5—Inspections. (1) During construction or installation, liners and cover systems (for example, membranes, sheets, or coatings) shall be inspected for uniformity, damage, and imperfections (for example, holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners shall be inspected and certified as meeting the requirements of Section 4 of this administrative regulation by an engineer. The certification shall be maintained at the facility as part of the facility operating record. After installation, liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(2) While a drip pad is in operation, it shall be inspected weekly and after storms to detect evidence of the following:

- (a) Deterioration, malfunctions or improper operation of run-on and run-off control systems; or
- (b) The presence of leakage in and proper functioning of leakage detection system; or
- (c) Deterioration or cracking of the drip pad surface.

Section 6. Closure. (1) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (for example, pad and liners), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(2) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (1) of this section, the owner or operator finds that not all contaminated subsoils can be practically removed or decontaminated, he shall close the facility and perform postclosure care in accordance with closure and postclosure care requirements that apply to landfills (Section 4 of 401 KAR 35-230). For permitted units, the requirement to have a permit continues throughout the postclosure period.

(3)(a) The owner or operator of an existing drip pad, as defined in Section 1 of this administrative regulation, that does not comply with the liner requirements of Section 4(2)(a) shall:

1. Include in the closure plan for the drip pad under Section 3 of 401 KAR 35-080 both a plan for complying with subsection (1) of this section and a contingent plan for complying with subsection (2) of this section in case not all contaminated subsoils can be practicably removed at closure; and

2. Prepare a contingent postclosure plan under Section 9 of 401 KAR 35-070 for complying with subsection (2) of this section in case not all contaminated subsoils can be practicably removed at closure.

(b) The cost estimates calculated under Section 3 of 401 KAR 35-070 and Section 1 of 401 KAR 35-100 for closure and postclosure care of a drip pad subject to this subsection shall include the cost of complying with the contingent closure plan and the contingent postclosure plan, but are not required to include the cost of expected closure under subsection (1) of this section.]

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:290. Appendix on recordkeeping Instructions (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Appendix I

STATUTORY AUTHORITY: 224.10-100, 224.46-520[40 C.F.R. 265 Appendix I]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the **Environmental and Public Protection** Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes minimum standards for recordkeeping.

Section 1. Recordkeeping Instructions. The subject matter shall be governed by 40 C.F.R. 265 Appendix I, effective July 1, 2005. [The recordkeeping provisions of Section 4 of 401 KAR 35.050 specify that an owner or operator must keep a written operating record at his site or facility. This appendix provides additional instructions for keeping portions of the operating record. See Section 4(2) of 401 KAR 35.050 for additional recordkeeping requirements. The following information must be recorded as it becomes available and maintained in the operating record until closure of the facility in the following manner. Records of each hazardous waste received, treated, stored or disposed of at the facility which include the following:

(1) A description by its common name and the EPA hazardous waste number(s) from 401 KAR Chapter 31 which apply to the waste. The waste description also must include the waste's physical form (i.e., liquid, sludge, solid or contained gas). If the waste is not listed in 401 KAR 31.040, the description also must include the process that produced it (for example, solid filter cake from production of _____ EPA hazardous waste number W051). Each hazardous waste listed in 401 KAR 31.040 and each hazardous waste characteristic defined in 401 KAR 31.030 has a four (4) digit EPA hazardous waste number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one (1) listed hazardous waste, or where more than one (1) hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA hazardous waste numbers.

(2) The estimated or manifest reported weight, or volume and density, where applicable, in one (1) of the units of measure specified in Table 1; and

Unit of Measure	Code [†]
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds per Hour	J
Kilograms per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre feet	A
Hectares	Q
Hectare meter	F
BTU's per Hour	I

[†] Single digit symbols are used here for data processing purposes

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage or disposal.

Handling Codes for Treatment, Storage, and Disposal Methods.
(Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.)

1-Storage	
S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste pile
S04	Surface impoundment
S05	Drip pad
S06	Containment building (storage)
S09	Other storage (specify)
2-Treatment	
(a) Thermal treatment	
T06	Liquid injection incineration
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)
(b) Chemical treatment	
T19	Absorption mound
T20	Absorption field
T21	Chemical fixation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)
(c) Physical treatment	
(1) Separation of components	
T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)
(2) Removal of specific components	
T48	Absorption molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery

T64	Strapping
T65	Sand filter
T66	Other (specify)
(d) Biological treatment	
T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)
(e) Boilers and industrial furnaces	
T80	Boiler
T81	Cement kiln
T82	Lime kiln
T83	Aggregate kiln
T84	Phosphate kiln
T85	Coke oven
T86	Blast furnace
T87	Smelting, melting, or refining furnace
T88	Titanium dioxide chloride process oxidation reactor
T89	Methane reforming furnace
T90	Pulping liquor recovery furnace
T91	Combustion device used in the recovery of sulfur values from spent sulfonic acid
T92	Halogen acid furnaces
T93	Other industrial furnaces (specify)
(f) Other treatment	
T94	Containment building (treatment)
3 Disposal	
D79	Underground injection
D80	Landfill
D81	Land treatment
D82	Ocean disposal
D83	Surface impoundment (to be closed as a landfill)
D99	Other (specify)
4 Miscellaneous	
X01	Open burning or open detonation
X02	Mechanical processing
X03	Thermal unit
X04	Geologic repository
X99	Other (specify)

requires the **Environmental and Public Protection** Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes the interim primary drinking water standards.

Section 1. Interim Primary Drinking Water Standards. The subject matter shall be governed by 40 C.F.R. 265 Appendix III, effective July 1, 2005.

[Table 1 contains the interim primary drinking water standards for use in characterizing groundwater and surface water at a hazardous waste site or facility.]

Parameter	Maximum Level
Arsenic	0.05 (mg/l)
Barium	1.0 (mg/l)
Cadmium	0.01 (mg/l)
Chromium	0.05 (mg/l)
Fluoride	1.4-2.4 (mg/l)
Lead	0.05 (mg/l)
Mercury	0.002 (mg/l)
Nitrate (as N)	10 (mg/l)
Selenium	0.01 (mg/l)
Silver	0.05 (mg/l)
Endrin	0.0002 (mg/l)
Lindane	0.004 (mg/l)
Methoxychlor	0.1 (mg/l)
Toxaphene	0.005 (mg/l)
2,4-D	0.1 (mg/l)
2,4,6-TP Silvex	0.004 (mg/l)
Radium	5 pCi/l
Gross Alpha	15 pCi/l
Gross Beta	4 millirem/yr
Turbidity*	1/TU
Coliform bacteria	1/100 ml

*Turbidity is applicable only to surface water supplies.]

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:320. Appendix on tests for significance (Interim Status) [(4S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Appendix IV
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520 [40 C.F.R. 265 Appendix IV]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the **Environmental and Public Protection** Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone: (502) 564-6716 fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:310. Appendix on Interim primary drinking water standards (Interim Status) [(4S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Appendix III

STATUTORY AUTHORITY: KRS 224.46-505, 224.46-520 [40 C.F.R. 265 Appendix III]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520

the tests for significance.

Section 1. Tests for Significance. The subject matter shall be governed by 40 C.F.R. 265 Appendix IV, effective July 1, 2005. [As required in Section 4(2) of 401 KAR 35.060 the owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic groundwater samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For three (3) of the indicator parameters (specific conductance, total organic carbon, and total organic halogen) a single-tailed Student's t-test must be used to test at the 0.01 level of significance for significant increases over background. The difference test for pH must be a two (2) tailed Student's t-test at the overall 0.01 level of significance. The Student's t-test involves calculation of the value of a t-statistic for each comparison of the mean (average) concentration or value (based on a minimum of four (4) replicate measurements) of an indicator parameter with its initial background concentration or value. The calculated value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter. Formulas for calculation of the t-statistic and tables for t-test of significance can be found in most introductory statistics texts.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:330. Appendix on examples of potentially incompatible waste (Interim Status) [(IS)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Appendix V, STATUTORY AUTHORITY KRS 224.10-100, 224.46-505, 224.46-520 [40 C.F.R. 265 Appendix V]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. [This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.] This administrative regulation establishes examples of potentially incompatible wastes.

Section 1. Examples of Potentially Incompatible Waste. The subject matter shall be governed by 40 C.F.R. 265 Appendix V, effective July 1, 2005. [Many hazardous wastes, when mixed with other waste or materials at a hazardous waste site or facility, can produce effects which are harmful to human health and the environment, such as:

- (1) Heat or pressure;
- (2) Fire or explosion;
- (3) Violent reaction;
- (4) Toxic dusts, mists, fumes, or gases; or
- (5) Flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one (1) group with materials

in another group. The list is intended as a guide to owners or operators of treatment, storage and disposal facilities, and to enforcement and permit-granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components. This list is not intended to be exhaustive. An owner or operator must, as the administrative regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not. It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator). In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A	Group 1-B	
Acetylene sludge	Acid sludge	
Alkaline caustic liquids	Acid and water	
Alkaline cleaner	Battery acid	
Alkaline corrosive liquids	Chemical cleaners	
Alkaline corrosive battery fluid	Electrolyte, acid	
Caustic wastewater	Etching acid liquid or solvent	
Lime sludge and other corrosive alkalines)	Pickling liquor and other corrosive acids	
Lime wastewater	Spent acid	
Lime and water	Spent mixed acid	
Spent caustic	Spent sulfonic acid	
Potential consequences: Heat generation; violent reaction.		
Group 2-A	Group 2-B	
Aluminum	Any waste in Group 1-A or 1-B	
Beryllium		
Calcium		
Lithium		
Magnesium		
Potassium		
Sodium		
Zinc powder		
Other reactive metals and metal hydrides		
Potential consequences: Fire or explosion; generation of flammable hydrogen gas.		
Group 3-A	Group 3-B	
Alcohols	Any concentrated waste in Groups 1-A or 1-B	
Water		
		Calcium
		Lithium
		Metal hydrides
		Potassium
		SO ₂ Cl ₂ , SOCl ₂ , PCl ₃ , CH ₂ S, Cl ₂
	Other water-reactive waste	
Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.		
Group 4-A	Group 4-B	
Alcohols	Concentrated Group 1-A or 1-B wastes	
Aldehydes		
Halogenated hydrocarbons		
Nitrated hydrocarbons		
Unsaturated hydrocarbons		
Other reactive organic compounds and solvents	Group 2-A wastes	
Potential consequences: Fire, explosion, or violent reaction.		
Group 5-A	Group 5-B	
Spent cyanide and sulfide solutions	Group 1-B wastes	
Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.		
Group 6-A	Group 6-B	

Chlorates	Acetic acid and other organic acids
Chlorine	Concentrated mineral acids
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hypochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Perranganates	
Peroxides	
Other strong oxidizers	
Potential consequences: Fire, explosion, or violent reaction	

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:340. Appendix on Compounds with Henry's Law Constant less than 0.1 Y/X (Interim Status).

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 265 Appendix VI
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520, 40 C.F.R. 265 Appendix VI

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in the storage, treatment, and disposal of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all facilities and the postclosure monitoring and maintenance of hazardous waste disposal facilities. ~~[This chapter establishes minimum standards for hazardous waste sites or facilities qualifying for interim status.]~~ This administrative regulation establishes requirements for ~~[relates to]~~ compounds with Henry's Law constants less than 0.1 Y/X ~~[X/Y]~~.

Section 1. Compounds with Henry's Law Constant Less than 0.1 Y/X. The subject matter shall be governed by 40 C.F.R. 265 Appendix VI, effective July 1, 2005.

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 11, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049, email Bruce.Scott@ky.gov.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 35:350. Hazardous waste munitions and explosives storage (Interim Status) [(#S)].

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 224.50-130(3), 40 C.F.R. 265 Subpart EE
 STATUTORY AUTHORITY: KRS [Chapter] 224.10-100, 224.46-510, 40 C.F.R. 265 Subpart EE

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.50-130 requires the Environmental and Public Protection Cabinet

to consider the criteria while making a determination to issue, deny, or condition a permit for any person desiring a permit to construct or operate a hazardous-waste site or facility for treatment or disposal of any of the chemical munitions. This administrative regulation establishes requirements for hazardous waste munitions and explosives storage. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 265 Subpart EE, except the compounds listed in 401 KAR 31.040, Section 7, shall [will] be subject to the requirements of 401 KAR 34:180.

Section 1. Applicability. The requirements of this section shall apply to owners or operators who store munitions and explosive hazardous wastes, except for munitions or explosive hazardous wastes that contain the substances specified in 401 KAR 31:040, Section 7. Owners or operators who store munitions or explosive hazardous wastes that contain the substances specified in 401 KAR 31:040, Section 7, shall be [are] subject to the requirements of 401 KAR 34:180.

Section 2. Design and Operating Standards. The subject matter shall be governed by 40 C.F.R. 264.1201, effective July 1, 2005.

Section 3. Closure and Post-closure Care. The subject matter shall be governed by 40 C.F.R. 264.1202, effective July 1, 2005. 401 KAR 35:350 approved for filing.

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 11, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049, email Bruce.Scott@ky.gov.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 36:005. Definitions for [related to] 401 KAR Chapter 36.

RELATES TO: KRS Subchapters 224.01, 224.10, 40 C.F.R. 260.10

STATUTORY AUTHORITY: KRS 224.10-100, 40 C.F.R. 260.10

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(30) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. ~~[This chapter implements provisions of KRS 224.46-520 and 224.46-530.]~~ This administrative regulation defines essential terms that are used in 401 KAR Chapter 36 ~~[this chapter]~~. ~~[The majority of terms defined in this administrative regulation are equivalent to federal terms contained in 40 C.F.R. Parts 260 through 290.]~~ Some terms have been modified ~~[clarified to eliminate federal ambiguities and]~~ to conform to Kentucky statutory mandates. Definitions contained in KRS Chapter 224 have been referenced to the appropriate statutory citation. Some terms do not have a federal counterpart and ~~[These terms]~~ have been added to clarify requirements and provisions of KRS Chapter 224 and 401 KAR Chapter 36 ~~[this chapter]~~.

Section 1 Definitions. Except as provided in this section, the definitions established in 40 C.F.R. 260.10, effective September 9, 2005, shall apply. ~~[The subject matter shall be governed by 40 C.F.R. 260.10, effective September 9, 2005. The following modifications, exceptions, and additions set forth in this section shall amend 40 C.F.R. 260.10.]~~

(1) "Administrator", "agency", "assistant administrator", "regional administrator", "director", or "regional director" means cabinet as defined in KRS 224.01-010(9).

(2) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

- (3) "Cabinet" is defined by KRS 224 01-010(9).
- (4) "Closure" is defined by KRS 224 01-010(4).
- (5) "Disposal" is defined by KRS 224 01-010(10).
- (6) "Environmental Protection Agency" or "EPA" means the Kentucky Department for Environmental Protection except if [when] used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".
- (7) "Federal Register" means the "Administrative Register of Kentucky" as described in KRS 13A 050[, for those areas applicable and delegable to the state].
- (8) "Generator" is defined by KRS 224 01-010(13).
- (9) "Hazardous waste" is defined by KRS 224.01-010(31)(b).
- (6) "Manifest" is defined by KRS 224.01-010(37).
- (10) "Permit" means the authorization or other control document that:
 - (a) is issued by the cabinet to implement the requirements of the waste management administrative regulations;
 - (b) [~~The term permit~~] includes permit-by-rule, registered permit-by-rule, research, development, and demonstration permit, and emergency permit; and (c) [~~However, the term permit~~] does not include draft permit or proposed permit.
- (11) "Person" is defined by KRS 224 01-010(17).
- (12) "Publicly owned treatment works" or "POTW" is defined by KRS 224 01-010(19).
- (13) "Recyclable materials" means hazardous wastes that are recycled.
- (14) "Recycling" is defined by KRS 224 01-010(22).
- (15) "Solid waste" is [means "waste" as] defined by KRS 224.01-010(31)(a).
- (16) "Storage" is defined by KRS 224 01-010(28).
- (17) "Transfer facility" is defined by KRS 224 01-010(48).
- (18) "Transportation" is defined by KRS 224 01-010(29).
- (19) "Treatment" is defined by KRS 224 01-010(30).
- (20) "United States" means the Commonwealth of Kentucky.
- (21) "Used oil" is defined by KRS 224.50-545(2)(a).
- (22) "Water" [~~Waters~~] or "Waters of the Commonwealth" is defined by KRS 224 01-010(33).

Section 2. Substitution of Federal References. (1) The following federal parts and subparts, which are cited by federal regulations referenced in 401 KAR Chapter 36, shall be substituted with the state administrative regulations listed below

Federal Regulation	State Regulation
40 C F R Part 260	401 KAR Chapter 30
40 C F R 260 Subpart A	401 KAR 30 020
40 C.F.R. 260 Subpart B	401 KAR 30 005, 401 KAR 31:005, 401 KAR 32 005, 401 KAR 33 005, 401 KAR 34 005, 401 KAR 35:005, 401 KAR 36 005, 401 KAR 37 005, 401 KAR 38 005, 401 KAR 43 005, 401 KAR 44:005, and 401 KAR 30 020
40 C F R. 260 Subpart C	401 KAR 30 035
40 C F R Part 261	401 KAR Chapter 31
40 C F R 261 Subpart A	401 KAR 31 010
40 C F R 261 Subpart B	401 KAR 31 020
40 C F R 261 Subpart C	401 KAR 31 030
40 C F R 261 Subpart D	401 KAR 31 040
40 C F R Part 262	401 KAR Chapter 32
40 C F R 262 Subpart A	401 KAR 32 010
40 C F R 262 Subpart B	401 KAR 32 020
40 C F R 262 Subpart C	401 KAR 32 030
40 C F R 262 Subpart D	401 KAR 32 040
40 C F R 262 Subpart E	401 KAR 32 050, Sections 1-9
40 C F R 262 Subpart F	401 KAR 32 050, Section 10
40 C F R 262 Subpart G	401 KAR 32 060
40 C F R 262 Subpart H	401 KAR 32 065
40 C F R Part 263	401 KAR Chapter 33
40 C F R 263 Subpart A	401 KAR 33 010
40 C F R 263 Subpart B	401 KAR 33 020
40 C F R 263 Subpart C	401 KAR 33 030

40 C F R Part 264	401 KAR Chapter 34
40 C F R 264 Subpart A	401 KAR 34 010
40 C F R 264 Subpart B	401 KAR 34 020
40 C F R 264 Subpart C	401 KAR 34 030
40 C F R 264 Subpart D	401 KAR 34 040
40 C F R 264 Subpart E	401 KAR 34 050
40 C F R 264 Subpart F	401 KAR 34 060
40 C F R 264 Subpart G	401 KAR 34 070
40 C F R. 264 Subpart H	401 KAR 34 080, 401 KAR 34:090, 401 KAR 34:100, 401 KAR 34:110, 401 KAR 34:120, 401 KAR 34:130
40 C F R 264 Subpart I	401 KAR 34 180
40 C F R 264 Subpart J	401 KAR 34 190
40 C F R. 264 Subpart K	401 KAR 34 200
40 C F R 264 Subpart L	401 KAR 34 210
40 C F R 264 Subpart M	401 KAR 34 220
40 C F R 264 Subpart N	401 KAR 34 230
40 C F R 264 Subpart O	401 KAR 34 240
40 C F R 264 Subpart S	401 KAR 34 287
40 C F R. 264 Subpart W	401 KAR 34 285
40 C F R. 264 Subpart X	401 KAR 34 250
40 C F R. 264 Subpart AA	401 KAR 34 275
40 C F R 264 Subpart BB	401 KAR 34 280
40 C.F.R. 264 Subpart CC	401 KAR 34 281
40 C.F.R. 264 Subpart DD	401 KAR 34 245
40 C.F.R. 264 Subpart EE	401 KAR 34 370
40 C F R Part 265	401 KAR Chapter 35
40 C F R 265 Subpart A	401 KAR 35 010
40 C F R 265 Subpart B	401 KAR 35 020
40 C F R 265 Subpart C	401 KAR 35 030
40 C F R. 265 Subpart D	401 KAR 35 040
40 C F R 265 Subpart E	401 KAR 35 050
40 C F R 265 Subpart F	401 KAR 35 060
40 C F R 265 Subpart G	401 KAR 35 070
40 C.F.R. 265 Subpart H	401 KAR 35 080, 401 KAR 35:090, 401 KAR 35:100, 401 KAR 35:110, 401 KAR 35:120, 401 KAR 35:130
40 C F R 265 Subpart I	401 KAR 35 180
40 C F R 265 Subpart J	401 KAR 35 190
40 C F R 265 Subpart K	401 KAR 35 200
40 C F R 265 Subpart L	401 KAR 35 210
40 C F R 265 Subpart M	401 KAR 35 220
40 C F R. 265 Subpart N	401 KAR 35 230
40 C F R 265 Subpart O	401 KAR 35 240
40 C F R 265 Subpart P	401 KAR 35 250
40 C F R 265 Subpart Q	401 KAR 35 260
40 C F R 265 Subpart R	401 KAR 35 270
40 C F R. 265 Subpart W	401 KAR 35 285
40 C F R. 265 Subpart AA	401 KAR 35 275
40 C F R. 265 Subpart BB	401 KAR 35 280
40 C F R 265 Subpart CC	401 KAR 35 281
40 C F R 265 Subpart DD	401 KAR 35 245
40 C F R 265 Subpart EE	401 KAR 35 350
40 C F R Part 266	401 KAR Chapter 36
40 C F R 266 Subpart C	401 KAR 36 030
40 C F R 266 Subpart F	401 KAR 36 060
40 C F R 266 Subpart G	401 KAR 36 070
40 C F R. 266 Subpart H	401 KAR 36 020
40 C F R. 266 Subpart M	401 KAR 36 080
40 C F R 266 Subpart N	401 KAR 36 090
40 C F R Part 268	401 KAR Chapter 37

VOLUME 33, NUMBER 12 – JUNE 1, 2007

40 C.F.R. 268 Subpart A	401 KAR 37-010
40 C.F.R. 268 Subpart B	401 KAR 37-020
40 C.F.R. 268 Subpart C	401 KAR 37-030
40 C.F.R. 268 Subpart D	401 KAR 37-040
40 C.F.R. 268 Subpart E	401 KAR 37-050
40 C.F.R. Part 270	401 KAR Chapter 38
40 C.F.R. 270 Subpart A	401 KAR 38-010
40 C.F.R. 270 Subpart B	401 KAR 38-070, 401 KAR 38-080, 401 KAR 38-090, 401 KAR 38-150 through 401 KAR 38-310
40 C.F.R. 270 Subpart C	401 KAR 38-030
40 C.F.R. 270 Subpart D	401 KAR 38:040, Sections 1 through 4, 7
40 C.F.R. 270 Subpart E	401 KAR 38-040, Sections 5 and 6
40 C.F.R. 270 Subpart F	401 KAR 38-060
40 C.F.R. 270 Subpart G	401 KAR 38-020
40 C.F.R. 270 Subpart H	401 KAR 38-320
40 C.F.R. 270 Subpart I	401 KAR 38-330
[40 C.F.R. 270 Subpart J]	[401 KAR 38-340]
40 C.F.R. Part 124	401 KAR 38-050
40 C.F.R. Part 273	401 KAR Chapter 43
40 C.F.R. 273 Subpart A	401 KAR 43-010
40 C.F.R. 273 Subpart B	401 KAR 43-020
40 C.F.R. 273 Subpart C	401 KAR 43-030
40 C.F.R. 273 Subpart D	401 KAR 43-040
40 C.F.R. 273 Subpart E	401 KAR 43-050
40 C.F.R. 273 Subpart F	401 KAR 43:060[43-070]
40 C.F.R. 273 Subpart G	401 KAR 43:070[43-080]
40 C.F.R. Part 279	401 KAR Chapter 44
40 C.F.R. 279 Subpart A	401 KAR 44-005
40 C.F.R. 279 Subpart B	401 KAR 44-010
40 C.F.R. 279 Subpart C	401 KAR 44-020
40 C.F.R. 279 Subpart D	401 KAR 44-030
40 C.F.R. 279 Subpart E	401 KAR 44-040
40 C.F.R. 279 Subpart F	401 KAR 44-050
40 C.F.R. 279 Subpart G	401 KAR 44-060
40 C.F.R. 279 Subpart H	401 KAR 44-070
40 C.F.R. 279 Subpart I	401 KAR 44-080

(2) The requirements of the following federal regulations, which are referenced in 401 KAR Chapter 36, shall include the modifications, exceptions, and additions that are specific to the Commonwealth of Kentucky set forth in the following state administrative regulations referenced in the table below

Federal Regulation	State Regulation
40 C.F.R. 260.10	401 KAR 30-005, 401 KAR 31-005, 401 KAR 32-005, 401 KAR 33-005, 401 KAR 34-005, 401 KAR 35-005, 401 KAR 36-005, 401 KAR 37-005, 401 KAR 38-005, 401 KAR 43-005, 401 KAR 44:005, and 401 KAR 30-020
40 C.F.R. 261.4	401 KAR 31-010, Section 4
40 C.F.R. 264.143	401 KAR 34-080
40 C.F.R. 264.1082	401 KAR 34-281, Section 2
40 C.F.R. 266.205	401 KAR 36-080, Section 6
40 C.F.R. 270.1	401 KAR 38-010, Section 1
40 C.F.R. 270.61	401 KAR 38-060, Section 2

(3) The following federal regulations, which are cited by the federal regulations referenced in 401 KAR Chapter 36, shall be replaced with the state administrative regulations as identified in the table below

Federal Regulation	State Regulation
40 C.F.R. Part 60 Appendix A	401 KAR 59-020
[40 C.F.R. Part 124]	[401 KAR 38-050]
40 C.F.R. Part 257	401 KAR Chapter 47
40 C.F.R. Part 258	401 KAR Chapter 48
40 C.F.R. 264.18	401 KAR 34-020, Section 9
40 C.F.R. 264.75	401 KAR 34-050, Section 6

40 C.F.R. 264.101	401 KAR 34-060, Section 12
40 C.F.R. 264.140	401 KAR 34-080, Section 2
40 C.F.R. 264.141	401 KAR 34-080, Section 1 [3]
40 C.F.R. 264.142	401 KAR 34-090, Section 1
40 C.F.R. 264.143	401 KAR 34-090, Sections 2 through 12
40 C.F.R. 264.144	401 KAR 34-100, Section 1
40 C.F.R. 264.145	401 KAR 34-100, Sections 2 through 12
40 C.F.R. 264.146	401 KAR 34-110
40 C.F.R. 264.147	401 KAR 34-120
40 C.F.R. 264.148	401 KAR 34-130
40 C.F.R. 265.140	401 KAR 35-080, Section 2
40 C.F.R. 265.141	401 KAR 35-080, Section 1
40 C.F.R. 265.142	401 KAR 35-090, Section 1
40 C.F.R. 265.143	401 KAR 35-090, Sections 2 through 11
40 C.F.R. 265.144	401 KAR 35-100, Section 1
40 C.F.R. 265.145	401 KAR 35-100, Sections 2 through 11
40 C.F.R. 265.146	401 KAR 35-110
40 C.F.R. 265.147	401 KAR 35-120
40 C.F.R. 265.148	401 KAR 35-130
40 C.F.R. 266.106	401 KAR 36-020, Section 8
40 C.F.R. 266 Appendix I, Table I-D	401 KAR 36-025, Section 1(2)(a)
40 C.F.R. 266 Appendix I, Table I-E	401 KAR 36-025, Section 1(2)(b)
40 C.F.R. 266 Appendix V	401 KAR 36-025, Section 5
40 C.F.R. 270.51	401 KAR 38-040, Section 6
40 C.F.R. Part 280	401 KAR Chapter 42

[Section 1 Definitions Unless otherwise specifically defined in KRS Chapter 224 or otherwise specifically indicated by context, terms in 401 KAR Chapter 36 shall have the meanings given in this section:

(1) "100-year floodplain" means any land area which is subject to a one (1) percent or greater chance of flooding in any given year from any source.

(2) "100-year flood" means a flood that has a one (1) percent chance of being equaled or exceeded in any given year.

(3) "Aboveground tank" means a device meeting the definition of "tank" and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

(4) "Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

(5) "Accumulated speculatively" means that a material is accumulated before being recycled.

(a) A material is not accumulated speculatively, if the person accumulating it can show:

1. That the material is potentially recyclable and has a feasible means of being recycled, and

2. That during the calendar year (commencing on January 1) the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five (75) percent by weight or volume of the amount of that material accumulated at the beginning of the calendar year (including any material accumulated from previous years).

(b) In calculating the percentage of turnover, the seventy-five (75) percent requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units that would be exempt from administrative regulation under Section 4(3) of 401 KAR 31-010 are not to be included in making the calculation (Materials that are already defined as wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling.

(6) "Active fault" means a land area which, according to the weight of geological evidence, has a reasonable probability of being affected by movement along a fault to the extent that a waste site or facility would be damaged and thereby pose a threat to human health and the environment.

(7) "Active life" of a facility means the period from the initial receipt of waste at a waste site or facility until the cabinet receives certification of final closure.

(8) "Active portion" means any area of a facility where treatment, storage, or disposal operations are being or have been conducted and which have not been closed. It includes the treated area of a landfill and the active face of a landfill. Covered, closed, or inactive portions of landfills, building roofs, and roads are excluded unless designated as "active portions" by the cabinet.

(9) "Admixed liner" means a liner made from a mixture of any of a multitude of materials, often asphalt or cement, with widely varying physical and chemical properties. Admixed liners shall be demonstrated to be structurally sound and chemically resistant to the waste placed in it so as to be capable of supporting the waste without cracking or disintegrating or allowing waste or leachate to escape.

(10) "Agricultural waste" means any nonhazardous waste resulting from the production and processing of on the farm agricultural products, including manures, prunings and crop residues.

(11) "Air stripping operation" is a desorption operation employed to transfer one (1) or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(12) "Ampule" means a small sealed glass container for one (1) dose of sterile medicine.

(13) "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to hazardous waste management units including tanks between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal off site.

(14) "Application" means the form approved by the cabinet for applying for a permit, including any additions, revisions or modifications and any narrative and drawings required by 401 KAR Chapters 30 to 49. The term includes: Part A of the application (Part A); Part B of the application (Part B); notice of intent; administration application; special waste application; or technical application.

(15) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(16) "As received waste" refers to the waste as received in the shipment from the generator or sample collector.

(17) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

(18) "Attenuation" means any decrease in the maximum concentration or total quantity of an applied chemical or biological constituent in a fixed time or distance traveled resulting from a physical, chemical, or biological reaction or transformation occurring in the zone of aeration or zone of saturation.

(19) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit or part of a facility, such as the plant manager, superintendent, or person of equivalent responsibility.

(20) "Average volatile organic concentration" or "average VOC concentration" means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Section 4 of 401 KAR 35.281.

(21) "Base flood" means a flood that has a one (1) percent or greater chance of recurring in any year, or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

(22) "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to

allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(23) "Board" shall have the meaning specified in KRS 224.46-810.

(24) "Bodily injury" shall have the meaning given by applicable Kentucky statutes. Bodily injury does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for bodily injury.

(25) "Boiler" means an enclosed device using control flame combustion and having the following characteristics:

(a)1. The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

2. The unit's combustion chamber and primary energy recovery section(s) shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section (such as water walls and superheaters) shall be physically formed into one (1) manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section are joined only by ducts or connections carrying flue gas is not integrally designed, however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream) and fluidized bed combustion units; and

3. While in operation, the unit shall maintain a thermal energy recovery efficiency of at least sixty (60) percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

4. The unit shall export and utilize at least seventy-five (75) percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(b) The unit is one (1) which the cabinet has determined, on a case-by-case basis, to be a boiler, after considering the standards in 401 KAR 30.080.

(26) "Bottoms receiver" means a container or tank used to receive and collect heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(27) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

(28) "By-product" is a material that is not one (1) of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(29) "Cabinet" shall have the meaning specified in KRS 224.01-010.

(30) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(31) "Cation exchange capacity" means the sum of exchangeable cations a soil can absorb expressed in milliequivalents per 100 grams of soil as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the summation method for distinctly acid soils or the sodium acetate method for neutral, calcareous, or saline soils.

(32) "Certificate" shall have the meaning specified in KRS 224.46-810.

(33) "Certification" means a statement of professional opinion based upon knowledge and belief.

(34) "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements.

(35) "Closed vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(36) "Closure plan" means the plan for closure prepared in

accordance with the requirements of Section 3 of 401 KAR 34-070 or Section 3 of 401 KAR 35-070.

(37) "Closure" shall have the meaning specified in KRS 224.01-010.

(38) "Component" means either the tank or ancillary equipment of a tank system.

(39) "Condenser" means a heat transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(40) "Conditionally exempt small quantity generator" means:

(a) A generator who generates no more than 100 kilograms of hazardous waste in a calendar month; or

(b) A generator who generates acutely hazardous waste listed in Sections 2, 3, and 4(5) of 401 KAR 31-040 in a calendar month in quantities no greater than one (1) kilogram. All quantities of that acutely hazardous waste are subject to administrative regulation under 401 KAR Chapters 32 through 39, and the notification and permitting requirements of KRS 224.01-400, 224.40-310, 224.46-510, 224.46-580, and 224.50-130 to 224.50-413.

(41) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

(42) "Connector" means flanged, screwed, welded, or other joined fitting used to connect two (2) pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(43) "Consignee" means the ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste is sent.

(44) "Constituent" shall have the same meaning as "hazardous waste constituent."

(45) "Container" means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves (for example, tank trucks, tanker trailers, and rail tank cars), and containers placed on or in a transport vehicle.

(46) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 401 KAR 34-245 or 35-245.

(47) "Contaminate" means introduce a substance that would cause:

(a) The concentration of that substance in the groundwater to exceed the maximum contaminant level specified in 401 KAR 30-031, Sections 5 and 6 of 401 KAR 47-030, or Section 8 of 401 KAR 34-060;

(b) An increase in the concentration of that substance in the groundwater where the existing concentration of that substance exceeds the maximum contaminant level specified in 401 KAR 30-031, 401 KAR 47-030, or Section 8 of 401 KAR 34-060; or

(c) A significant increase above established background levels, for substances that do not have an established maximum contamination level.

(48) "Contamination" means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

(49) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or release of waste or waste constituents into the environment which has the potential for endangering human health and the environment. Financial planning to identify resources for initiation of such action is a part of contingency plan development.

(50) "Continuous recorder" means a data recording device recording an instantaneous data value at least once every 15 minutes.

(51) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(52) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (for example, a primary condenser on a solvent recovery unit) is not a control device.

(53) "Corrective action management unit" or "CAMU" means

an area within a facility that is designated by the cabinet under 401 KAR 34-287, for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34-060 and KRS 224.46-520. A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(54) "Cover" means a device or system which is placed on or over a hazardous waste such that the entire hazardous waste surface area is enclosed and sealed to reduce air emissions to the atmosphere. A cover may have openings such as access hatches, sampling ports, and gauge wells that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is installed provided that each opening is closed and sealed when not in use. Examples of covers include a fixed roof installed on a tank, a floating membrane cover installed on a surface impoundment, a lid installed on a drum, and an enclosure in which an open container is placed during waste treatment.

(55) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(56) "Current closure cost estimates" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34-090 or Section 1(1), (2) and (3) of 401 KAR 35-090.

(57) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(58) "Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 40 C.F.R. 144.62(a), (b), and (c).

(59) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34-100 or Section 1(1), (2) and (3) of 401 KAR 35-100.

(60) "Debris" means solid material exceeding a 60mm particle size that is intended for disposal and that is a manufactured object, plant or animal matter, or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in 401 KAR 37-040, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section 6 of 401 KAR 37-040 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(61) "Designated facility" means a hazardous waste treatment, storage, or disposal facility which:

(a) Has received a hazardous waste site or facility permit (or a facility with interim status) in accordance with the requirements of 401 KAR Chapter 38;

(b) Has received a permit from a state authorized in accordance with 40 C.F.R. Part 271, and EPA permit (or a facility with interim status) in accordance with 40 C.F.R. Parts 270 and 124; or

(c) Is regulated under Section 6(3)(b) of 401 KAR 31-010 or 401 KAR Chapter 36, 40 C.F.R., 261.6(c)(2) or 40 C.F.R. Part 266; and

(d) That has been designated on the manifest by the generator pursuant to Section 1 of 401 KAR 32-020 if a waste is destined to a hazardous waste site or facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept that waste.

(62) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Section 4(1) and (3) of 401 KAR 43-020 and Section 4(1) and (3) of 401 KAR 43-030. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(63) "Destruction or adverse modification" means an alteration

of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(64) "Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

(65) "Direct transfer equipment" means any device (including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (for example, transport vehicle) and a boiler or industrial furnace.

(66) "Disposal" shall have the meaning specified in KRS 224.01-010.

(67) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(68) "Distillate receiver" means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(69) "Distillation operation" means an operation, either batch or continuous, separating one (1) or more feed stream(s) into two (2) or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(70) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(71) "Double block and bleed system" means two (2) block valves connected in series with a bleed valve or line that can vent the line between the two (2) block valves.

(72) "Draft permit" shall have the same meaning as "proposed permit".

(73) "Drip pad" means an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kick back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(74) "Effluent Limitations" shall have the same meaning as KRS 224.01-010.

(75) "Elementary neutralization unit" means a device which:

(a) is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section 3 of 401 KAR 31.030, or they are listed in 401 KAR 31.040 only for this reason; and

(b) meets the definition of tank, tank system, container, transport vehicle, or vessel in this section.

(76) "Emergency permit" means a permit issued by the cabinet to temporarily store, treat or dispose of hazardous waste in accordance with the provisions of Section 2 of 401 KAR 38.060, to temporarily manage, process, or dispose of a solid waste in accordance with the provisions of Section 2 of 401 KAR 47.150 or to temporarily store, treat, or dispose of special waste in accordance with the provisions of Section 1 of 401 KAR 45.135.

(77) "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Endangered Species Act, as amended, 16 U.S.C. 1536.

(78) "Engineer" shall have the meaning specified in KRS 322.010. An independent, professional engineer shall be registered in Kentucky pursuant to KRS 322.040 and shall be qualified to engage in waste management engineering practices.

(79) "EPA acknowledgment of consent" means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

(80) "EPA hazardous waste number" means the number assigned by EPA and the cabinet to each hazardous waste listed in 401 KAR 31.040, and to each characteristic identified in 401 KAR 31.030.

(81) "EPA identification number" means the number assigned

by EPA or the cabinet to each generator, transporter, or treatment, storage, or disposal facility.

(82) "Ephemeral stream" means a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and which has a channel bottom that is always above the local water table.

(83) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by 401 KAR 34.275.

(84) "Equivalent method" means any testing or analytical method, approved jointly by the administrator and the secretary under 401 KAR Chapter 31, or methods in 401 KAR Chapters 47 and 48, approved by the secretary of the cabinet.

(85) "Existing" indicates a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning, or processing hazardous waste or for which construction (including the ancillary facilities to burn or to process the hazardous waste) has commenced.

(86) "Existing component" shall have the same meaning as "existing tank system".

(87) "Existing facility" shall have the same meaning as "existing hazardous waste site or facility".

(88) "Existing hazardous waste site or facility" means a hazardous waste facility which was in operation, or for which continuous construction had commenced, on or before November 19, 1980. A facility has commenced construction if:

(a) The owner or operator had obtained the federal, state and local approvals or permits necessary to begin physical construction; and

(b) Either:

1. A continuous on-site, physical construction program has begun; or

2. The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(89) "Existing portion" means that land surface area of an existing hazardous waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(90) "Existing tank system" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(a) A continuous on-site physical construction or installation program has begun; or

(b) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(91) "External floating roof" means a pontoon or double-deck type floating roof that rests on the surface of a hazardous waste being managed in a tank that has no fixed roof.

(92) "Face amount" means the total amount the insurer is obligated to pay under the policy.

(93) "Facility" means:

(a) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one (1) or more landfills, surface impoundments, or combinations of them).

(b) For the purpose of implementing corrective action under Section 12 of 401 KAR 34.060, all contiguous property under the control of the owner or operator seeking a hazardous waste permit. This definition also applies to facilities implementing corrective action under KRS 224.46-520.

(94) "Facility mailing list" means the mailing list for a facility maintained in accordance with Section 7(3)(a)4c of 401 KAR 39.050.

(95) "Federal agency" means any department, agency, or other

instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the United States Government Printing Office.

(96) "Federal, state, and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, administrative regulations, or ordinances.

(97) "Final closure" of a hazardous waste site or facility means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 401 KAR Chapters 34 and 35 are no longer conducted at the facility unless subject to the provisions in Section 5 of 401 KAR 32.030.

(98) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(99) "Fiscal year" means a twelve (12) month period for accounting and other financial purposes.

(100) "Fixed roof" means a rigid cover that is installed in a stationary position so that it does not move with fluctuations in the level of the hazardous waste placed in a tank.

(101) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(102) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

(103) "Floating roof" means a pontoon type or double deck type cover that rests upon and is supported by the hazardous waste being managed in a tank, and is equipped with a closure seal or seals to close the space between the cover edge and the tank wall.

(104) "Flood plain" means areas adjoining inland waters which are inundated by the base flood, unless otherwise specified in 401 KAR 30.031 or 401 KAR 47.030, and includes 100-year floodplain and floodway.

(105) "Floodway" means the channel of the waterway, stream or river and that portion of the adjoining floodplain which provides for passage of the 100-year flood flow without increasing the floodwater depth across the 100-year floodplain by more than one (1) foot.

(106) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(107) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(108) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(109) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(110) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

(111) "Generator" shall have the meaning specified in KRS 224.01-010.

(112) "Governing body" shall have the same meaning as KRS 224.01-010.

(113) "Groundwater" means the subsurface water occurring in the zone of saturation beneath the water table, and perched water zones below the B soil horizon, including water circulating through fractures, bedding planes, and solution conduits.

(114) "Groundwater table" means the upper boundary of the saturated zone in which the hydrostatic pressure of the groundwater is equal to the atmospheric pressure.

(115) "Halogenated organic compounds" or "HOCs" means those compounds having a carbon halogen bond that are listed under 401 KAR 37.110.

(116) "Hazardous constituent" shall have the meaning specified in KRS 224.01-010.

(117) "Hazardous debris" means debris that contains a haz-

ardous waste listed in 401 KAR 31.040 or that exhibits a characteristic of hazardous waste identified in 401 KAR 31.030.

(118) "Hazardous waste" shall have the meaning specified in KRS 224.01-010.

(119) "Hazardous waste constituent" means a constituent which caused the cabinet to list the hazardous waste in 401 KAR 31.040, or a constituent listed in Section 5(3) of 401 KAR 31.030.

(120) "Hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(121) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit, the unit includes containers and the land or pad upon which they are placed. Hazardous waste management units include: aboveground tank; component; existing tank system or existing component; in-ground tank; new tank system or new tank component; on-ground tank; tank system; underground tank; or unfit-for-use tank system.

(122) "Hazardous waste management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than twenty-four (24) hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(123) "Hazardous waste site or facility" means any place at which hazardous waste is treated, stored, or disposed of by landfilling, incineration, or any other method. Hazardous waste site or facility includes boiler, disposal facility, elementary neutralization unit, incinerator, industrial furnace, hazardous waste transfer facility, injection well, landfill, land treatment facility, miscellaneous unit, pile or waste pile, replacement unit, storage facility, sludge dryer, surface impoundment, tank, thermal treatment facility, totally enclosed treatment facility, treatment facility, or wastewater treatment unit.

(124) "Hazardous waste transfer facility" means any transportation related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(125) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene to the present.

(126) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum jet or steam jet ejector.

(127) "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(128) "In existence" shall have the same meaning as "existing."

(129) "In gas service" means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(130) "In heavy liquid service" means that the piece of equipment is not in gas service or in vapor service or in light liquid service.

(131) "In light liquid service" means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one (1) or more of the components in the stream is greater than three-tenths (0.3) kilopascals (kPa) at twenty (20) degrees Centigrade, the total concentration of the pure components having a vapor pressure greater than three-tenths (0.3) kPa at twenty (20) degrees Centigrade is equal to or greater than twenty (20) percent by weight, and the fluid is a liquid at operating conditions.

(132) "In operation" refers to a facility which is treating, storing,

or disposing of hazardous waste;

(133) "In situ sampling systems" means nonextractive samplers or in-line samplers;

(134) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure;

(135) "In vapor service" shall have the same meaning as "in gas service";

(136) "In ground tank" means a device meeting the definition of "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground;

(137) "Inactive portion" means that portion of a hazardous waste site or facility which was not operated after November 10, 1980;

(138) "Incinerator" means any enclosed device that:

(a) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(b) Meets the definition of infrared incinerator or plasma arc incinerator;

(139) "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device or facility because it may cause corrosion or decay of containment materials, or unsuitable for commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic ducts, mists, fumes, or gases, or flammable fumes or gases;

(140) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards;

(141) "Individual generation site" means the contiguous site at or on which one (1) or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one (1) or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous;

(142) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(a) Cement kilns;

(b) Lime kilns;

(c) Aggregate kilns;

(d) Phosphate kilns;

(e) Coke ovens;

(f) Blast furnaces;

(g) Smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);

(h) Titanium dioxide chloride process oxidation reactors;

(i) Methane reforming furnaces;

(j) Pulping liquor recovery furnaces;

(k) Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(l) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least three (3) percent, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of twenty (20) percent as generated; or

(m) Other devices as the cabinet may, after notice and comment, add to this list on the basis of criteria and Section 5 of 401 KAR 30.080.

(143) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace;

(144) "Injection well" means a well into which fluids are injected to achieve subsurface emplacement;

(145) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials

of the tank or container from the contained hazardous waste or reagents used to treat the hazardous waste;

(146) "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of a hazardous waste management unit including tank systems;

(147) "Interim status" means the designation of a hazardous waste site or facility which was in existence on November 10, 1980, and has submitted a Part A application under 401 KAR Chapter 38 or under 40 C.F.R. Part 270 and is treated as having a permit until final administrative disposition of the application is made;

(148) "Intermittent stream" means a stream or reach of stream that drains a watershed of one (1) square mile or more but does not flow continuously during the calendar year;

(149) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States;

(150) "Internal floating roof" means a floating roof that rests or floats on the surface (but not necessarily in complete contact with it) of a hazardous waste being managed in a tank that has a fixed roof;

(151) "Karst terrain" means a type of topography where limestone, dolomite or gypsum is present and is characterized by naturally occurring closed topographic depressions or sinkholes, caves, disrupted surface drainage, and well developed underground solution channels formed by dissolution of these rocks by water moving underground;

(152) "Key personnel" shall have the meaning specified in KRS 224.01-010;

(153) "Lab pack" means any large container equal to or smaller than fifty-five (55) gallons that holds many smaller containers of various content tightly secured with packing material;

(154) "Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infrared (IR) regions of the electromagnetic spectrum. Examples of common lamps include, but is not limited to, incandescent, fluorescent, high pressure sodium, mercury vapor, metal halide, high intensity discharge, and neon lamps;

(155) "Land disposal" shall have the meaning specified in KRS 224.01-010;

(156) "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface. These facilities are disposal facilities if the waste will remain after closure;

(157) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit;

(158) "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits;

(159) "Large quantity handler of universal waste" means a universal waste handler who accumulates 5,000 kilograms or more total universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated;

(160) "Leachate" means any liquid including any suspended components in the liquid, that has percolated through or drained from waste;

(161) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment system or the presence of a release of hazardous waste, hazardous waste constituents or accumulated liquid in the secondary containment system. Such a system shall employ operational controls (daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automati-

ally the failure of the primary or secondary containment system or the presence of a release of hazardous waste constituents or accumulated liquids into the secondary containment system;

(162) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy;

(163) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events;

(164) "Liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility;

(165) "Liquid mounted seal" means a foam or liquid filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank;

(166) "Local government" means the fiscal court of the county, urban county government, or governing body of an incorporated municipality wherein a hazardous waste landfill or other site or facility for the land disposal of hazardous waste is proposed;

(167) "Major modification" means for hazardous waste sites or facilities, a change in ownership where the cabinet determines that other changes in the permit are necessary as a result of the change in ownership or operational control, area occupied, disposal method, or other significant change in the operation of a waste site or facility (Note: Minor modifications are described in Section 2 of 401 KAR 38:040);

(168) "Malfunction" means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased;

(169) "Manifest" shall have the meaning specified in KRS 224.01-010;

(170) "Manifest document number" means the EPA twelve (12) digit identification number assigned to the generator plus a unique, generally increasing, five (5) digit document number assigned to the manifest by the generator for recordkeeping and reporting purposes;

(171) "Maximum organic vapor pressure" means the equilibrium partial pressure exerted by the hazardous waste contained in a tank determined at the temperature equal to either:

(a) The local maximum monthly average temperature as reported by the National Weather Service when the hazardous waste is stored or treated at ambient temperature; or

(b) The highest calendar month average temperature of the hazardous waste when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature;

(172) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine;

(173) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of, and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 C.F.R. Part 146, containment building, corrective action management unit, or unit eligible for a research, development, and demonstration permit under Section 6 of 401 KAR 38:060;

(174) "Monitoring" means the act of systematically inspecting and collecting data on operational parameters or on the quality of the air, soil, groundwater, or surface water;

(175) "Monitoring well" means a well used to obtain water samples for water quality and quantity analysis and groundwater levels;

(176) "Movement" means that hazardous waste transported to

a facility in an individual vehicle;

(177) "Net working capital" means current assets minus current liabilities;

(178) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity;

(179) "New facility" means any hazardous waste site or facility that commenced construction after November 19, 1980;

(180) "New tank component" shall have the same meaning as "new tank system";

(181) "New tank system" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation commenced after July 14, 1986; however, for purposes of Section 4(7)(b) of 401 KAR 34:190 and Section 4(7)(b) of 401 KAR 35:190, a new tank system is one for which construction commenced after July 14, 1986;

(182) "No detectable organic emissions" means no escape of organics from a device or system to the atmosphere as determined by an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal when measured in accordance with the requirements of Method 21 in 40 C.F.R. Part 60, Appendix A, and by no visible openings or defects in the device or system such as rips, tears, or gaps;

(183) "Nonsudden accidental occurrence" means an occurrence that takes place over time and involves continuous or repeated exposure;

(184) "Nonwastewater" means wastes that do not meet the criteria for wastewaters found in the definition for wastewaters;

(185) "Not detected" means at or below the lower method calibration limit (MCL) in SW 846, Method 8200, Table 1;

(186) "Off site" means properties noncontiguous to the site;

(187) "On site" means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property;

(188) "Onground tank" means a device meeting the definition of tank that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected;

(189) "Open burning" means the combustion of any material or solid waste without:

(a) Control of combustion air to maintain adequate temperature for efficient combustion;

(b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) Control of emission of the gaseous combustion products;

(190) "Open ended valve or line" means any valve, except pressure relief valves, having one (1) side of the valve seat in contact with process fluid and one (1) side open to the atmosphere, either directly or through open piping;

(191) "Operational plan" means the approved plan of operations filed with the cabinet which describes the method of operation that the permittee will use in the treatment, storage, or disposal of wastes;

(192) "Operator" means any person responsible for overall operation of an on-site or off-site waste facility, including any private contractor conducting operational activities at a federal facility;

(193) "Other site or facility for the land disposal of hazardous waste" means a disposal facility but shall not include a storage facility or a treatment facility;

(194) "Owner" means any person who owns an on-site or off-site waste facility, or any part of a facility;

(195) "Parent corporation" means a corporation which directly owns at least fifty (50) percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation;

(196) "Part A of the application" or "Part A" means the standard forms or format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:080;

(197) "Part B of the application" or "Part B" means the stan-

standard format for applying for a hazardous waste site or facility permit as required in 401 KAR 38.090 to 401 KAR 38.210.

(198) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 401 KAR Chapters 34 and 35 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(199) "Perennial stream" means a stream or that part of a stream that flows continuously during all of the calendar year as a result of groundwater discharge or surface run-off. The term does not include "intermittent stream" or "ephemeral stream".

(200) "Permit" means the authorization or other control document issued by the cabinet to implement the requirements of the waste management administrative regulations. The term permit includes permit by rule, registered permit by rule, research, development, and demonstration permit, and emergency permit. However, the term permit does not include draft permit or proposed permit.

(201) "Permit by rule" means authorization allowing certain classes of sites or facilities to manage waste consistent with 401 KAR Chapters 30 to 49, without submission of a registration or permit application to the cabinet. Examples of hazardous waste sites or facilities which are permitted by rule include facilities operating under an interim status permit and facilities identified in Section 1 of 401 KAR 38.060.

(202) "Permittee" means any person holding a valid permit issued by the cabinet to manage, treat, store, or dispose of waste.

(203) "Person" shall have the meaning specified in KRS 224.01-010.

(204) "Personnel" or "facility personnel" means all persons who work at or oversee the operations of a waste facility, and whose actions or failure to act may result in noncompliance with the requirements of the waste management administrative regulations.

(205) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(a) is a new animal drug under FFDCFA section 201(w), or

(b) is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(c) is an animal feed under FFDCFA section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this subsection.

(206) "Pile" or "waste pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

(207) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(208) "Point of compliance" means for hazardous waste site and facilities, groundwater monitoring wells located within 250 feet of the waste boundary as approved by the cabinet.

(209) "Point of waste origination" means as follows:

(a) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as identified in 401 KAR Chapter 31.

(b) When the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

(210) "Point of waste treatment" means the point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste.

(211) "Point source" means any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling

stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(212) "Pollutant" shall have the same meaning as KRS 224.01-010.

(213) "Polychlorinated biphenyls" or "PCB" means halogenated organic compounds defined in accordance with 40 C.F.R. 761.2 as of July 1989.

(214) "Postclosure care" means the manner in which a facility shall be maintained when it no longer accepts waste for disposal.

(215) "Postclosure monitoring and maintenance" shall have the meaning specified in KRS 224.01-010.

(216) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of Sections 8 to 11 of 401 KAR 34.070 or Sections 8 to 11 of 401 KAR 35.070.

(217) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(218) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Section 1 of 401 KAR 32.020 which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(219) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(220) "Process vent" means any open ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations.

(221) "Property damage" shall have the meaning given by applicable Kentucky statutes. Property damage does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for property damage.

(222) "Proposed permit" means a document prepared by the cabinet indicating the cabinet's tentative decision to issue or deny, modify, revoke or terminate a permit.

(223) "Publicly owned treatment works" or "POTW" shall have the meaning specified in KRS 224.01-010.

(224) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the based on pump activation level, pump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(225) "Qualified groundwater scientist" means a geologist registered in Kentucky who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields to enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

(226) "Receiving country" means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short term storage incidental to transportation).

(227) "Recharge zone" means an area supplying the water which enters an underground drinking water source.

(228) "Reclaimed" means a material that is processed to recover a usable product, or that is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(229) "Recovered material" shall have the meaning specified in KRS 224.01-010.

(230) "Recyclable materials" means hazardous wastes that are recycled.

(231) "Recycled" means a material that is used, reused, or reclaimed.

(232) "Recycling" shall have the meaning specified in KRS 224.01-010.

(233) "Regional integrated waste treatment and disposal demonstration facility" shall have the meaning specified in KRS 224.01-

010-

(234) "Regulated unit" means hazardous waste land disposal sites or facilities, or portions of existing hazardous waste land disposal sites or facilities that continued to receive waste after January 26, 1993.

(235) "Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34-060 and KRS 224-46-520. For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing KRS 224-46-520 for releases beyond the facility boundary.

(236) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(237) "Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or approved corrective action.

(238) "Representative sample" means a sample of a universe or whole (for example, waste pile, lagoon, or groundwater) which can be expected to exhibit the average properties of the universe or whole.

(239) "Research, development, and demonstration permit" means a permit issued by the cabinet for a hazardous waste treatment facility that utilizes an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 401 KAR Chapters 34 through 36.

(240) "Resource recovery" means the recovery of material or energy from waste.

(241) "Run-off" means any rainwater, leachate, or other liquid that drains overland from any part of a facility.

(242) "Run-on" means any rainwater, leachate, or other liquid that drains overland onto any part of a facility.

(243) "Saturated zone" shall have the same meaning as "zone of saturation".

(244) "Schedule of compliance" means a schedule of remedial measures included in a permit or cabinet order, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with KRS Chapter 224 and 401 KAR Chapters 30 to 49.

(245) "Scrap metal" is bits and pieces of metal parts (for example, bars, turnings, rods, sheets, or wire) or metal pieces that may be combined together with bolts or soldering (for example, radiators, scrap automobiles, or railroad boxcars), which when worn or superfluous can be recycled.

(246) "Secretary" shall have the meaning specified in KRS 224-01-010.

(247) "Sensor" means a device that measures a physical quantity or the change in a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(248) "Separator tank" means a device used for separation of two immiscible liquids.

(249) "Sewage system" shall have the meaning specified in KRS 224-01-010.

(250) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the waste facility or activity.

(251) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant or any other waste having similar characteristics and effects.

(252) "Sludge dryer" means any enclosed thermal treatment

device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet-weight basis.

(253) "Small quantity generator" means a generator who generates more than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month.

(254) "Small quantity handler of universal waste" means a universal waste handler who does not accumulate more than 5,000 kilograms of universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time.

(255) "Solid waste management unit" shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

(256) "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two (2) being mutually insoluble) to preferentially dissolve and transfer one (1) or more components into the solvent.

(257) "Sorb" means to either adsorb, absorb, or both.

(258) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(259) "Spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(260) "Spill" means any accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

(261) "Start up" means the setting in operation of a hazardous waste management unit or control device for any purpose.

(262) "State" means any of the fifty (50) states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Northern Mariana Islands or Guam but does not include any foreign country.

(263) "Steam stripping operation" means a distillation operation in which vaporization of a volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(264) "Storage" shall have the meaning specified in KRS 224-01-010.

(265) "Storage facility" means a facility or part of a facility at which hazardous waste is held for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere. A generator who accumulates his own hazardous wastes in an approved manner for less than ninety (90) days for subsequent transport on site or off site is not operating or maintaining a storage facility.

(266) "Storage of hazardous waste" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(267) "Substantial business relationship" means the extent of a business relationship necessary to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the cabinet.

(268) "Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

(269) "Sump" means any pit or reservoir that meets the definition of tank, and these troughs and trenches connected to it, that serves to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities, except that as used in the landfill, surface impoundment, and waste pile administrative regulations, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(270) "Surface impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold

an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(271) "Surge control tank" means a large sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(272) "Tangible net worth" means the tangible assets that remain after deducting liabilities, these assets would not include intangibles such as goodwill and rights to patents or royalties.

(273) "Tank" means a stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonferrous materials (for example, wood, concrete, steel, or plastic) which provide structural support and which does not meet the definition of any other unit.

(274) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(275) "Termination" shall have the meaning specified in KRS 224.01-010.

(276) "The full amount of the liability coverage to be provided" means the amount of coverage for sudden and nonsudden occurrences required to be provided by the owner or operator, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(277) "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge (see also "incinerator" and "open burning").

(278) "Thermal treatment facility" means a facility or part of a facility which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

(279) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Section 4(3)(b) of 401 KAR 43-020 or Section 4(3)(b) of 401 KAR 43-030.

(280) "Thin film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(281) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which acid is neutralized.

(282) "Transit country" means any foreign country, other than a receiving country, through which a hazardous waste is transported.

(283) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body is a separate transport vehicle.

(284) "Transportation" shall have the meaning specified in KRS 224.01-010.

(285) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(286) "Treatability study" means:

- (a) A study in which a hazardous waste is subjected to a treatment process to determine:
 - 1- Whether the waste is amenable to the treatment process;
 - 2- What pretreatment, if any, is required;
 - 3- The optimal process conditions needed to achieve the desired treatment;
 - 4- The efficiency of a treatment process for a specific waste or

wastes; or

5- The characteristics and volumes of residuals from a particular treatment process.

(b) For the purpose of 401 KAR 31-010, Section 4(5) and (6), exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(c) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(287) "Treatment" shall have the meaning specified in KRS 224.01-010.

(288) "Treatment facility" means a facility or part of a facility using any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous or less hazardous, safer to transport, store, or dispose of, or amenable for recovery, amenable for storage, or reduced in volume.

(289) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized;

(290) "Underground drinking water source" means:

(a) An aquifer supplying drinking water for human consumption; or

(b) An aquifer in which the groundwater contains less than 10,000 mg/l total dissolved solids.

(291) "UIC well" means an underground injection control well as provided in 40 C.F.R. Part 144.

(292) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well").

(293) "Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

(294) "Underlying hazardous constituent" means any constituent listed in Section 1 of 401 KAR 37-040, Table Treatment Standards for Hazardous Wastes, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent specific treatment standards.

(295) "Unfit for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(296) "Universal waste" means any of the following hazardous wastes that are subject to the universal waste requirements of 401 KAR Chapter 43:

- (a) Batteries as described in Section 2 of 401 KAR 43-010;
- (b) Pesticides as described in Section 3 of 401 KAR 43-010;
- (c) Thermostats as described in Section 4 of 401 KAR 43-010,

and

- (d) Spent lamps as described in Section 5 of 401 KAR 43-010.

(297) "Universal waste handler":

(a) Means:

- 1- A generator of universal waste; or
- 2- The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination;

(b) Does not mean:

- 1- A person who treats (except under the provisions of Sections 4(1) or (3) of 401 KAR 43-020 or Sections 4(1) or (3) of 401 KAR 43-030), disposes of, or recycles universal waste; or
- 2- A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(298) "Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

(200) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(300) "Unsaturated zone" shall have the same meaning as "Zone of aeration".

(301) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(302) "Used oil" shall have the same meaning as KRS 224.50-546.

(303) "Used or reused" means a material that is either:

(a) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one (1) process used as feedstock in another process). However, a material shall not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(b) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(304) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(305) "Vapor recovery system" means that equipment, device, or apparatus capable of collecting vapors and gases discharged from a storage tank, and a vapor processing system capable of affecting such vapors and gases so as to prevent their emission into the atmosphere.

(306) "Vapor mounted seal" means a foam-filled primary seal mounted continuously around the circumference of the tank so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.

(307) "Vented" means discharged through an opening, typically an open ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (work losses) or by natural means such as diurnal temperature changes.

(308) "Vessel" means any watercraft used or capable of being used as a means of transportation on the water.

(309) "Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement using Method 25D or by knowledge of the waste in accordance with the requirements of Section 4 of 401 KAR 35-281.

(310) "Washout" means the carrying away of waste by waters as a result of flooding.

(311) "Waste" shall have the meaning specified in KRS 224.01-010.

(312) "Waste boundary" means the outermost perimeter of the waste (projected in the horizontal plane) as it would exist at completion of the disposal activity.

(313) "Waste determination" means performing all applicable procedures in accordance with the requirements of Section 4 of 401 KAR 35-281 to determine whether a hazardous waste meets standards specified in 401 KAR Chapter 35. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 4 of 401 KAR 35-281 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; determining the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to

the applicable standards.

(314) "Waste pile" shall have the same meaning as "pile".

(315) "Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30-010). A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification."

(316) "Wastewaters" means wastes that contain less than one (1) percent by weight total organic carbon (TOC) and less than one (1) percent by weight total suspended solids (TSS), with the following exceptions:

(a) F001, F002, F003, F004, F005, wastewaters are solvent-water mixtures that contain less than one (1) percent by weight TOC or less than one (1) percent by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 1 of 401 KAR 37-040 in Table Treatment Standards for Hazardous Waste;

(b) K011, K013, K014 wastewaters contain less than five (5) percent by weight TOC and less than one (1) percent by weight TSS, as generated; and

(c) K103 and K104 wastewaters contain less than four (4) percent by weight TOC and less than one (1) percent by weight TSS.

(317) "Wastewater treatment unit" means a device that:

(a) Is part of a wastewater treatment facility that is subject to administrative regulation under either section 402 or 307(b) of the GWA;

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 401 KAR 31-010, Section 3, or generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 401 KAR 31-010, Section 3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section 3 of 401 KAR 31-010; and

(c) Meets the definition of tank or tank system in this administrative regulation.

(318) "Water" or "waters of the Commonwealth" shall have the meaning specified in KRS 224.01-010.

(319) "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

(320) "Well" means any shaft or pit dug or bored into the earth, generally of cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(321) "Wetlands" means land that has a predominance of hydric soils and is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

(322) "Zone of aeration" means that region of the soil or rock between the land surface and the nearest saturated zone in which the interstices are occupied partially by air.

(323) "Zone of engineering control" means an area under the control of the owner or operator that upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to waters of the Commonwealth.

(324) "Zone of saturation" means that part of the earth's crust containing groundwater in which all voids, large and small, are filled with liquid.

Section 2 – Acronyms and Abbreviations – Unless otherwise specifically indicated by context, acronyms and abbreviations used in 401 KAR Chapter 31 shall have the meaning as identified in Table 1 of this administrative regulation.

Am-	Amended
C	Corrosive waste
CAA	Clean Air Act, as amended
C.F.R.	Code of Federal Regulations

cm	Centimeter
cm ²	Centimeter squared
CO	Carbon monoxide
CO ₂	Carbon dioxide
CWA	Clean Water Act, as amended
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DOT	United States Department of Transportation
DRE	Destruction and removal efficiency
E	Explosive waste
eff	Effective
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIA	Federal Insurance Administration
FR	Federal Register
H	Acutely hazardous waste
ha	Hectare
HTMR	High temperature metals recovery
HSWA	Hazardous and Solid Waste Amendments of 1994
I	Ignitable waste
KAR	Kentucky Administrative Regulation
kg	Kilogram
KPDES	Kentucky Pollution Discharge Elimination System
KRS	Kentucky Revised Statute
Ky R.	Administrative Register of Kentucky
l	Liter
LC	Lethal concentration
LD	Lethal dose
ml	Milliliter
mm	Millimeter
N	Normal
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant and Discharge Elimination System
PCB	Polychlorinated biphenyl
pCi/l	Picocuries per liter
PHC	Principal hazardous constituent
Permit	Permitted principal organic hazardous constituent
POHC	Principal organic hazardous constituent
PM	Particulate matter
ppm	parts per million
Tnal-POHC	Tnal burn principal organic hazardous constituent
POTW	Publicly owned treatment works
PSD	Prevention of significant deterioration
psi	Pounds per square inch
psig	Pounds per square inch gauge
R	Reactive waste
RCRA	Resource Conservation and Recovery Act, as amended
SDWA	Safe Drinking Water Act, as amended
SEC	Securities and Exchange Commission
SIC	Standard Industrial Classification Code
SPCC	Spill Prevention, Control, and Countermeasures Plan
T	Toxic waste
UIC	Underground Injection Control
UICP	Underground Injection Control Program
U.S.C.	United States Code
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USPS	United States Postal Service

CONTACT PERSON: R. Bruce Scott, P.E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 36:020. Hazardous waste burned in boilers and industrial furnaces.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266 Subpart H

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40~~ C.F.R. 266 Subpart H]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations of permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation [implements] [to implement] [provisions of KRS 224.46-520 and] establishes [to establish] standards for persons who burn hazardous waste in boilers and industrial furnaces. [This administrative regulation is equivalent to the corresponding federal regulations except the text of the federal regulations referenced in this administrative regulation includes dates that occurred before the effective date of the incorporation of those requirements into this administrative regulation. Such dates shall not be construed as creating a retroactive right or obligation under the Kentucky Hazardous Waste Regulations when that right or obligation did not exist in this regulation prior to the date the federal regulations were referenced. If a right or obligation existed under federal regulations based on a date in federal regulations and there is a period from the date cited in the incorporated text until the date they initially took effect in this administrative regulation, nothing in this administrative regulation shall contravene or countermand the legal application of the federal regulation for that period.] This administrative regulation is equivalent to the corresponding federal regulations, except Kentucky has more stringent requirements than those established in 401 KAR 36:025 are an order of magnitude more stringent due to the Kentucky risk-specific doses being based on 10-6 rather than 10-5. [This administrative regulation supersedes and replaces 401 KAR 36:040, Hazardous waste burned for energy recovery.]

Section 1. Definitions (1) "DRE" means destruction and removal efficiency.

(2) "Environmental Protection Agency" or "EPA" means, as referenced in 40 C.F.R. 266.103(b)(6)(viii) and 266.103(b)(6)(x), the federal Environmental Protection Agency. ["Environmental Protection Agency" or "EPA" means:

- (a) The federal Environmental Protection Agency in the federal references of 40 C.F.R. 266.103(b)(6)(viii) and 266.103(b)(6)(x), or
- (b) in all other instances referenced in this administrative regulation, the Kentucky Department for Environmental Protection except when used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".]

Section 2 Applicability (1) The subject matter shall be governed by 40 C.F.R. 266.100, effective July 1, 2005.

(2) The reference in 40 C.F.R. 266.100(b)(2)(iv) to 40 C.F.R. 266.112 is incorrect. The reference shall [should] be to 40 C.F.R. 266.112.

Section 3 Management Prior to Burning. The subject matter shall be governed by 40 C.F.R. 266.101, effective July 1, 2005.

Section 4. Permit Standards for Burners. The subject matter shall be governed by 40 C.F.R. 266.102, effective July 1, 2005.

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: January 3, 2007 at 2 p.m.

Section 5 Interim Status Standards for Burners The subject matter shall be governed by 40 C.F.R. 266.103, effective July 1, 2005.

Section 6 Standards to Control Organic Emissions The subject matter shall be governed by 40 C.F.R. 266.104, effective July 1, 2005.

Section 7 Standards to Control Particulate Matter The subject matter shall be governed by 40 C.F.R. 266.105, effective July 1, 2005.

Section 8 Standards to Control Metals Emissions The subject matter shall be governed by 40 C.F.R. 266.106, effective July 1, 2005.

Section 9 Standards to Control Hydrogen Chloride and Chlorine Gas Emissions The subject matter shall be governed by 40 C.F.R. 266.107, effective July 1, 2005.

Section 10 Small Quantity On-Site Burner Exemption The subject matter shall be governed by 40 C.F.R. 266.108, effective July 1, 2005.

Section 11 Low Risk Waste Exemption The subject matter shall be governed by 40 C.F.R. 266.109, effective July 1, 2005.

Section 12 Waiver of DRE Trial Burn for Boilers The subject matter shall be governed by 40 C.F.R. 266.110, effective July 1, 2005.

Section 13 Standards for Direct Transfer The subject matter shall be governed by 40 C.F.R. 266.111, effective July 1, 2005.

Section 14 Regulation of Residues The subject matter shall be governed by 40 C.F.R. 266.112, effective July 1, 2005.

Section 15. Effective Dates. (1) Dates Included In the federal regulations referenced in this administrative regulation that occurred before the effective date of this administrative regulation shall not be construed as creating a retroactive right or obligation under the Kentucky hazardous waste administrative regulations if that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced.

(2) If a right or obligation existed under federal regulations based on a date in federal regulations, and there is a period from the date cited in the text until the date the requirements initially became effective in this administrative regulation, this administrative regulation shall not contravene or countermand the legal application of the federal regulation for that period.

[Section 1. Applicability (1) This administrative regulation applies to hazardous waste burned or processed in a boiler or industrial furnace irrespective of the purpose of burning or processing, except as provided by subsections (2), (3), (4), and (6) of this section. The emissions standards of Sections 5 to 8 of this administrative regulation apply to hazardous waste sites or facilities operating under interim status or under a RCRA operating permit as specified in Sections 3 and 4 of this administrative regulation.

(2) The following hazardous wastes and facilities are not subject to this administrative regulation:

(a) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in 401 KAR 31.030. Such used oil is subject to 401 KAR Chapter 44 rather than this administrative regulation;

(b) Gas recovered from hazardous or solid waste landfills when such gas is burned for energy recovery;

(c) Hazardous wastes that are exempt from administrative regulation under Section 4 and 6(1)(e) of 401 KAR 31.010, and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under Section 5 of 401 KAR 31.010; and

(d) Coke ovens, if the only hazardous waste burned is EPA

Hazardous Waste No. K087, decenter tank tar sludge from cooling operations.

(3) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste) that process hazardous waste solely for metal recovery are conditionally exempt from regulation under this administrative regulation, except for Sections 2 and 13 of this administrative regulation.

(a) To be exempt from Sections 3 to 12 of this administrative regulation, an owner or operator of a metal recovery furnace or mercury recovery furnace, shall comply with the following requirements, except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall comply with the requirements of paragraph (c) of this subsection:

1. Provide a one (1) time written notice to the cabinet indicating the following:

a. The owner or operator claims exemption under this subsection;

b. The hazardous waste is burned solely for metal recovery consistent with the provisions of paragraph (b) of this subsection;

c. The hazardous waste contains recoverable levels of metals; and

d. The owner or operator shall comply with the sampling and analysis and recordkeeping requirements of this administrative regulation;

2. Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of this paragraph under procedures specified by test methods for evaluating solid waste, physical/chemical methods, SW-846 (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010), or alternative methods that meet or exceed the SW-846 method performance capabilities. If SW-846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method; and

3. Maintain at the facility for at least three (3) years records to document compliance with the provisions of this subsection including limits on levels of toxic organic constituents and Btu value of the waste, and levels of recoverable metals in the hazardous waste compared to normal nonhazardous waste feedstocks.

(b) A hazardous waste meeting either of the following criteria is not processed solely for metal recovery:

1. The hazardous waste has a total concentration of organic compounds listed in 401 KAR 31.170 exceeding 500 ppm by weight, as fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as generated may be reduced to the 500 ppm limit by authentic treatment that removes or destroys organic constituents. Blending for dilution to meet the 500 ppm limit is prohibited, and documentation that the waste has not been impermissibly diluted shall be retained in the records required by paragraph (a)2 of this subsection; or

2. The hazardous waste has a heating value of 5,000 Btu/lb or more, as fired, and so is considered to be burned as fuel. The heating value of a waste as generated may be reduced to below the 5,000 Btu/lb limit by authentic treatment that removes or destroys organic constituents. Blending for dilution to meet the 5,000 Btu/lb limit is prohibited, and documentation that the waste has not been impermissibly diluted shall be retained in the records required by paragraph (a)3 of this subsection.

(c) To be exempt from Sections 3 through 12 of this administrative regulation, an owner or operator of a lead or nickel-chromium or mercury recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall provide a one (1) time written notice to the cabinet identifying each hazardous waste burned and specifying whether the owner or operator claims an exemption for each waste under this paragraph or paragraph (a) of this subsection. The owner or operator shall comply with the requirements of paragraph (a) of this subsection for those wastes claimed to be exempt under that paragraph and shall comply with the requirements of this paragraph for those wastes claimed to be exempt

under this paragraph.

1. The hazardous wastes listed in Sections 9, 10, and 12 of 401 KAR 36.025, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of paragraph (a) of this subsection provided that:

a. A waste listed in Section 9 of 401 KAR 36.025 shall contain recoverable levels of lead, a waste listed in Section 10 of 401 KAR 36.025 shall contain recoverable levels of nickel or chromium, a waste listed in Section 12 of 401 KAR 36.025 shall contain recoverable levels of mercury and contain less than 500 ppm of organic constituents identified in 401 KAR 31.170, and baghouse bags used to capture metallic dusts emitted by steel manufacturing shall contain recoverable levels of metal; and

b. The waste does not exhibit the toxicity characteristic of Section 5 of 401 KAR 31.030 for an organic constituent; and

c. The waste is not a hazardous waste listed in 401 KAR 31.040 because it is listed for an organic constituent as identified in 401 KAR 31.160; and

d. The owner or operator certifies in the one (1) time notice that hazardous waste is burned under the provisions of this paragraph and that sampling and analysis will be conducted or other information will be obtained as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to paragraph (a)2 of this subsection and records to document compliance with this paragraph shall be kept for at least three (3) years.

2. The cabinet may decide on a case-by-case basis that the toxic organic constituents in a material listed in Sections 9, 10, or 12 of 401 KAR 36.025 that contains a total concentration of more than 500 ppm toxic organic compounds listed in 401 KAR 31.170, may pose a hazard to human health and the environment when burned in a metal recovery furnace exempt from the requirements of this administrative regulation. In that situation, after adequate notice and opportunity for comment, the metal recovery furnace shall become subject to the requirements of this administrative regulation when burning that material. In making the hazard determination, the cabinet shall consider the following factors:

a. The concentration and toxicity of organic constituents in the material; and

b. The level of destruction of toxic organic constituents provided by the furnace; and

c. Whether the acceptable ambient levels established in Section 4 or 5 of 401 KAR 36.025 may be exceeded for any toxic organic compound that may be emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.

(4) The standards for direct transfer operations under Section 12 of this administrative regulation apply only to facilities subject to the permit standards of Section 3 of this administrative regulation or the interim status standards of Section 4 of this administrative regulation.

(5) The management standards for residues under Section 13 of this administrative regulation apply to any boiler or industrial furnace burning hazardous waste.

(6) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces) that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under this administrative regulation, except for Section 13 of this administrative regulation. To be exempt from Sections 2 through 12 of this administrative regulation, an owner or operator shall:

(a) Provide a one (1) time written notice to the cabinet indicating the following:

1. The owner or operator claims exemption under this paragraph; and

2. The hazardous waste is burned for legitimate recovery of precious metal; and

3. The owner or operator will comply with the sampling and analysis and recordkeeping requirements of this subsection; and

(b) Sample and analyze the hazardous waste as necessary to document that the waste is burned for recovery of economically

significant amounts of precious metal using procedures specified by test methods for evaluating solid waste, physical/chemical methods, SW-846, or alternative methods that meet or exceed the SW-846 method performance capabilities. If SW-846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method; and

(c) Maintain at the facility for at least three (3) years records to document that all hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.

Section 2. Management Prior to Burning. (1) Generators. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to 401 KAR Chapter 32.

(2) Transporters. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to 401 KAR Chapter 33.

(3) Storage facilities.

(a) Owners and operators of facilities that store hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of 401 KAR Chapters 34, 35, and 38, except as provided by paragraph (b) of this subsection. These standards apply to storage by the burner as well as to storage facilities operated by intermediaries (for example, processors, blenders, and distributors) between the generator and the burner.

(b) Owners and operators of facilities that burn, in an on-site boiler or industrial furnace exempt from regulation under the small quantity burner provisions of Section 9 of this administrative regulation, hazardous waste that they generate are exempt from regulation under 401 KAR Chapters 34, 35 and 38 applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as proscribed in paragraph (a) of this subsection.

Section 3. Permit Standards for Burners. (1) Applicability.

(a) General. Owners and operators of boilers and industrial furnaces burning hazardous waste and not operating under interim status shall comply with the requirements of this section, Section 7 of 401 KAR 38.060, and 401 KAR 38.270, unless exempt under the small quantity burner exemption of Section 9 of this administrative regulation.

(b) Applicability of 401 KAR Chapter 34 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following provisions of 401 KAR Chapter 34, except as provided otherwise by this paragraph:

1. Section 3 of 401 KAR 34.010; and

2. Sections 2 to 9 of 401 KAR 34.020; and

3. Sections 2 to 7 of 401 KAR 34.030; and

4. Sections 2 to 7 of 401 KAR 34.040; and

5. Sections 2 to 8 of 401 KAR 34.050; and

6. 401 KAR 34.060; and

7. Sections 2 to 6 of 401 KAR 34.070; and

8. 401 KAR 34.080, 401 KAR 34.090, and 401 KAR 34.110 to 401 KAR 34.130, except that states and the federal government are exempt from the requirements of 401 KAR 34.080, and 9. 401 KAR 34.280, except for Section 2(1).

(2) Hazardous waste analysis.

(a) The owner or operator shall provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in 401 KAR 31.170 that may reasonably be expected to be in the waste. These constituents shall be identified and quantified if present, at levels detectable by analytical procedures prescribed by test methods for evaluating solid waste, physical/chemical methods. Alternative methods that meet or exceed the method performance capabilities of SW-846 methods may be used. If SW-846 does not prescribe a method for a particular determination, the owner or operator shall use the best available method. The 401 KAR 31.170 constituents excluded from this analysis shall be identified and the basis for their exclusion explained. This analysis shall be used to provide all information required by this administrative regulation, and Section 7 of 401 KAR 38.060, and 401 KAR 38.270 and to enable the permit writer to prescribe such permit conditions as necessary to protect human

health and the environment. This analysis shall be included as a portion of the Part B permit application, or, for facilities operating under the interim status standards of this administrative regulation, as a portion of the trial burn plan that may be submitted before the Part B application under provisions of Section 7(7) of 401 KAR 38.060 as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards shall provide the information required by Section 7(3) of 401 KAR 38.060 or 401 KAR 38.270 in the Part B application to the greatest extent possible.

(b) Throughout normal operation, the owner or operator shall conduct sampling and analysis as necessary to ensure that the hazardous waste, other fuels, and industrial furnace feedstocks fired into the boiler or industrial furnace are within the physical and chemical composition limits specified in the permit.

(3) Emissions standards. Owners and operators shall comply with emissions standards provided by Sections 5 to 8 of this administrative regulation.

(4) Permits.

(a) The owner or operator may burn only hazardous wastes specified in the facility permit and only under the operating conditions specified under subsection (5)(e) of this section, except in approved trial burns under the conditions specified in Section 7 of 401 KAR 38.060.

(b) Hazardous wastes not specified in the permit may not be burned until operating conditions have been specified under a new permit or permit modification, as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with Part B of a permit application under 401 KAR 38.270.

(c) Boilers and industrial furnaces operating under the interim status standards of Section 4 of this administrative regulation are permitted under procedures provided by Section 7(7) of 401 KAR 38.060.

(d) A permit for a new boiler or industrial furnace (those boilers and industrial furnaces not operating under the interim status standards) shall establish appropriate conditions for each of the applicable requirements of this section, including but not limited to, allowable hazardous waste firing rates and operating conditions necessary to meet the requirements of subsection (5) of this section, in order to comply with the following standards:

1. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements shall be those most likely to ensure compliance with the emission standards of Sections 5 to 8 of this administrative regulation, based on the cabinet's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial period of operation shall include those specified by the applicable provisions of Sections 5, 6, 7, or 8 of this administrative regulation. The cabinet may extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

2. For the duration of the trial burn, the operating requirements shall be sufficient to demonstrate compliance with the emissions standards of Sections 5 to 8 of this administrative regulation and shall be in accordance with the approved trial burn plan;

3. For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results and modification of the facility permit by the cabinet to reflect the trial burn results, the operating requirements shall be those most likely to ensure compliance with the emission standards Sections 5 to 8 of this administrative regulation based on the cabinet's engineering judgment.

4. For the remaining duration of the permit, the operating requirements shall be those demonstrated in a trial burn or by alternative data specified in 401 KAR 38.270, as sufficient to ensure compliance with the emissions standards of Sections 5 to 8 of this administrative regulation.

(5) Operating requirements.

(a) General. A boiler or industrial furnace burning hazardous waste shall be operated in accordance with the operating requirements specified in the permit at all times where there is hazardous waste in the unit.

(b) Requirements to ensure compliance with the organic emissions standards.

1. DRE standards. Operating conditions shall be specified either on a case-by-case basis for each hazardous waste burned as those demonstrated (in a trial burn or by alternative data as specified in 401 KAR 38.270) to be sufficient to comply with the destruction and removal efficiency (DRE) performance standard of Section 5(1) of this administrative regulation or as those special operating requirements provided by Section 5(1)(d) of this administrative regulation for the waiver of the DRE trial burn. When the DRE trial burn is not waived under Section 5(1)(d) of this administrative regulation, each set of operating requirements shall specify the composition of the hazardous waste (including acceptable variations in the physical and chemical properties of the hazardous waste which shall not affect compliance with the DRE performance standard) to which the operating requirements apply. For each such hazardous waste, the permit shall specify acceptable operating limits including, but not limited to, the following conditions as appropriate:

a. Feed rate of hazardous waste and other fuels measured and specified as prescribed in paragraph (f) of this subsection;

b. Minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (f) of this subsection;

c. Appropriate controls of the hazardous waste firing system;

d. Allowable variation in boiler and industrial furnace system design or operating procedures;

e. Minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured and specified as prescribed in paragraph (f) of this subsection;

f. An appropriate indicator of combustion gas velocity, measured and specified as prescribed in paragraph (f) of this subsection, unless documentation is provided under Section 7 of 401 KAR 38.060 demonstrating adequate combustion gas residence time; and

g. Such other operating requirements as are necessary to ensure that the DRE performance standard of Section 5(1) of this administrative regulation is met.

2. Carbon monoxide and hydrocarbon standard. The permit shall incorporate a carbon monoxide (CO) limit and, as appropriate, a hydrocarbon (HC) limit as provided by Section 5(2), (3), (4), (5), and (16) of this administrative regulation. The permit limits shall be specified as follows:

a. When complying with the CO standard of Section 5(2)(a) of this administrative regulation, the permit limit is 100 ppmv;

b. When complying with the alternative CO standard under Section 5(3) of this administrative regulation, the permit limit for CO is based on the trial burn and is established as the average over all valid runs of the highest hourly rolling average CO level of each run, and the permit limit for HC is twenty (20) ppmv (as defined in Section 5(3)(a) of this administrative regulation), except as provided in Section 5(6) of this administrative regulation.

c. When complying with the alternative HC limit for industrial furnaces under Section 5(6) of this administrative regulation, the permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by that Section 5(6) of this administrative regulation.

3. Start-up and shut-down. During start-up and shut-down of the boiler or industrial furnace, hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine, and except low risk waste exempt from the trial burn requirements under Sections 5(1)(e), 6, 7, and 8 of this administrative regulation) shall not be fed into the device unless the device is operating within the conditions of operation specified in the permit.

(c) Requirements to ensure conformance with the particulate standard.

1. Except as provided in subparagraphs 2 and 3 of this paragraph, the permit shall specify the following operating requirements

to ensure conformance with the particulate standard specified in Section 6 of this administrative regulation:

- a. Total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in paragraph (f) of this subsection;
- b. Maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in paragraph (f) of this subsection;
- c. Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;
- d. Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and
- e. Any other operating requirements that are necessary to ensure that the particulate standard in Section 6(1) of this administrative regulation is met.

2. Permit conditions to ensure conformance with the particulate matter standard shall not be provided for facilities exempt from the particulate matter standard under Section 6(2) of this administrative regulation;

3. For cement kilns and light-weight aggregate kilns, permit conditions to ensure compliance with the particulate standard shall not limit the ash content of hazardous waste or other feed materials.

(d) Requirements to ensure conformance with the metals emissions standard.

1. For conformance with the Tier I (or adjusted Tier I) metals feed rate screening limits of Section 7(2) or (5) of this administrative regulation, the permit shall specify the following operating requirements:

a. Total feed rate of each metal in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified under provisions of paragraph (f) of this subsection;

b. Total feed rate of hazardous waste measured and specified as prescribed in paragraph (f) of this subsection; and

c. A sampling and metals analysis program for the hazardous waste, other fuels, and industrial furnace feedstocks.

2. For conformance with the Tier II metals emission rate screening limits under Section 7(3) of this administrative regulation and the Tier III metals controls under Section 7(4) of this administrative regulation, the permit shall specify the following operating requirements:

a. Maximum emission rate for each metal specified as the average emission rate during the trial burn;

b. Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in paragraph (f) of this subsection; and

c. Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraph (f) of this subsection:

(i) Total feed streams;

(ii) Total hazardous waste feed; and

(iii) Total pumpable hazardous waste feed;

d. Total feed rate of chlorine and chloride in total feed streams measured and specified as prescribed in paragraph (f) of this subsection;

e. Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (f) of this subsection;

f. Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (f) of this subsection;

g. Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (f) of this subsection;

h. Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

i. Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

j. Such other operating requirements as are necessary to ensure that the metals standards under Section 7(3) or (4) of this administrative regulation are met.

3. For conformance with an alternative implementation ap-

proach approved by the cabinet under Section 7(6) of this administrative regulation, the permit shall specify the following operating requirements:

a. Maximum emission rate for each metal specified as the average emission rate during the trial burn;

b. Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in paragraph (f) of this subsection;

c. Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraph (f) of this subsection:

(i) Total hazardous waste feed; and

(ii) Total pumpable hazardous waste feed;

d. Total feed rate of chlorine and chloride in total feed streams measured and specified as prescribed in paragraph (f) of this subsection;

e. Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (f) of this subsection;

f. Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (f) of this subsection;

g. Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (f) of this subsection;

h. Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

i. Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

j. Such other operating requirements as are necessary to ensure that the metals standards under Section 7(3) or (4) of this administrative regulation are met.

(e) Requirements to ensure conformance with the hydrogen chloride and chlorine gas standards.

1. For conformance with the Tier I total chloride and chlorine feed rate screening limits of Section 8(2)(a) of this administrative regulation, the permit shall specify the following operating requirements:

a. Feed rate of total chloride and chlorine in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified as prescribed in paragraph (f) of this subsection;

b. Feed rate of total hazardous waste measured and specified as prescribed in paragraph (f) of this subsection; and

c. A sampling and analysis program for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks;

2. For conformance with the Tier II HCl and Cl₂ emission rate screening limits under Section 8(2)(b) of this administrative regulation and the Tier III HCl and Cl₂ controls under Section 8(3) of this administrative regulation, the permit shall specify the following operating requirements:

a. Maximum emission rate for HCl and for Cl₂ specified as the average emission rate during the trial burn;

b. Feed rate of total hazardous waste measured and specified as prescribed in paragraph (f) of this subsection;

c. Total feed rate of chlorine and chloride in total feed streams, measured and specified as prescribed in paragraph (f) of this subsection;

d. Maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (f) of this subsection;

e. Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

f. Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

g. Any other operating requirements that are necessary to ensure that the HCl and Cl₂ standards under Section 8(2)(b) or (3) of this administrative regulation are met.

(f) Measuring parameters and establishing limits based on trial burn data.

1. General requirements. As specified in paragraphs (b) to (e) of this subsection, each operating parameter shall be measured;

and permit limits on the parameter shall be established, according to either of the following procedures:

a. Instantaneous limits—A parameter may be measured and recorded on an instantaneous basis (that is, the value that occurs at any time) and the permit limit specified as the time-weighted average during all valid runs of the trial burn; or

b. Hourly rolling average.

(i) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

i. A continuous monitor is one (1) which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and computes and records the average value at least every sixty (60) seconds.

ii. An hourly rolling average is the arithmetic mean of the sixty (60) most recent one (1) minute average values recorded by the continuous monitoring system.

(ii) The permit limit for the parameter shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average value for each run.

2. Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (that is, arsenic, beryllium, cadmium and chromium) and lead may be established either on an hourly rolling average basis as prescribed by subparagraph 1 of this paragraph or on up to a twenty-four (24) hour rolling average basis. If the owner or operator elects to use an average period from two (2) to twenty-four (24) hours:

a. The feed rate of each metal shall be limited at any time to ten (10) times the feed rate that would be allowed on an hourly rolling average basis; and

b. The continuous monitor shall meet the following specifications:

(i) A continuous monitor is one (1) which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and computes and records the average value at least every sixty (60) seconds.

(ii) The rolling average for the selected averaging period is defined as the arithmetic mean of one (1) hour block averages for the averaging period. A one (1) hour block average is the arithmetic mean of the one (1) minute averages recorded during the sixty (60) minute period beginning at one (1) minute after the beginning of preceding clock hour; and

c. The permit limit for the feed rate of each metal shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average feed rate for each run.

3. Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (that is, metals, chloride, chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of subparagraphs 1 and 2 of this paragraph.

4. Conduct of a trial burn testing.

a. If compliance with all applicable emissions standards of Sections 5 to 8 of this administrative regulation is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

b. Prior to obtaining test data for purposes of demonstrating compliance with the emissions standards of Sections 5 to 8 of this administrative regulation or establishing limits on operating parameters under this section, the site or facility shall operate under trial burn conditions for a sufficient period to reach steady-state operations. The cabinet may determine, however, that industrial furnaces that recycle collected particulate matter back into the furnace and that comply with an alternative implementation approach for metals under Section 7(6) of this administrative regulation need not reach steady-state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals emissions.

e. Trial burn data on the level of an operating parameter for which a limit shall be established in the permit shall be obtained during emissions sampling for the pollutant (that is, metals, PM, HCl/Cl₂, organic compounds) for which the parameter shall be established as specified by paragraph (e) of this subsection.

(g) General requirements.

1. Fugitive emissions. Fugitive emissions shall be controlled by:

a. Keeping the combustion zone totally sealed against fugitive emissions; or

b. Maintaining the combustion zone pressure lower than atmospheric pressure; or

c. An alternate means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

2. Automatic waste feed cutoff. A boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established under this section. The cabinet may limit the number of cutoffs per an operating period on a case-by-case basis. In addition:

a. The permit limit for (the indicator of) minimum combustion chamber temperature shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber;

b. Exhaust gases shall be ducted to the air pollution control system operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and

c. Operating parameters for which permit limits are established shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of these parameters comply with the permit limits. For parameters that may be monitored on an instantaneous basis, the cabinet shall establish a minimum period of time after a waste feed cutoff during which the parameter shall not exceed the permit limit before the hazardous waste feed may be restarted.

3. Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits as specified in the permit.

(h) Monitoring and inspections.

1. The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

a. If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and total chloride and chlorine;

b. If specified by the permit, carbon monoxide (CO), hydrocarbons (HC), and oxygen on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with operating requirements specified in paragraph (b)2 of this subsection. CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.026.

c. Upon the request of the cabinet, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feedstocks as appropriate), residues, and exhaust emissions shall be conducted to verify that the operating requirements established in the permit achieve the applicable standards of Sections 5, 6, 7, and 8 of this administrative regulation.

2. All monitors shall record data in units corresponding to the permit limit unless otherwise specified in the permit.

3. The boiler or industrial furnace and associated equipment (for example, pumps, valves, pipes, and fuel storage tanks) shall be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

4. The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once every seven (7) days when hazardous waste is burned to verify operability, unless

the applicant demonstrates to the cabinet weekly inspections shall unduly restrict or upset operations and that less frequent inspections shall be adequate. At a minimum, operational testing shall be conducted at least once every thirty (30) days.

5. These monitoring and inspection data shall be recorded and the records shall be placed in the operating record required by Section 4 of 401 KAR 34.050.

(j) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section 12 of this administrative regulation.

(j) Recordkeeping. The owner or operator shall keep in the operating record of the facility all information and data required by this section until closure of the facility.

(k) Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the boiler or industrial furnace.

Section 4. Interim Status Standards for Burners (1) Purpose, scope, applicability.

(a) General.

1. The purpose of this section is to establish minimum national standards for owners and operators of "existing" boilers and industrial furnaces that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of this section apply to owners and operators of existing facilities until either a permit is issued under Section 3(4) of this administrative regulation or until closure responsibilities identified in this section are fulfilled.

2. A facility has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction, and either:

a. A continuous on-site, physical construction program has begun; or

b. The owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial loss for physical construction of the facility to be completed within a reasonable time.

3. If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the facility shall comply with the applicable administrative regulations dealing with permit modifications at the request of the permittee under 401 KAR 38.040 or changes in interim status in Section 3 of 401 KAR 38.020.

(b) Exemptions. The requirements of this section do not apply to hazardous waste and facilities exempt under Section 1(2) or Section 9 of this administrative regulation.

(c) Prohibition on burning dioxin listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes shall not be burned in a boiler or industrial furnace operating under interim status: EPA Hazardous Waste Numbers F020, F021, F022, F023, F026, and F027.

(d) Applicability of 401 KAR Chapter 35 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of 401 KAR Chapter 35, except as provided otherwise by this section:

1. Section 2 of 35.010, and

2. Sections 2 to 8 of 401 KAR 35.020, and

3. Sections 2 to 7 of 401 KAR 35.030, and

4. Sections 2 to 7 of 401 KAR 35.040; and

5. Sections 2 to 8 of 401 KAR 35.050, except that Sections 2, 3, and 7 shall not apply to owners or operators of on-site facilities that do not receive any hazardous waste from off-site sources, and

6. Sections 2 to 6 of 401 KAR 35.070; and

7. 401 KAR 35.080, 401 KAR 35.090, 401 KAR 35.110, 401 KAR 35.120, and 401 KAR 35.130, except that states and the federal government are exempt from the requirements of 401 KAR 35.080, and

8. 401 KAR 35.280, except Section 2(1).

(e) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces (for example, kilns, cupolas) that feed hazardous waste for a purpose other than

solely as an ingredient (see subparagraph 2 of this paragraph) at any location other than the hot end where products are normally discharged and where fuels are normally fired:

1. Controls.

a. The hazardous waste shall be fed at a location where combustion gas temperatures are at least 1800 degrees Fahrenheit;

b. The owner or operator shall determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;

c. For cement kiln systems, the hazardous waste shall be fed into the kiln; and

d. The hydrocarbon controls of Section 5(3) of this administrative regulation or subsection (3)(g)2 of this section apply upon certification of compliance under subsection (3) of this section irrespective of the CO level achieved during the compliance test.

2. Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than solely as an ingredient if it meets either of these criteria:

a. The hazardous waste has a total concentration of nonmetal compounds listed in 401 KAR 31.170 exceeding 500 ppm by weight, as fired, and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as generated may be reduced to the 500 ppm limit by authentic treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited, and documentation that the waste has not been impermissibly diluted shall be retained in the facility record; or

b. The hazardous waste has a heating value of 5,000 Btu/lb or more, as fired, and so is considered to be burned as fuel. The heating value of a waste as generated may be reduced to below the 5,000 Btu/lb limit by authentic treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited, and documentation that the waste has not been impermissibly blended shall be retained in the facility record.

(f) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under subsection (3) of this section, owners and operators shall not feed hazardous waste that has a heating value less than 5,000 Btu/lb, as generated, (except that the heating value of a waste as generated may be increased to above the 5,000 Btu/lb limit by authentic treatment; however, blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records shall be kept to document that impermissible blending has not occurred) in a boiler or industrial furnace, except that:

1. Hazardous waste may be burned solely as an ingredient; or

2. Hazardous waste may be burned for purposes of compliance testing (or testing prior to compliance testing) for a total period of time not to exceed 720 hours; or

3. This waste may be burned if the cabinet has documentation to show that, prior to August 21, 1991:

a. The boiler or industrial furnace is operating under the interim status standards for incinerators provided by 401 KAR 35.240, or the interim status standards for thermal treatment units provided by 401 KAR 35.250, and

b. Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or

4. This waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under Section 2(5) of 401 KAR 31.010 prior to February 21, 1991 and documentation is kept on file supporting this claim.

(g) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section 12 of this administrative regulation.

(2) Certification of precompliance.

(a) General. The owner or operator shall provide complete and accurate information specified in paragraph (b) of this subsection to the cabinet on or before August 21, 1991, and shall establish limits for the operating parameters specified in paragraph (c) of this subsection. This information is termed a "certification of precompliance" and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits

specified in paragraph (c) of this subsection, the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, and HCl and Cl₂ are not likely to exceed the limits provided by Sections 6, 7, and 8 of this administrative regulation. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under paragraph (c) of this subsection until the owner or operator submits a revised certification of precompliance under paragraph (h) of this subsection or a certification of compliance under subsection (3) of this section, or until a permit is issued.

(b) Information required. The following information shall be submitted with the certification of precompliance to support the determination that the limits established for the operating parameters identified in paragraph (c) of this subsection are not likely to result in an exceedance of the allowable emission rates for particulate matter, metals, and HCl and Cl₂:

1. General facility information:

- a. EPA facility ID number;
- b. Facility name, contact person, telephone number, and address;
- c. Description of boilers and industrial furnaces burning hazardous waste, including type and capacity of device;
- d. A scaled plot plan showing the entire facility and location of the boilers and industrial furnaces burning hazardous waste; and
- e. A description of the air pollution control system on each device burning hazardous waste, including the temperature of the flue gas at the inlet to the particulate matter control system.

2. Except for facilities complying with the Tier I or adjusted-Tier I feed rate screening limits for metals or total chlorine and chloride provided by Sections 7(2) or (5) and 8(2)(a) or (5) of this administrative regulation respectively, the estimated uncontrolled (at the inlet to the air pollution control system) emissions of particulate matter, each metal controlled by Section 7 of this administrative regulation, and hydrogen chloride and chlorine, and the following information to support such determinations:

a. The feed rate (lb/hr) of ash, chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream (hazardous waste, other fuels, industrial furnace feedstocks);

b. The estimated partitioning factor to the combustion gas for the materials identified in clause a of this subparagraph and the basis for the estimate and an estimate of the partitioning to HCl and Cl₂ of total chloride and chlorine in feed materials. To estimate the partitioning factor, the owner or operator shall use either best engineering judgment or the procedures specified in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025;

c. For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that shall certify compliance with the metals emissions standards under subsection (3)(c)2a of this section, the estimated enrichment factor for each metal. To estimate the enrichment factor, the owner or operator shall use either best engineering judgment or the procedures specified in "Alternative Methodology for Implementing Metals Controls" incorporated in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11(1) of 401 KAR 36.025;

d. If best engineering judgment is used to estimate partitioning factors or enrichment factors under clause b or c of this subparagraph respectively, the basis for the judgment. When best engineering judgment is used to develop or evaluate data or information and make determinations under this section, the determinations shall be made by an engineer and a certification of his determinations in accordance with Section 7(4) of 401 KAR 38.070 shall be provided in the certification of precompliance;

3. For facilities complying with the Tier I or adjusted-Tier I feed rate screening limits for metals or total chlorine and chloride provided by Sections 7(2) or (5) and 8(2)(a) or (5) of this administrative regulation, the feed rate (lb/hr) of total chloride and chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream (hazardous waste, other fuels, industrial furnace feedstocks);

4. For facilities complying with the Tier II or Tier III emission limits for metals or HCl and Cl₂ (under Sections 7(3) or (4) and 8(2)(b) or (3) of this administrative regulation), the estimated controlled (outlet of the air pollution control system) emissions rates of

particulate matter, each metal controlled by Section 7 of this administrative regulation, and HCl and Cl₂, and the following information to support such determinations.

a. The estimated air pollution control system (APCS) removal efficiency for particulate matter, HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium;

b. To estimate APCS removal efficiency, the owner or operator shall use either best engineering judgment or the procedures prescribed in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025;

c. If best engineering judgment is used to estimate APCS removal efficiency, the basis for the judgment. Use of best engineering judgment shall be in conformance with provisions of subparagraph 2d of this paragraph;

5. Determination of allowable emissions rates for HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium, and the following information to support such determinations:

- a. For all facilities:
 - (i) Physical stack height;
 - (ii) Good engineering practice stack height as defined by 40 C.F.R. 51.100(ii);
 - (iii) Maximum flue gas flow rate;
 - (iv) Maximum flue gas temperature;
 - (v) Attach a USGS topographic map (or equivalent) showing the facility location and surrounding land within five (5) km of the facility;
 - (vi) Identify terrain type: complex or noncomplex, and
 - (vii) Identify land use: urban or rural;

b. For owners and operators using Tier III site specific dispersion modeling to determine allowable levels under Section 7(4) or 8(3) of this administrative regulation, or adjusted-Tier I feed rate screening limits under Section 7(5) or 8(5) of this administrative regulation:

- (i) Dispersion model and version used;
- (ii) Source of meteorological data;
- (iii) The dilution factor in micrograms per cubic meter per gram per second of emissions for the maximum annual average off-site (unless on-site is required) ground level concentration (MEI location); and
- (iv) Indicate the MEI location on the map required under clause a(v) of this subparagraph;

6. For facilities complying with the Tier II or III emissions rate controls for metals or HCl and Cl₂, a comparison of the estimated controlled emissions rates determined under subparagraph 4 of this paragraph with the allowable emission rates determined under subparagraph 5 of this paragraph;

7. For facilities complying with the Tier I (or adjusted-Tier I) feed rate screening limits for metals or total chloride and chlorine, a comparison of actual feed rates of each metal and total chlorine and chloride determined under subparagraph 3 of this paragraph to the Tier I allowable feed rates;

8. For industrial furnaces that feed hazardous waste for any purpose other than solely as an ingredient (as defined at subsection (1)(a)2 of this section) at any location other than the product discharge end of the device, documentation of compliance with the requirements of subsection (1)(c)1a to e of this section; and

9. For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that shall certify compliance with the metals emissions standards under subsection (3)(c)2a of this section:

- a. The applicable particulate matter standard in lb/hr; and
- b. The precompliance limit on the concentration of each metal in collected PM.

(c) Limits on operating conditions. The owner and operator shall establish limits on the following parameters consistent with the determinations made under paragraph (b) of this subsection and certify (under provisions of paragraph (i) of this subsection) to the cabinet that the facility shall operate within the limits during interim status when there is hazardous waste in the unit until revised certification of precompliance under paragraph (h) of this subsection or certification of compliance under subsection (3) of this section:

1. Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation) pumpable hazardous waste;

2. Feed rate of each metal in the following feed streams:

a. Total feed streams, except that industrial furnaces that comply with the alternative metals implementation approach under paragraph (d) of this subsection shall specify limits on the concentration of each metal in collected particulate matter in lieu of feed rate limits for total feedstreams;

b. Total hazardous waste feed, unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation; and

c. Total pumpable hazardous waste feed, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(3) or (5) of this administrative regulation;

3. Total feed rate of chlorine and chloride in total feed streams;

4. Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; and

5. Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or adjusted Tier I feed rate screening limits for chlorine under Section 8(2)(a) or (5) of this administrative regulation and for all metals under Section 7(2) or (5) of this administrative regulation, and all the uncontrolled particulate emissions do not exceed the standard under Section 6 of this administrative regulation.

(d) Operating requirements for furnaces that recycle PM. Owners and operators of furnaces that recycle collected particulate matter (PM) back into the furnace and that shall certify compliance with the metals emissions controls under subsection (3)(c)2a of this section shall comply with the special operating requirements provided in "Alternative Methodology for Implementing Metals Controls" incorporated in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11(1) of 401 KAR 36.025.

(e) Measurement of feed rates and production rate.

1. General requirements. Limits on each of the parameters specified in paragraph (c) of this subsection (except for limits on metals concentrations in collected particulate matter (PM) for industrial furnaces that recycle collected PM) shall be established and continuously monitored and recorded under either of the following methods:

a. Instantaneous limits. A limit for a parameter may be established and continuously monitored and recorded on an instantaneous basis (that is, the value that occurs at any time) not to be exceeded at any time; or

b. Hourly rolling average limits. A limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(i) A continuous monitor is one (1) which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and computes and records the average value at least every sixty (60) seconds.

(ii) An hourly rolling average is the arithmetic mean of the sixty (60) most recent one (1) minute average values recorded by the continuous monitoring system.

2. Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (arsenic, beryllium, cadmium, and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (c)1b of this subsection or on up to a twenty-four (24) hour rolling average basis. If the owner or operator elects to use an averaging period from two (2) to twenty-four (24) hours:

a. The feed rate of each metal shall be limited at any time to ten (10) times the feed rate that would be allowed on a hourly rolling average basis;

b. The continuous monitor shall meet the following specifications:

(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and computes and records the average value at least every sixty (60) seconds.

(ii) The rolling average for the selected averaging period is defined as the arithmetic mean of one (1) hour block averages for the averaging period. A one (1) hour block average is the arithmetic mean of the one (1) minute averages recorded during the sixty (60) minute period beginning at one (1) minute after the beginning of preceding clock hour.

3. Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (that is, metals, chloride, chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of subparagraphs 1 and 2 of this paragraph.

(f) Public notice requirements at precompliance. On or before August 21, 1991, the owner or operator shall submit a notice with the following information for publication in a major local newspaper of general circulation and send a copy of the notice to the appropriate units of state and local government. The owner and operator shall provide to the cabinet with the certification of precompliance evidence of submitting the notice for publication. The notice, which shall be entitled "Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of 401 KAR 36.020", shall include:

1. Name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;

2. Date that the certification of precompliance is submitted to the cabinet;

3. Brief description of the regulatory process required to comply with the interim status requirements of this section including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl₂;

4. Types and quantities of hazardous waste burned including, but not limited to, source, whether solids or liquids, as well as an appropriate description of the waste;

5. Type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;

6. Types and quantities of other fuels and industrial furnace feedstocks fed to each unit;

7. Brief description of the basis for this certification of precompliance as specified in paragraph (b) of this subsection;

8. Locations where the record for the facility may be viewed and copied by interested parties. These records and locations shall at a minimum include:

a. The administrative record kept by the cabinet office where the supporting documentation was submitted or another location designated by the cabinet; and

b. The BIF correspondence file kept at the facility site where the device is located. The correspondence file must include all correspondence between the facility and EPA, the cabinet, and local regulatory officials, including copies of all certifications and notifications, such as the precompliance certification, precompliance public notice, notice of compliance testing, compliance test report, compliance certification, time extension requests and approvals or denials, enforcement notifications of violations, and copies of EPA and cabinet site visit reports submitted to the owner or operator;

9. Notification of the establishment of a facility mailing list whereby interested parties shall notify the cabinet that they wish to be placed on the mailing list to receive future information and notices about this facility; and

10. Location (mailing address) of the applicable EPA regional office, hazardous waste division, where further information may be obtained on EPA regulation of hazardous waste burning.

(g) Monitoring other operating parameters. When the monitoring systems for the operating parameters listed in subsection (3)(a)5 to 13 of this section are installed and operating in conformance with vendor specifications or (for CO, HC, and oxygen) specifications provided by Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025 as appropriate, the parameters shall be continuously monitored and records shall be maintained in the operating record.

(h) Revised certification of precompliance. The owner or operator may revise, at any time, the information and operating conditions documented under paragraphs (b) and (c) of this subsection in the certification of precompliance by submitting a revised certification of precompliance under procedures provided by those subsections.

1. The public notice requirements of paragraph (f) of this subsection do not apply to recertifications.

2. The owner and operator shall operate the facility within the limits established for the operating parameters under paragraph (c) of this subsection until a revised certification is submitted under this section or a certification of compliance is submitted under subsection (3) of this section.

(i) Certification of precompliance statement. The owner or operator shall include the following signed statement with the certification of precompliance submitted to the cabinet:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results, and other information used to determine conformance with the requirements of Section 4(2) of this administrative regulation are available at the facility and may be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating limits established in this certification pursuant to Section 4(2)(c) and (d) of 401 KAR 36.020 are enforceable limits at which the facility may legally operate during interim status until:

1. A revised certification of precompliance is submitted;
2. A certification of compliance is submitted, or
3. An operating permit is issued."

(3) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of Sections 5(2) to (5) and 6, 7, and 8 of this administrative regulation and subsection (1)(c)1d of this section, under the procedures prescribed by this subsection, except under extensions of time provided by paragraph (g) of this subsection. Based on the compliance test, the owner or operator shall submit to the cabinet on or before August 21, 1992 a complete and accurate "certification of compliance" (under paragraph (d) of this subsection) with those emission standards establishing limits on the operating parameters specified in paragraph (a) of this subsection.

(a) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test (under procedures prescribed in paragraph (d)4 of this subsection) or as otherwise specified by the cabinet and include these limits with the certification of compliance. The boiler or industrial furnace shall be operated in accordance with these operating limits and all applicable emissions standards of subsection (1)(c)1d of this section, Sections 5(2) to (5) and 6, 7, and 8 of this administrative regulation at all times when there is hazardous waste in the unit.

1. Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation and the total chlorine and chloride feed rate screening limits under Section 8(2) or (5) of this administrative regulation) pumpable hazardous waste.

2. Feed rate of each metal in the following feedstreams:

a. Total feedstreams, except that:

(i) Facilities that comply with Tier I or adjusted Tier I metals feed rate screening limits may set their operating limits at the metals feed rate screening limits determined under Section 7(2) or (5) of this administrative regulation, and

(ii) Industrial furnaces that shall comply with the alternative metals implementation approach under paragraph (c)2 of this subsection shall specify limits on the concentration of each metal in

the collected particulate matter in lieu of feed rate limits for total feedstreams;

b. Total hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation); and

c. Total pumpable hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation);

3. Total feed rate of chlorine and chloride in total feedstreams, except that facilities that comply with Tier I or adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under Section 8(2)(a) or (5) of this administrative regulation;

4. Total feed rate of ash in total feedstreams, except that the ash feed rate for cement kilns and light weight aggregate kilns is not limited;

5. Carbon monoxide (CO) concentration, and where required, hydrocarbon (HC) concentration in stack gas. When complying with the CO controls of Section 5(2) of this administrative regulation, the CO limit shall be 100 ppmv, and when complying with the HC controls of Section 5(3) of this administrative regulation, the HC controls shall be twenty (20) ppmv. When complying with the CO controls of Section 5(3) of this administrative regulation, the CO limit shall be established based on the compliance test;

6. Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or adjusted Tier I feed rate screening limits for chlorine under Section 8(2)(a) or (5) of this administrative regulation and for all metals under Section 7(2) or (5) of this administrative regulation, and the uncontrolled particulate emissions do not exceed the standard under Section 6 of this administrative regulation;

7. Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation);

8. Maximum flue gas temperature entering a particulate matter control device (unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation, and the total chlorine and chloride feed rate screening limits under Section 8(2) or (5) of this administrative regulation);

9. For systems using wet scrubbers, including wet ionizing scrubbers (unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2)(a) or (5) of this administrative regulation):

- a. Minimum liquid to flue gas ratio;
- b. Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and
- c. Minimum pH level of the scrubber water;

10. For systems using venturi scrubbers, the minimum differential gas pressure across the venturi (unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation and the total chlorine and chloride feed rate screening limits under Section 8(2)(a) or (5) of this administrative regulation);

11. For systems using dry scrubbers (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation and the total chlorine and chloride feed rate screening limits under Section 8(2)(a) or (5) of this administrative regulation):

- a. Minimum caustic feed rate, and
- b. Maximum flue gas flow rate;

12. For systems using wet ionizing scrubbers or electrostatic precipitation (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 7(2) or (5) of this administrative regulation and the total chlorine and chloride feed rate screening limits under Section 8(2)(a) or (5) of this administrative regulation):

- a. Minimum electrical power in kilovolt amperes (kVA) to the precipitator plate; and
- b. Maximum flue gas flow rate, and

13. For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with Tier I or adjusted Tier I metal

food rate screening limits under Section 7(2) or (5) of this administrative regulation and the total chlorine and chloride feed rate screening limits under Section 8(2)(a) or (5) of this administrative regulation).

(b) Prior notice of compliance testing. At least thirty (30) days prior to the compliance testing required by paragraph (c) of this subsection, the owner or operator shall notify the cabinet and submit the following information:

1. General facility information including:
 - a. EPA facility ID number;
 - b. Facility name, contact person, telephone number, and address;
 - c. Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;
 - d. Planned date of the compliance test;
2. Specific information on each device to be tested including:
 - a. Description of boiler or industrial furnace;
 - b. A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;
 - c. A description of the air pollution control system;
 - d. Identification of the continuous emission monitors that are installed, including:
 - (i) Carbon monoxide monitor;
 - (ii) Oxygen monitor;
 - (iii) Hydrocarbon monitor, specifying the minimum temperature of the system and, if the temperature is less than 150 degrees Centigrade, an explanation of why a heated system is not used (see paragraph (c) of this subsection) and a brief description of the sample gas conditioning system;
 - e. Indication of whether the stack is shared with another device that shall be in operation during the compliance test;
 - f. Other information useful to an understanding of the system design or operation.

3. Information on the testing planned, including a complete copy of the test protocol and quality assurance/quality control (QA/QC) plan, and a summary description for each test providing the following information at a minimum:

- a. Purpose of the test (for example, demonstrate compliance with emissions of particulate matter); and
 - b. Planned operating conditions, including levels for each pertinent parameter specified in paragraph (a) of this subsection.
- (c) Compliance testing.

1. General. Compliance testing shall be conducted under conditions for which the owner or operator has submitted a certification of precompliance under subsection (2) of this section and under conditions established in the notification of compliance testing required by paragraph (b) of this subsection. The owner or operator may seek approval on a case-by-case basis to use compliance test data from one (1) unit instead of testing a similar on-site unit. To support the request, the owner or operator must provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The cabinet shall provide a written approval to use compliance test data instead of testing a similar unit if the cabinet finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of this subsection.

2. Special requirements for industrial furnaces that recycle collected particulate matter (PM). Owners and operators of industrial furnaces that recycle back into the furnace PM from the air pollution control system shall comply with one of the following procedures for testing to determine compliance with the metals standards of Section 7(3) or (4) of this administrative regulation.

a. The special testing requirements prescribed in "Alternative Method for Implementing Metals Controls" in Appendix IX of 40 C.F.R. Part 266 that is adopted in Section 11 of 401 KAR 36.025, or

b. Stack emissions testing for a minimum of six (6) hours each day while hazardous waste is burned during interim status. The testing shall be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the air pollution control system is operated under normal conditions. During

interim status, hazardous waste analysis for metals content shall be sufficient for the owner or operator to determine if changes in metals content may affect the ability of the facility to meet the metals emissions standards established in Section 7(3) or (4) of this administrative regulation. Under this option, operating limits (under subsection (3)(a) of this section) shall be established during compliance testing under subsection (3)(c) of this section only on the following parameters;

- (i) Feed rate of total hazardous waste;
- (ii) Total feed rate of chlorine and chloride in total feedstreams;
- (iii) Total feed rate of ash in total feedstreams, except that the ash feed rate for cement kilns and light weight aggregate kilns is not limited;
- (iv) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas;
- (v) Maximum production rate of the device in appropriate units when producing normal product, or

c. Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of subsection (3)(a) of this section only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test shall be fed at the feed rates that will be fed during the compliance test.

2. Conduct of compliance testing.

a. If compliance with all applicable emissions standards of Sections 5 to 8 of this administrative regulation is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

b. Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of Sections 5 to 8 of this administrative regulation or establishing limits on operating parameters under this section, the facility shall operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected particulate matter back into the furnace and that comply with subsection (3)(c)2a or b of this section, however, need not reach steady-state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.

c. Compliance test data on the level of an operating parameter for which a limit shall be established in the certification of compliance shall be obtained during the emissions sampling for the pollutant(s) (that is, metals, PM, HCl, Cl₂, organic compounds) for which the parameter shall be established as specified by subsection (3)(a) of this section.

(d) Certification of compliance. Within ninety (90) days of completing compliance testing, the owner or operator shall certify to the cabinet compliance with the emissions standards of Section 5(2), (3), and (15) of this administrative regulation, Sections 6 to 8 of this administrative regulation, and subsection (1)(d)1d of this section. The certification of compliance shall include the following information:

1. General facility and testing information including:
 - a. EPA facility ID number;
 - b. Facility name, contact person, telephone number, and address;
 - c. Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;
 - d. Date(s) of each compliance test;
 - e. Description of boiler or industrial furnace tested;
 - f. Person responsible for quality assurance/quality control (QA/QC), title, and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under paragraph (b)3 of this subsection have been followed, or a description of any changes and an explanation of why changes were necessary.
 - g. Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under paragraph (b) of this subsection, and an explanation of why the changes were necessary;

h—Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under paragraph (b) of this subsection, and an explanation of why the changes were necessary; and

i. The complete report on results of emissions testing.

2. Specific information on each test including:

a. Purpose(s) of test (for example, demonstrate conformance with the emissions limits for particulate matter, metals, HCl, Cl₂, and CO), and

b. Summary of test results for each run and for each test including the following information:

(i) Date of run;

(ii) Duration of run;

(iii) Time-weighted average and highest hourly rolling average CO level for each run and for the test;

(iv) Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test;

(v) If dioxin and furan testing is required under Section 5(5) of this administrative regulation, time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground-level concentration of the toxicity equivalency factor;

(vi) Time-weighted average particulate matter emissions for each run and for the test;

(vii) Time-weighted average HCl and Cl₂ emissions for each run and for the test;

(viii) Time-weighted average emissions for the metals subject to regulation under Section 7 of this administrative regulation for each run and for the test; and

(ix) QA/QC results.

3. Comparison of the actual emissions during each test with the emissions limits prescribed by Section 5(3), (4) and (5) of this administrative regulation, Sections 6 to 8 of this administrative regulation and established for the facility in the certification of pre-compliance under subsection (2) of this section.

4. Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in paragraph (a) of this subsection using either of the following procedures:

a. Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis (that is, the value that occurs at any time) and the operating limit specified as the time-weighted average during all runs of the compliance test, or

b. Hourly rolling average basis.

(i) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

i. A continuous monitor is one (1) which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and computes and records the average value at least every sixty (60) seconds; and

ii. An hourly rolling average is the arithmetic mean of the sixty (60) most recent one (1) minute average values recorded by the continuous monitoring system.

(ii) The operating limit for the parameter shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.

c. Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (that is, arsenic, beryllium, cadmium, and chromium) and lead may be established either on an hourly rolling average basis as prescribed by clause b of this subparagraph or up to a twenty-four (24) hour rolling average basis. If the owner or operator elects to use an averaging period from two (2) to twenty-four (24) hours:

(i) The feed rate of each metal shall be limited at any time to ten (10) times the feed rate that would be allowed on a hourly rolling average basis;

(ii) The continuous monitor shall meet the following specifications:

i. A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each fifteen (15) seconds, and com-

putes and records the average value at least every sixty (60) seconds; and

ii. The rolling average for the selected averaging period is defined as arithmetic mean of one (1) hour block averages for the averaging period. A one (1) hour block average is the arithmetic mean of the one minute averages recorded during the sixty (60) minute period beginning at one (1) minute after the beginning of preceding clock hour; and

(iii) The operating limit for the feed rate of each metal shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.

d. Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (metals, chloride, chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of clauses a to e of this subparagraph.

5. Certification of compliance statement. The following statement shall accompany the certification of compliance.

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of Section 4(3) of 401 KAR 36:020 are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating conditions established in this certification pursuant to Section 4(3)(d)4 of 401 KAR 36:020 are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted."

(e) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the hydrocarbon (HC) controls provided by Section 5(3) of this administrative regulation, subsection (1)(e)1d of this section, a conditioned gas monitoring system may be used in conformance with specifications provided in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36:025 provided that the owner or operator submits a certification of compliance without using extensions of time provided by paragraph (g) of this subsection.

(f) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system shall:

1. When complying with the requirements of paragraph (e)2a of this subsection, comply with the operating requirements prescribed in "Alternative Method to Implement the Metals Controls" incorporated in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11(1) of 401 KAR 36:025; and

2. When complying with the requirements of paragraph (e)2b of this subsection, comply with the operating requirements prescribed by that subsection.

(g) Extensions of time.

1. If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of Sections 5 to 8 of this administrative regulation by August 21, 1992, he shall either:

a. Stop burning hazardous waste and begin closure activities under subsection (12) of this section for the hazardous waste portion of the facility; or

b. Limit hazardous waste burning only for purposes of compliance testing (and pretesting to prepare for compliance testing) a total period of 720 hours for the period of time beginning August

21, 1992, submit a notification to the cabinet by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or

e. Obtain a case-by-case extension of time under subparagraph 2 of this paragraph.

2. The owner or operator may request a case-by-case extension of time to extend any time limit provided by this subsection if compliance with the time limit is not practicable for reasons beyond the control of the owner or operator.

a. In granting an extension, the cabinet may apply conditions as the facts warrant to ensure timely compliance with the requirements of this section and that the facility operates in a manner that does not pose a hazard to human health and the environment;

b. When an owner and operator request an extension of time to enable the facility to comply with the alternative hydrocarbon provisions of Section 5(6) of this administrative regulation and obtain a hazardous waste operating permit because the facility cannot meet the HC limit of Section 5(3) of this administrative regulation:

(i) The cabinet shall, in considering whether to grant the extension:

i. Determine whether the owner and operator have submitted in a timely manner a complete Part B permit application that includes information required under Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025 of this chapter; and

ii. Consider whether the owner and operator have made a good faith effort to certify compliance with all other emission controls, including the controls on dioxins and furans of Section 5(5) of this administrative regulation and the controls on PM, metals, and HCl/Cl₂.

(ii) If an extension is granted, the cabinet shall, as a condition of the extension, require the facility to operate under flue gas concentration limits on CO and HC that, based on available information, including information in the Part B permit application, are baseline CO and HC levels as defined by Section 5(6)(a) of this administrative regulation.

(h) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance (recertification of compliance) under the following procedures:

1. Prior to submittal of a revised certification of compliance, hazardous waste may not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning may be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of Sections 5 to 8 of this administrative regulation;

2. At least thirty (30) days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the cabinet and submit the following information:

a. EPA facility ID number, and facility name, contact person, telephone number, and address;

b. Operating conditions that the owner or operator is seeking to revise and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;

c. A determination that when operating under the revised operating conditions, the applicable emissions standards of Sections 5 to 8 of this administrative regulation are not likely to be exceeded. To document this determination, the owner or operator shall submit the applicable information required under subsection (2)(b) of this section; and

d. Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of Sections 5 to 8 of this administrative regulation when operating under revised operating conditions. The protocol shall include a schedule of pretesting and compliance testing. If the owner and operator revise the scheduled date for the compliance test, he shall notify the cabinet in writing at least thirty (30) days prior to the revised date of the compliance test;

3. Conduct a compliance test under the revised operating conditions and the protocol submitted to the cabinet to determine compliance with the applicable emissions standards of Sections 5

to 8 of this administrative regulation; and

4. Submit a revised certification of compliance under paragraph (d) of this subsection.

(4) Periodic recertifications. The owner or operator shall conduct compliance testing and submit to the cabinet a recertification of compliance under provisions of subsection (3) of this section within three (3) years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he shall comply with the requirements of subsection (3)(h) of this section.

(5) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by subsections (2) to (4) of this section, hazardous waste burning shall terminate on the date that the deadline is missed, closure activities shall begin under subsection (12) of this section, and hazardous waste burning shall not resume except under an operating permit issued under Section 7 of 401 KAR 36.060. For purposes of compliance with the closure provisions of subsection (12) of this section and Sections 3(4)(b) and 4 of 401 KAR 36.070, the boiler or industrial furnace has received "the known final volume of hazardous waste" on the date that the deadline is missed.

(6) Start-up and shut-down. Hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride, chlorine) shall not be fed into the device during start-up and shut-down of the boiler or industrial furnace, unless the device is operating within the conditions of operation specified in the certification of compliance.

(7) Automatic waste feed cutoff. During the compliance test required by subsection (3)(e) of this section, and upon certification of compliance under subsection (3) of this section, a boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in subsections (3)(a)1(v) to (xiii) of this section deviate from those established in the certification of compliance. In addition:

(a) To minimize emissions of organic compounds, the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:

1. If compliance with the combustion chamber temperature limit is based on a hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or

2. If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and

(b) Operating parameters limited by the certification of compliance shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.

(8) Fugitive emissions. Fugitive emissions shall be controlled by:

(a) Keeping the combustion zone totally sealed against fugitive emissions; or

(b) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(c) An alternate means of control that the owner or operator demonstrates provides fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for this demonstration shall be included in the operating record.

(9) Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits specified in the certification of compliance.

(10) Monitoring and inspections.

(a) The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

1. Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks, and feed rates of ash, metals, and total chloride and chlorine as necessary to ensure conformance with the certification of precompliance or certification of compliance;

2. Carbon monoxide (CO), oxygen, and if applicable, hydrocarbons (HC), on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025; and

3. Upon the request of the cabinet, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feed stocks as appropriate) and the stack gas emissions shall be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of Sections 6 to 8 of this administrative regulation.

(b) The boiler or industrial furnace and associated equipment (for example, pumps, valves, pipes, and fuel storage tanks) shall be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(c) The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once every seven (7) days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections shall unduly restrict or upset operations and that less frequent inspections will be adequate. Support for the demonstration shall be included in the operating record. At a minimum, operational testing shall be conducted at least once every thirty (30) days.

(d) These monitoring and inspection data shall be recorded and the records shall be placed in the operating log.

(11) Recordkeeping. The owner or operator shall keep in the operating record of the facility all information and data required by this section until closure of the boiler or industrial furnace unit.

(12) Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the boiler or industrial furnace and shall comply with Sections 2 to 6 of 401 KAR 36.070.

Section 5. Standards to Control Organic Emissions. (1) DRE standard.

(a) General. Except as provided in paragraph (c) of this subsection, a boiler or industrial furnace burning hazardous waste shall achieve a destruction and removal efficiency (DRE) of 99.99 percent for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99 percent DRE shall be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated (under paragraph (b) of this subsection) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE = \left[1 - \frac{W_{out}}{W_{in}} \right] \times 100$$

where:

W_{in} = Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

W_{out} = Mass emission rate of the same POHC present in stack gas prior to release to the atmosphere.

(b) Designation of POHCs. Principal organic hazardous constituents (POHCs) are those compounds for which compliance with the DRE requirements of this section shall be demonstrated in a trial burn in conformance with procedures prescribed in Section 7 of 401 KAR 36.025. One (1) or more POHCs shall be designated by the cabinet for each waste feed to be burned. POHCs shall be

designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with Part B of the permit application. POHCs are most likely to be selected from among those compounds listed in 401 KAR 31:170 that are also present in the normal waste feed. However, if the applicant demonstrates to the cabinet's satisfaction that a compound not listed in 401 KAR 31:170 or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of this section, that compound may be designated as a POHC. Such POHCs need not be toxic or organic compounds.

(c) Dioxin listed waste. A boiler or industrial furnace burning hazardous waste containing (or derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 shall achieve a destruction and removal efficiency (DRE) of 99.9999 percent for each POHC designated (under paragraph (b) of this subsection) in its permit. This performance shall be demonstrated on POHCs that are more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in paragraph (a) of this subsection. In addition, the owner or operator of the boiler or industrial furnace shall notify the cabinet of intent to burn EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(d) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by Section 11 of this administrative regulation are considered to be in compliance with the DRE standard of paragraph (a) of this subsection and are exempt from the DRE trial burn.

(e) Low-risk waste. Owners and operators of boilers or industrial furnaces that burn hazardous waste in compliance with the requirements of Section 10(1) of this administrative regulation are considered to be in compliance with the DRE standard of paragraph (a) of this subsection and are exempt from the DRE trial burn.

(2) Carbon monoxide standard.

(a) Except as provided in subsection (3) of this section, the stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste shall not exceed 100 ppmv on an hourly rolling average basis (that is, over any sixty (60) minute period), continuously corrected to seven (7) percent oxygen, dry gas basis.

(b) CO and oxygen shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025.

(c) Compliance with the 100 ppmv CO limit shall be demonstrated during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test shall not exceed 100 ppmv.

(3) Alternative carbon monoxide standard.

(a) The stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of hydrocarbons (HC) do not exceed 20 ppmv, except as provided by subsection (c) of this section for certain industrial furnaces.

(b) HC limits shall be established under this section on an hourly rolling average basis (over any sixty (60) minute period), reported as propane, and continuously corrected to seven (7) percent oxygen, dry gas basis.

(c) HC shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025. CO and oxygen shall be continuously monitored in conformance with subsection (2)(b) of this section.

(d) The alternative CO standard is established based on CO data during the trial burn (for a new facility) and the compliance test (for an interim status facility). The alternative CO standard is

the average over all valid runs of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to seven (7) percent oxygen, dry gas basis.

(4) Special requirements for furnaces. Owners and operators of industrial furnaces (for example, kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see Section 4(1)(e)2 of this administrative regulation) at any location other than the end where products are normally discharged and where fuels are normally fired shall comply with the hydrocarbon limits provided by subsections (3) or (6) of this section irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of subsection (2) of this section.

(5) Controls for dioxins and furans. Owners and operators of boilers and industrial furnaces that are equipped with a dry particulate matter control device that operates within the temperature range of 450-750 degrees Fahrenheit, and industrial furnaces operating under an alternative hydrocarbon limit established under subsection (6) of this section shall conduct a site specific risk assessment as follows to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding one (1) in 1,000,000.

(a) During the trial burn (for new facilities or an interim status facility applying for a permit) or compliance test (for interim status facilities), determine emission rates of the tetra octa congeners of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) using Method 23, "Determination of Polychlorinated Dibenzo-p-Dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) from Stationary Sources", in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025;

(b) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra octa CDDs/CDFs congeners using "Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners", Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero (see the procedure) by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;

(c) Conduct dispersion modeling using methods recommended in Appendix W of 40 C.F.R. Part 51 ("Guideline on Air Quality Models (Revised)" and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure," provided in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11(1) of 401 KAR 36.025, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, (Revised) incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010 to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under paragraph (b) of this subsection. The maximum annual average concentration shall be used when a person resides on-site; and

(d) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose for 2,3,7,8-TCDD provided in Section 5 of 401 KAR 36.025 (2.2×10^{-7}) shall not exceed one (1.0).

(6) Monitoring CO and HC in the bypass duct of a cement kiln. Cement kilns may comply with the carbon monoxide and hydrocarbon limits provided by subsections (2) to (4) of this section by monitoring in the bypass duct provided that:

(a) Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and

(b) The bypass duct diverts a minimum of ten (10) percent of kiln off-gas into the duct.

(7) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of this section shall be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of this section or to establish alternative CO or HC limits under this section shall be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under subsection (5) of this section and comprehensive organic emissions testing under subsection (6) of this section is conducted.

(8) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 3 of this administrative regulation) shall be regarded as compliance with this section. However, evidence that compliance with these permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and reissuance of a permit under Section 2 of 401 KAR 38.040.

Section 6. Standards to Control Particulate Matter. (1) A boiler or industrial furnace burning hazardous waste shall not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) after correction to a stack gas concentration of seven (7) percent oxygen, using procedures prescribed in Methods 1 to 5 of Appendix A to 40 C.F.R. Part 60, and Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401 KAR 36.025.

(2) An owner or operator meeting the requirements of Section 10(2) of this administrative regulation for the low-risk waste exemption shall be exempt from the particulate matter standard.

(3) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 3 of this administrative regulation) shall be regarded as compliance with this section. However, evidence that compliance with these permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and reissuance of a permit under Section 2 of 401 KAR 38.040.

Section 7. Standards to Control Metals Emissions (1) General. The owner or operator shall comply with the metals standards provided by subsections (2), (3), (4), (5), or (6) of this section for each metal listed in subsection (2) of this section that is present in the hazardous waste at detectable levels using analytical procedures specified in test methods for evaluating solid waste, physical/chemical methods (SW-846).

(2) Tier 1 feed rate screening limits. Feed rate screening limits for metals are specified in Section 1 of 401 KAR 36.025 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in paragraph (g) of this subsection.

(a) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in Section 1 of 401 KAR 36.025.

1. The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either:

- a. An hourly rolling average as defined in Section 3(5)(f)1b of this administrative regulation, or
- b. An instantaneous limit not to be exceeded at any time.

2. The feed rate screening limit for lead is based on one of the following:

- a. An hourly rolling average as defined in Section 3(5)(f)1b of this administrative regulation;
- b. An averaging period of two (2) to twenty-four (24) hours as defined in Section 3(5)(f)2 of this administrative regulation with an instantaneous feed rate limit not to exceed ten (10) times the feed rate that would be allowed on an hourly rolling average basis, or
- c. An instantaneous limit not to be exceeded at any time.

(b) Carcinogenic metals.

- 1. The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in Section 1 of 401 KAR 36.025. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in Section 1 of 401 KAR 36.025 shall not exceed one (1.0), as provided by the following equation:

$$\sum_{i=1}^n \frac{AFR_{(i)}}{FRSL_{(i)}} \leq 1$$

where:

n = number of carcinogenic metals

AFR = actual feed rate to the device for metal "i"

FRSL = feed rate screening limit provided by Section 1 of 401 KAR 36.025 for metal "i".

2. The feed rate screening limits for the carcinogenic metals are based on either:

a. An hourly rolling average; or

b. An averaging period of two (2) to twenty four (24) hours as defined in Section 3(5)(f)2 of this administrative regulation with an instantaneous feed rate limit not to exceed ten (10) times the feed rate that would be allowed on an hourly rolling average basis.

(c) TESH.

1. The terrain adjusted effective stack height is determined according to the following equation:

$$TESH = H_a + H_1 - T_r$$

where:

H_a = Actual physical stack height

H_1 = Plume rise as determined from Section 6 of 401 KAR 36.025

as a function of stack flow rate and stack gas exhaust temperature.

T_r = Terrain rise within five kilometers of the stack.

2. The stack height (H_a) shall not exceed good engineering practice as specified in 40 C.F.R. 61.100(ii).

3. If the TESH for a particular facility is not listed in 401 KAR 36.025, the nearest lower TESH listed in the table shall be used. If the TESH is four (4) meters or less, a value of four (4) meters shall be used.

(d) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within five (5) kilometers of the stack equals or exceeds the elevation of the physical stack height (H_a) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from USGS 7.5-minute topographic maps of the area surrounding the facility.

(e) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in Section 8(1)(a) or (b) of 401 KAR 36.025 shall be used.

(f) Multiple stacks. Owners and operators of facilities with more than one (1) on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls of metals emissions under a hazardous waste operating permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst case stack based on dispersion characteristics. The worst case stack is determined from the following equation as applied to each stack:

$$K = HVT$$

Where:

K = a parameter accounting for relative influence of stack height and plume rise;

H = physical stack height (meters);

V = stack gas flow rate (m^3 /second); and

T = exhaust temperature ($^{\circ}K$).

The stack with the lowest value of K is the worst case stack.

(g) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by subsection (4) of this section or with the adjusted Tier I feed rate screening limits provided by subsection (5) of this section.

1. The device is located in a narrow valley less than one (1) kilometer wide;

2. The device has a stack taller than twenty (20) meters and is located such that the terrain rises to the physical height within one (1) kilometer of the facility;

3. The device has a stack taller than twenty (20) meters and is located within five (5) kilometers of a shoreline of a large body of water such as an ocean or large lake;

4. The physical stack height of any stack is less than two and one half (2.5) times the height of any building within five building

heights or five (5) projected building widths of the stack and the distance from the stack to the closest boundary is within five (5) building heights or five (5) projected building widths of the associated building; or

5. The cabinet determines that standards based on site-specific dispersion modeling are required.

(h) Implementation. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate screening limits are not exceeded.

(3) Tier II emission rate screening limits. Emission rate screening limits are specified in Section 1 of 401 KAR 36.025 as a function of terrain adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (2)(g) of this section.

(a) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in Section 1 of 401 KAR 36.025.

(b) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in Section 1 of 401 KAR 36.025. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in Section 1 of 401 KAR 36.025 shall not exceed one (1.0), as provided by the following equation:

$$\sum_{i=1}^n \frac{AER_{(i)}}{ERSL_{(i)}} \leq 1$$

where:

n = number of carcinogenic metals

AER = actual emission rate for metal "i"

ERSL = emission rate screening limit provided by Section 1 of 401 KAR 36.025 for metal "i".

(c) Implementation. The emission rate limits shall be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (2)(a)1 and 2 and (b)2 of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 3 or 4 of this administrative regulation are not exceeded.

(d) Definitions and limitations. The definitions and limitations provided by subsection (2) of this section for the following terms also apply to the Tier II emission rate screening limits provided by this subsection: terrain adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(e) Multiple stacks.

1. Owners and operators of facilities with more than one (1) on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a hazardous waste operating permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst case stack based on dispersion characteristics.

2. The worst case stack is determined by procedures provided in subsection (2)(f) of this section.

3. For each metal, the total emissions of the metal from these stacks shall not exceed the screening limit for the worst case stack.

(4) Tier III and adjusted Tier I site specific risk assessment. The requirements of this subsection apply to facilities complying with either the Tier III or adjusted Tier I controls, except where specified otherwise.

(a) General. Conformance with the Tier III metals controls shall be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or adjusted Tier I metals controls shall be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambi-

ent levels are not exceeded.

(b) ~~Acceptable ambient levels. Sections 4 or 5 of 401 KAR 36.025 list the acceptable ambient levels for purposes of this administrative regulation. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10^{-6} risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one (1) carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in paragraph (c) of this subsection.~~

(c) ~~Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations shall be considered if a person resides on-site) to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed one (1.0) as determined by the following equation:~~

$$\sum_{i=1}^n \frac{\text{Predicted Ambient Concentration}_i}{\text{Risk-Specific Dose}_i} \leq 1.0$$

where n = number of carcinogenic metals.

(d) ~~Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).~~

(e) ~~Multiple stacks. Owners and operators of facilities with more than one (1) on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a hazardous waste operating permit or interim status controls shall conduct emissions testing (except that facilities complying with adjusted Tier I controls need not conduct emissions testing) and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.~~

(f) ~~Implementation. Under Tier III, the metals controls shall be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (2)(a)1 and 2 and (b)2 of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 3 or 4 of this administrative regulation are not exceeded.~~

(g) ~~Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by Section 1 of 401 KAR 36.025 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient levels provided by Sections 4 and 5 of 401 KAR 36.025 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in subsection (2)(b) of this section.~~

(h) ~~Alternative implementation approaches.~~

(a) ~~The cabinet may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by subsection (3) or (4) of this section alternative to monitoring the feed rate of metals in each feedstream.~~

(b) ~~The emission limits provided by subsection (4) of this section shall be determined as follows:~~

1. ~~For each noncarcinogenic metal, by back-calculating from the RAC provided in Section 4 of 401 KAR 36.025 to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (8) of this section; and~~

2. ~~For each carcinogenic metal by:~~

a. ~~Back-calculating from the RSD provided in Section 5 of 401 KAR 36.025 to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance~~

~~with subsection (8) of this section; and~~

b. ~~If more than one (1) carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by clause a of this subparagraph such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed one (1.0).~~

(i) ~~Emission testing.~~

(a) ~~General. Emission testing for metals shall be conducted using the Multiple Metals Train as described in Section 11 of 401 KAR 36.025.~~

(b) ~~Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Section 11 of 401 KAR 36.025.~~

(c) ~~Dispersion modeling. Dispersion modeling required under this section must be conducted according to methods recommended in Appendix W of 40 C.F.R. Part 61 ("Guideline on Air Quality Models (Revised)" and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure," provided in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11(1) of 401 KAR 36.025, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, (Revised) incorporated in 40 C.F.R. 260.11 which is adopted in Section 3 of 401 KAR 30.040 to predict the maximum annual average off-site ground level concentration. However, on-site concentrations shall be considered when a person resides on-site.~~

(d) ~~Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 3 of this administrative regulation) shall be regarded as compliance with this section. However, evidence that compliance with these permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and reissuance of a permit under Section 2 of 401 KAR 38.040.~~

~~Section 8. Standards to Control Hydrogen Chloride (HCl) and Chlorine Gas (Cl₂) Emissions. (1) General. The owner or operator shall comply with the hydrogen chloride (HCl) and chlorine (Cl₂) controls provided by subsections (2), (3), or (5) of this section.~~

(2) ~~Screening limits.~~

(a) ~~Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in Section 2 of 401 KAR 36.025 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.~~

(b) ~~Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl₂ are specified in Section 3 of 401 KAR 36.025 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl₂ shall not exceed the levels specified.~~

(c) ~~Definitions and limitations. The definitions and limitations provided by Section 7(2) of this administrative regulation for the following terms also apply to the screening limits provided by this subsection: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.~~

(d) ~~Multiple stacks. Owners and operators of facilities with more than one (1) on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl₂ emissions under a hazardous waste operating permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.~~

1. ~~The worst-case stack is determined by procedures provided in Section 7(2)(f) of this administrative regulation.~~

2. ~~Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.~~

3. ~~Under Tier II, the total emissions of HCl and Cl₂ from all~~

subject stacks shall not exceed the screening limit for the worst-case stack.

(3) Tier III site-specific risk assessments-

(a) General. Conformance with the Tier III controls shall be demonstrated by emissions testing to determine the emission rate for HCl and Cl₂, air dispersion modeling to predict the maximum annual average off-site ground-level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(b) Acceptable ambient levels. Section 4 of 401-KAR 36.025 lists the reference air concentrations (RACs) for HCl (7 micrograms per cubic meter) and Cl₂ (0.4 micrograms per cubic meter).

(c) Multiple stacks. Owners and operators of facilities with more than one (1) on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl₂ emissions under a hazardous waste operating permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl₂.

(4) Averaging periods. The HCl and Cl₂ controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chloride and chlorine is limited to the Tier I screening limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine is limited to the feed rates during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate limits are based on either:

(a) An hourly rolling average as defined in Section 3(5)(f) of this administrative regulation; or

(b) An instantaneous basis not to be exceeded at any time.

(b) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by Section 2 of 401-KAR 36.025 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for Cl₂ provided by Section 4 of 401-KAR 36.025 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(6) Emissions testing. Emissions testing for HCl and Cl₂ shall be conducted using the procedures described in Appendix IX of 40 C.F.R. Part 266, adopted in Section 11 of 401-KAR 36.025.

(7) Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of Section 7(8) of this administrative regulation.

(8) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 3 of this administrative regulation) shall be regarded as compliance with this section. However, evidence that compliance with these permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and reissuance of a permit under Section 2 of 401-KAR 38.040.

Section 9 Small Quantity On-site Burner Exemption. (1) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of this administrative regulation provided that:

(a) The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in Section 7(2)(c) of this administrative regulation:

Terrain-adjusted Effective stack height of device (meters)	Allowable Hazardous Waste Burning Rate (gallons/month)	Terrain-Adjusted effective stack height of device (meters)	Allowable Hazardous Waste Burning Rate (gallons/month)
0 to 3.9	0	40.0 to 44.9	210

4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400
10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760
18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

(b) The maximum hazardous waste firing rate does not exceed at any time one (1) percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste;

(c) The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(d) The hazardous waste fuel does not contain (and is not derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(2) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with subsection (1) of this section.

(3) Multiple stacks. If an owner or operator burns hazardous waste in more than one (1) on-site boiler or industrial furnace exempt under this administrative regulation, the quantity limits provided by subsection (1)(a) of this section are implemented according to the following equation:

$$\frac{\sum_{i=1}^n \text{Actual Quantity Burned}_i}{\sum_{i=1}^n \text{Allowable Quantity Burned}_i} \leq 1.0$$

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device "i";

Allowable Quantity Burned means the maximum allowable exempt quantity for stack "i" from the table in subsection (1)(a) of this section.

(4) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under this section shall provide a one (1) time signed, written notice to the cabinet indicating the following:

(a) The combustion unit is operating as a small quantity burner of hazardous waste;

(b) The owner and operator is in compliance with the requirements of this administrative regulation; and

(c) The maximum quantity of hazardous waste that the facility may burn per month as provided by subsection (1)(a) of this section.

(5) Recordkeeping requirements. The owner or operator shall maintain at the facility for at least three (3) years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of this section. At a minimum, these records shall indicate the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

Section 10 Low Risk Waste Exemption. (1) Waiver of DRE standard. The DRE standard of Section 5(1) of this administrative regulation does not apply if the boiler or industrial furnace is operated in conformance with paragraph (a) of this subsection and the owner or operator demonstrates by procedures prescribed in paragraph (b) of this subsection that the burning shall not result in unacceptable adverse health effects.

(a) The device shall be operated as follows:

1. A minimum of fifty (50) percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the cabinet on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed "primary fuel" for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The fifty (50) percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

2. Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb;

3. The hazardous waste is fired directly into the primary fuel flame zone of the combustion chamber; and

4. The device operates in conformance with the carbon monoxide controls provided by Section 5(2)(a) of this administrative regulation. Devices subject to the exemption provided by this section are not eligible for the alternative carbon monoxide controls provided by Section 5(3) of this administrative regulation.

(b) Procedures to demonstrate that the hazardous waste burning shall not pose unacceptable adverse public health effects are as follows:

1. Identify and quantify those nonmetal compounds listed in Section 8 of 401 KAR 36.025 that could reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained;

2. Calculate reasonable, worst case emission rates for each constituent identified in subparagraph 1 of this paragraph by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that one-tenth (0.1) percent of the mass weight of each constituent fed to the device is emitted.

3. For each constituent identified in subparagraph 1 of this paragraph, use emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

a. Dispersion modeling shall be conducted using methods specified in Section 7(8) of this administrative regulation.

b. Owners and operators of facilities with more than one (1) on-site stack from a boiler or industrial furnace that is exempt under this section shall conduct dispersion modeling of emissions from all stacks exempt under this section to predict ambient levels prescribed by this subsection.

4. Ground level concentrations of constituents predicted under subparagraph 3 of this paragraph shall not exceed the following levels:

a. For the noncarcinogenic compounds listed in Section 4 of 401 KAR 36.025, the levels established in Section 4 of 401 KAR 36.025.

b. For the carcinogenic compounds listed in Section 5 of 401 KAR 36.025, the sum for all constituents of the ratios of the actual ground level concentration to the level established in Section 5 of 401 KAR 36.025 shall not exceed one (1.0), and

c. For constituents not listed in Sections 4 or 5 of 401 KAR 36.025, one-tenth (0.1) micrograms per cubic meter.

(2) Waiver of particulate matter standard. The particulate matter standard of Section 6 of this administrative regulation shall not apply if:

(a) The DRE standard is waived under subsection (1) of this section; and

(b) The owner or operator complies with the Tier I or adjusted Tier I metals feed rate screening limits provided by Section 7(2) or (5) of this administrative regulation.

Section 11. Waiver of DRE Trial Burn for Boilers. Boilers that operate under the special requirements of this section, and that do not burn hazardous waste containing (or derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027, are considered to be in conformance with the DRE standard of Section 5(1) of this administrative regulation, and a trial burn to demonstrate DRE is waived. When burning hazardous waste:

(1) A minimum of fifty (50) percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the cabinet on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel.

Such fuels are termed "primary fuel" for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The fifty (50) percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(2) Boiler load shall not be less than forty (40) percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input;

(3) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a burner where hazardous waste is fired shall have a heating value of at least 8,000 Btu/lb, as fired;

(4) The device shall operate in conformance with the carbon monoxide standard provided by Section 5(2)(a) of this administrative regulation. Boilers subject to the waiver of the DRE trial burn provided by this section are not eligible for the alternative carbon monoxide standard provided by Section 5(3) of this administrative regulation;

(5) The boiler shall be a water tube type boiler that does not feed fuel using a stoker or stoker type mechanism; and

(6) The hazardous waste shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

(a) Viscosity. The viscosity of the hazardous waste fuel as fired shall not exceed 300 SSU;

(b) Particle size. When a high pressure air or steam atomizer, low pressure atomizer, or mechanical atomizer is used, seventy (70) percent of the hazardous waste fuel shall pass through a 200 mesh (seventy-four (74) micron) screen, and when a rotary cup atomizer is used, seventy (70) percent of the hazardous waste shall pass through a 100 mesh (150 micron) screen;

(c) Mechanical atomization systems. Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

(d) Rotary cup atomization systems. Fuel flow rate through a rotary cup atomization system shall be maintained within the design range taking into account the viscosity and volatility of the fuel.

Section 12. Standards for Direct Transfer. (1) Applicability. This administrative regulation applies to owners and operators of boilers and industrial furnaces subject to Section 3 or 4 of this administrative regulation if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(2) Definition.

(a) Terms previously defined in this subsection may be found in 401 KAR 36.005.

(b) This section references several requirements provided in 401 KAR 34:180 and 34:190 and 401 KAR 35:180 and 35:190. For purposes of this section, the term "tank systems" in those referenced requirements means direct transfer equipment as defined in paragraph (a) of this subsection.

(3) General operating requirements.

(a) No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace.

(b) Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak.

(c) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not:

1. Generate extreme heat or pressure, fire, explosion, or violent reactions;

2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4. Damage the structural integrity of the container or direct transfer equipment containing the waste;

5. Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by Sections 5 to 8 of this

administrative regulation; or

6. Threaten human health or the environment.

(d) Hazardous waste shall not be placed in direct transfer equipment, if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

(e) The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum:

1. Spill prevention controls (for example, check valves and dry discount couplings); and

2. Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment.

(4) Areas where direct transfer vehicles (containers) are located. Areas where direct transfer vehicles (containers) are located. Applying the definition of container under this section, owners and operators shall comply with the following requirements:

(a) The containment requirements of Section 6 of 401 KAR 34.180.

(b) The use and management requirements of 401 KAR 35.180, except for Sections 1 and 5, and except that in lieu of the special requirements of Section 6 of 401 KAR 35.180 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) "Flammable and Combustible Liquids Code" (1977 or 1981). The owner or operator shall obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes, and

(c) The closure requirements of Section 9 of 401 KAR 34.180.

(5) Direct transfer equipment. Direct transfer equipment shall meet the following requirements:

(a) Secondary containment. Owners and operators shall comply with the secondary containment requirements of Section 4 of 401 KAR 35.190, except for subsections (1), (4), (5), and (9) of 401 KAR 35.190 as follows:

1. For all new direct transfer equipment, prior to their being put into service; and

2. For existing direct transfer equipment within two (2) years after August 21, 1991.

(b) Requirements prior to meeting secondary containment requirements.

1. For existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use. The owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by an engineer in accordance with Section 7(4) of 401 KAR 39.070 that attests to the equipment's integrity by August 21, 1992.

2. This assessment shall determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred to ensure that it shall not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

a. Design standard(s), if available, according to which the direct transfer equipment was constructed;

b. Hazardous characteristics of the waste(s) that have been or will be handled;

c. Existing corrosion protection measures;

d. Documented age of the equipment, if available, (otherwise, an estimate of the age); and

e. Results of a leak test or other integrity examination such that the effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for.

3. If, as a result of the assessment specified above, the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of Section 7(1) and (2) of 401 KAR 35.190.

(c) Inspections and recordkeeping.

1. The owner or operator shall inspect at least once each operating hour when hazardous waste is being transferred from the transport vehicle (container) to the boiler or industrial furnace:

a. Overfill and spill control equipment (for example, waste feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

b. The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste (for example, wet spots and dead vegetation); and

c. Data gathered from monitoring equipment and leak detection equipment, (for example, pressure and temperature gauges) to ensure that the direct transfer equipment is being operated according to its design.

2. The owner or operator shall inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided by Section 6(2) of 401 KAR 35.190.

3. Records of inspections made under this subsection shall be maintained in the operating record at the facility, and available for inspection for at least three (3) years from the date of the inspection.

(d) Design and installation of new ancillary equipment. Owners and operators shall comply with the requirements of Section 3 of 401 KAR 35.190.

(e) Response to leaks or spills. Owners and operators shall comply with the requirements of Section 7 of 401 KAR 35.190.

(f) Closure. Owners and operators shall comply with the requirements of Section 8 of 401 KAR 35.190 except for Section 8(3)(b) to (d) of 401 KAR 35.190.

Section 13 Regulation of Residue. A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under Section 4(2)(d), (g) or (h) of 401 KAR 31.010 unless the device and the owner or operator meet the following requirements:

(1) The device meets the following criteria:

(a) Boilers. Boilers shall burn at least fifty (50) percent coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

(b) Ore or mineral furnaces. Industrial furnaces subject to Section 4(2)(g) of 401 KAR 31.010 shall process at least fifty (50) percent by weight normal, nonhazardous raw materials;

(c) Cement kilns. Cement kilns shall process at least fifty (50) percent by weight normal cement production raw materials.

(2) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:

(a) Comparison of waste derived residue with normal residue. The waste derived residue shall not contain 401 KAR 31.170 constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in Section 8 of 401 KAR 36.025 that may be generated as products of incomplete combustion. Sampling and analyses shall be in conformance with procedures prescribed in test methods for evaluating solid waste, physical/chemical methods.

1. Normal residue. Concentrations of toxic constituents of concern in normal residue shall be determined based on analyses of a minimum of ten (10) samples representing a minimum of ten (10) days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed twenty-four (24) hours. The upper tolerance limit (at ninety-five (95) percent confidence with a ninety-five (95) percent proportion of the sample distribution) of the concentration in the normal residue shall be considered the statistically derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically derived concentrations of the toxic constituents of concern in the normal residue, the statistically derived concentrations shall be revised or statistically derived concentrations of toxic constituents in normal residue shall be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in "Statistical Methodology for Bevill Residue Determinations" in Appendix IX of 40 C.F.R.

Part 266, adopted in Section 11 of 401 KAR 36.025.

2. ~~Waste-derived residue. Waste derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each twenty-four (24) hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under subparagraph 1 of this paragraph. If so, hazardous waste burning has significantly affected the residue and the residue shall not be excluded from the definition of a hazardous waste. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one (1) or more samples obtained over a twenty-four (24) hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed twenty-four (24) hours. If more than one (1) sample is analyzed to characterize waste-derived residues generated over a twenty-four (24) period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results shall be disregarded; or~~

(b) ~~Comparisons of waste-derived residue concentrations with health-based limits.~~

1. ~~Nonmetal constituents. The concentrations of nonmetal toxic constituents of concern (specified in paragraph (a) of this subsection) in the waste-derived residue shall not exceed the health-based levels specified in Section 7 of 401 KAR 36.025 or the level of detection (using analytical procedures prescribed in SW 846, Third Edition, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010), whichever is higher. If a health-based limit for a constituent of concern is not listed in Section 7 of 401 KAR 36.025, then a limit of 0.002 micrograms per kilogram or the level of detection (using analytical procedures prescribed in SW 846), whichever is higher, shall be used. If the owner or operator is unable to demonstrate conformance with the levels specified in Section 7 of 401 KAR 36.025 (and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 in Section 7 of 401 KAR 36.025), for these constituents specified in paragraph (a) of this subsection, the owner or operator shall comply with alternative levels defined as the land disposal restriction limits specified in Section 1 of 401 KAR 37.040 for F039 nonwastewaters. In complying with these alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best good faith efforts consistent with applicable Kentucky administrative regulations, the owner or operator is deemed to be in compliance for that constituent. The owner or operator may demonstrate such good faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by Section 1 of 401 KAR 37.040 for F039 nonwastewaters; and~~

2. ~~Metal constituents. The concentration of metals in an extract obtained using the Toxicity Characteristic Leaching Procedure of Section 5 of 401 KAR 31.030 shall not exceed the levels specified in Section 7 of 401 KAR 36.025; and~~

3. ~~Sampling and analysis. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each twenty-four (24) hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one (1) or more samples obtained over a twenty-four (24) hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed twenty-four (24) hours. If more than one (1) sample is analyzed to characterize waste-derived residues generated over a twenty-four (24) hour period, the concentration of each toxic constituent shall be the arithmetic~~

~~mean of the concentrations in the samples. No results shall be disregarded.~~

(3) ~~Records sufficient to document compliance with the provisions of this administrative regulation shall be retained until closure of the boiler or industrial furnace. At a minimum, the following shall be recorded:~~

(a) ~~Levels of constituents in 401 KAR 31-170, that are present in waste-derived residue;~~

(b) ~~If the waste-derived residue is compared with normal residue under subsection (2)(a) of this section.~~

1. ~~The levels of constituents in 401 KAR 31:170, that are present in normal residues; and~~

2. ~~Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 36.025. Tables and procedures associated with the standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. Part 266, Appendices I-XIII

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530, ~~40 C.F.R. Part 266, Appendices I-XIII]~~

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 and 224.46-530 require the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation [implements [To implement] provisions of KRS 224.46-520 and 224.46-530, and] establishes [to establish] the standards of [Appendices I to XIII of] 40 C.F.R. Part 266. This administrative regulation is equivalent to the corresponding federal regulations, except Kentucky has more stringent requirements than those in 40 C.F.R. 266, Appendix 1, Tables 1-D and 1-E [used in Appendix I, Tables 1-D and 1-E of the 40 C.F.R. 266 Appendices] The Kentucky-specific tables are [an order of magnitude] more stringent due to the Kentucky nsk-specific doses [being] based on 10⁷ rather than [ve] 10⁵.

Section 1 Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 266, Appendix I, effective July 1, 2005 [with the following modifications, exceptions, and additions as set forth in this section].

(2) The requirements established in this subsection shall be in lieu of 40 C.F.R. 266, Appendix I, [contained within] Tables I-D and I-E [of 266 Appendix I shall be replaced with the following]:

(a) Table I-D[4-D] Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain - Values for use in Urban Areas:

Terrain adjusted eff. stack ht (m)	Values for use in urban areas				Values for use in rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	4.6E-02	1.1E-01	1.7E-02	8.2E-02	2.4E-02	5.8E-02	8.6E-03	4.3E-02
6	5.4E-02	1.3E-01	1.9E-02	9.4E-02	2.8E-02	6.6E-02	1.0E-02	5.0E-02
8	6.0E-02	1.4E-01	2.2E-02	1.1E-01	3.2E-02	7.6E-02	1.1E-02	5.6E-02
10	6.8E-02	1.6E-01	2.4E-02	1.2E-01	3.6E-02	8.6E-02	1.3E-02	6.4E-02

12	7 6E-02	1.8E-01	2.7E-02	1.4E-01	4 3E-02	1 1E-01	1 6E-02	7 8E-02
14	8 6E-02	2 1E-01	3 1E-02	1.5E-01	5 4E-02	1.3E-01	2 0E-02	9 6E-02
16	9 6E-02	2 3E-01	3 5E-02	1 7E-01	6 8E-02	1 6E-01	2 4E-02	1 2E-01
18	1 1E-01	2 6E-01	4 0E-02	2 0E-01	8 2E-02	2 0E-01	3 0E-02	1 5E-01
20	1 2E-01	3 0E-01	4 4E-02	2 2E-01	1 0E-01	2 5E-01	3 7E-02	1 9E-01
22	1 4E-01	3 4E-01	5 0E-02	2 5E-01	1 3E-01	3 2E-01	4 8E-02	2 4E-01
24	1 6E-01	3 9E-01	5 8E-02	2 8E-01	1 7E-01	4 0E-01	6 0E-02	3 0E-01
26	1 8E-01	4 3E-01	6 4E-02	3 2E-01	2 1E-01	5 0E-01	7 6E-02	3 9E-01
28	2 0E-01	4 8E-01	7 2E-02	3 6E-01	2 7E-01	6 4E-01	9 8E-02	5 0E-01
30	2 3E-01	5 4E-01	8 2E-02	4 0E-01	3 5E-01	8 2E-01	1 2E-01	6 2E-01
35	3 0E-01	6 8E-01	1 0E-01	5 4E-01	5 4E-01	1 3E+00	1 9E-01	9 6E-01
40	3 6E-01	9 0E-01	1 3E-01	6 8E-01	8 2E-01	2 0E+00	3 0E-01	1 5E+00
45	4 6E-01	1 1E+00	1 7E-01	8 6E-01	1 1E+00	2 8E+00	4 2E-01	2 1E+00
50	6 0E-01	1 4E+00	2 2E-01	1 1E+00	1 5E+00	3 7E+00	5 4E-01	2 8E+00
55	7 6E-01	1 8E+00	2 7E-01	1 4E+00	2 0E+00	5 0E+00	7 2E-01	3 6E+00
60	9 4E-01	2 2E+00	3 4E-01	1 7E+00	2 7E+00	6 4E+00	9 6E-01	4 8E+00
65	1 1E+00	2 8E+00	4 2E-01	2 1E+00	3 6E+00	8 6E+00	1 3E+00	6 4E+00
70	1 3E+00	3 1E+00	4 6E-01	2 4E+00	4 3E+00	1 0E+01	1 5E+00	7 6E+00
75	1 5E+00	3 6E+00	5 4E-01	2 7E+00	5 0E+00	1 2E+01	1 8E+00	9 0E+00
80	1 7E+00	4 0E+00	6 0E-01	3 0E+00	6 0E+00	1 4E+01	2 2E+00	1 1E+01
85	1 9E+00	4 6E+00	6 8E-01	3 4E+00	7 2E+00	1 7E+01	2 6E+00	1 3E+01
90	2 2E+00	5 0E+00	7 8E-01	3 9E+00	8 6E+00	2 0E+01	3 0E+00	1 5E+01
95	2 5E+00	5 8E+00	9 0E-01	4 4E+00	1 0E+01	2 4E+01	3 6E+00	1 8E+01
100	2 8E+00	6 8E+00	1 0E+00	5 0E+00	1 2E+01	2 9E+01	4 3E+00	2 2E+01
105	3 2E+00	7 6E+00	1 1E+00	5 6E+00	1 4E+01	3 4E+01	5 0E+00	2 6E+01
110	3 6E+00	8 6E+00	1 3E+00	6 4E+00	1 7E+01	4 0E+01	6 0E+00	3 0E+01
115	4 0E+00	9 6E+00	1 5E+00	7 2E+00	2 0E+01	4 8E+01	7 2E+00	3 6E+01
120	4 6E+00	1 1E+01	1 7E+00	8 2E+00	2 4E+01	5 8E+01	8 6E+00	4 3E+01

(b) Table I-E[1-E]. Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain: [-] Values for use in Urban and Rural Areas:

Terrain adjusted eff. stack ht. (m)	Values for use in urban and rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	1.1E-02	2.6E-02	4.0E-03	2.0E-02
6	1.6E-02	3.9E-02	5.8E-03	2.9E-02
8	2.4E-02	5.8E-02	8.6E-03	4.3E-02
10	3.5E-02	8.2E-02	1.3E-02	6.2E-02
12	4.3E-02	1.0E-01	1.5E-02	7.6E-02
14	5.0E-02	1.3E-01	1.9E-02	9.4E-02
16	6.0E-02	1.4E-01	2.2E-02	1.1E-01
18	6.8E-02	1.6E-01	2.4E-02	1.2E-01
20	7.6E-02	1.8E-01	2.7E-02	1.3E-01
22	8.2E-02	1.9E-01	3.0E-02	1.5E-01
24	9.0E-02	2.1E-01	3.3E-02	1.6E-01
26	1.0E-01	2.4E-01	3.6E-02	1.8E-01
28	1.1E-01	2.7E-01	4.0E-02	2.0E-01
30	1.2E-01	3.0E-01	4.4E-02	2.2E-01
35	1.5E-01	3.7E-01	5.4E-02	2.7E-01
40	1.9E-01	4.6E-01	6.8E-02	3.4E-01
45	2.4E-01	5.4E-01	8.4E-02	4.2E-01
50	2.9E-01	6.8E-01	1.0E-01	5.0E-01
55	3.5E-01	8.4E-01	1.3E-01	6.4E-01
60	4.3E-01	1.0E+00	1.5E-01	7.8E-01
65	5.4E-01	1.3E+00	1.9E-01	9.6E-01
70	6.0E-01	1.4E+00	2.2E-01	1.1E+00
75	6.8E-01	1.6E+00	2.4E-01	1.2E+00
80	7.6E-01	1.8E+00	2.7E-01	1.3E+00
85	8.2E-01	2.0E+00	3.0E-01	1.5E+00
90	9.4E-01	2.3E+00	3.4E-01	1.7E+00
95	1.0E+00	2.5E+00	4.0E-01	1.9E+00
100	1.2E+00	2.8E+00	4.3E-01	2.1E+00
105	1.3E+00	3.2E+00	4.8E-01	2.4E+00
110	1.5E+00	3.5E+00	5.4E-01	2.7E+00
115	1.7E+00	4.0E+00	6.0E-01	3.0E+00
120	1.9E+00	4.4E+00	6.4E-01	3.3E+00

Section 2 Tier I Feed Rate Screening Limits for Total Chlorine. The subject matter shall be governed by 40 C.F.R. 266, Appendix II, effective July 1, 2005.

Section 3 Tier II Emissions Rate Screening Limits for Free Chlorine and Hydrogen Chloride. The subject matter shall be governed by 40 C.F.R. 266, Appendix III, effective July 1, 2005.

Section 4. Reference Air Concentrations. The subject matter shall be governed by 40 C.F.R. 266, Appendix IV, effective July 1, 2005.

Section 5 Risk specific doses (10⁻⁶) (RSD) shall be as follows:

Constituent	CAS No.	Unit risk (m3/ug)	RSD (ug/m3)
Acrylamide	79-06-1	1.3E-02	7.7E-04
Acrylonitrile	107-13-1	6.8E-04	1.5E-02
Aldrin	309-00-2	4.9E-02	2.0E-04
Aniline	62-53-3	7.4E-05	1.4E+01
Arsenic	7440-38-2	4.3E-02	2.3E-04
Benz(a)anthracene	56-55-3	8.9E-03	1.1E-03
Benzene	71-43-2	8.3E-05	1.2E+01
Benzidine	92-87-5	6.7E-01	1.5E-05
Benzo(a)pyrene	50-32-8	3.3E-02	3.0E-04
Beryllium	7440-41-7	2.4E-02	4.2E-04
Bis(2-chloroethyl)ether	111-44-4	3.3E-03	3.0E-03
Bis(chloromethyl)ether	542-88-1	6.2E-01	1.6E-05
Bis(2-ethylhexyl)-phthalate	117-81-7	2.4E-06	4.2E+02
1,3-Butadiene	106-99-0	2.8E-03	3.6E-03
Cadmium	7440-43-9	1.8E-02	5.6E-04
Carbon Tetrachloride	56-23-5	1.5E-04	6.7E-0
Chlordane	57-74-9	3.7E-03	2.7E-03
Chloroform	67-66-3	2.3E-04	4.3E-02
Chloromethane	74-87-3	3.6E-05	2.8E+01
Chromium VI	7440-47-3	1.2E-01	8.3E-05
DDT	50-29-3	9.7E-04	1.0E-02

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Dibenz(a,h)anthracene	53-70-3	1.4E-01	7.1E-05
1,2-Dibromo-3-chloropropane	96-12-8	6.3E-02	1.6E-04
1,2-Dibromoethane	106-93-4	2.2E-03	4.5E-03
1,1-Dichloroethane	75-34-3	2.6E-04	3.8E-02
1,2-Dichloroethane	107-06-2	2.6E-04	3.8E-02
1,1-Dichloroethylene	75-35-4	5.0E-04	2.0E-02
1,3-Dichloropropene	542-75-6	3.5E-0	2.9E-06
Dieldrin	60-57-1	4.6E-02	2.2E-04
Diethylstilbestrol	56-53-1	1.4E-0	7.1E-06
Dimethylnitrosamine	62-75-9	1.4E-01	7.1E-05
2,4-Dinitrotoluene	121-14-2	8.8E-04	1.1E-02
1,2-Diphenylhydrazine	122-66-7	2.2E-03	4.5E-03
1,4-Dioxane	123-91-1	1.4E-05	7.1E+01
Epichlorohydrin	106-89-8	1.2E-05	8.3E+01
Ethylene Oxide	75-21-8	1.0E-03	1.0E-02
Ethylene Dibromide	106-93-4	2.2E-03	4.5E-03
Formaldehyde	50-00-0	1.3E-04	7.7E-02
Heptachlor	76-44-8	1.3E-02	7.7E-04
Heptachlor Epoxide	1024-57-3	2.6E-02	3.8E-04
Hexachlorobenzene	118-74-1	4.9E-03	2.0E-03
Hexachlorobutadiene	87-68-3	2.0E-04	5.0E-02
Alpha-hexachlorocyclohexane	319-84-6	1.8E-02	5.6E-04
Beta-hexachlorocyclohexane	319-85-7	5.3E-03	1.9E-03
Gamma-hexachlorocyclohexane	58-89-9	3.8E-03	2.6E-03
Hexachlorocyclohexane, Technical		5.1E-03	2.0E-03
Hexachlorodibenzo-p-dioxin(1,2 Mixture)		1.3E+1	7.7E-07
Hexachloroethane	67-72-1	4.0E-05	2.5E+01
Hydrazine	302-01-2	2.9E-02	3.4E-04
Hydrazine Sulfate	302-01-2	2.9E-02	3.4E-04
3-Methylcholanthrene	56-49-5	2.7E-02	3.7E-04
Methyl Hydrazine	60-34-4	3.1E-03	3.2E-03
Methylene Chloride	75-09-2	4.1E-05	2.4E+01
4,4'-Methylene-bis-2-chloroaniline	101-14-4	4.7E-04	2.1E-02
Nickel	7440-02-0	2.4E-03	4.2E-03
Nickel Refinery Dust	7440-02-0	2.4E-03	4.2E-03
Nickel Subsulfide	12035-72-2	4.8E-03	2.1E-03
2-Nitropropane	79-46-9	2.7E-01	3.7E-05
N-Nitroso-n-butylamine	924-16-3	1.6E-02	6.3E-04
N-Nitroso-n-methylurea	684-93-5	8.6E-01	1.2E-05
N-Nitrosodiethylamine	55-18-5	4.3E-01	2.3E-05
N-Nitrosopyrrolidine	930-55-2	6.1E-03	1.6E-03
Pentachloronitroben-	82-68-8	7.3E-04	1.4E-02

zene			
PCBs	1336-36-3	1.2E-02	8.3E-04
Pronamide	23950-58-5	4.6E-05	2.2E+01
Reserpine	50-55-5	3.0E-02	3.3E-04
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	4.5E+0	2.2E-08
1,1,2,2-Tetrachloroethane	79-34-5	5.8E-04	1.7E-02
Tetrachloroethylene	127-18-4	4.8E-06	2.1E+02
Thiourea	62-56-6	5.5E-03	1.8E-03
1,1,2-Trichloroethane	79-00-5	1.6E-04	6.3E-02
Trichloroethylene	79-01-6	1.3E-05	7.7E+01
2,4,6-Trichlorophenol	88-06-2	5.7E-05	1.8E+01
Toxaphene	8001-35-2	3.2E-03	3.1E-03
Vinyl Chloride	75-01-4	7.1E-05	1.4E+01

Section 6 Stack Plume Rise (SPR). The subject matter shall be governed by 40 C.F.R. 266 Appendix VI, effective July 1, 2005.

Section 7. Health Based Limits for Exclusions of Waste-Derived Residues. The subject matter shall be governed by 40 C.F.R. 266, Appendix VII, effective July 1, 2005.

Section 8 Organic Compounds for Which Residues Shall Be Analyzed [Potential PICs for Determination of Exclusion of Waste-Derived Residues] The subject matter shall be governed by 40 C.F.R. 266, Appendix VIII, effective July 1, 2005.

Section 9 Methods Manual for Compliance with the BIF(Burning in Industrial Furnaces) Regulations. The subject matter shall be governed by 40 C.F.R. 266, Appendix IX, effective July 1, 2005.

Section 10 Lead-Bearing Materials that May be Processed in Exempt Lead Smelters. The subject matter shall be governed by 40 C.F.R. 266, Appendix XI, effective July 1, 2005.

Section 11. Nickel or Chromium-bearing Materials that May be Processed in Exempt Nickel-chromium Recovery Furnaces. The subject matter shall be governed by 40 C.F.R. 266, Appendix XII, effective July 1, 2005.

Section 12. Mercury Bearing Wastes that May be Processed in Exempt Mercury Recovery Units. The subject matter shall be governed by 40 C.F.R. 266, Appendix XIII, effective July 1, 2005.

[Section 1. Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals. (1) Table 1-A. Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Noncomplex Terrain - Values for Urban Areas:

Terrain-adjusted eff. Stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	6.0E+01	1.0E+04	1.8E+01	6.0E+01	6.0E+02	6.0E+01
6	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
8	7.6E+01	1.3E+04	2.3E+01	7.6E+01	7.6E+02	7.6E+01
10	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
12	9.6E+01	1.7E+04	3.0E+01	9.6E+01	9.6E+02	9.6E+01
14	1.1E+02	1.8E+04	3.4E+01	1.1E+02	1.1E+03	1.1E+02
16	1.3E+02	2.1E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02
18	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
20	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
22	1.8E+02	3.0E+04	5.4E+01	1.8E+02	1.8E+03	1.8E+02
24	2.0E+02	3.4E+04	6.0E+01	2.0E+02	2.0E+03	2.0E+02
26	2.3E+02	3.9E+04	6.8E+01	2.3E+02	2.3E+03	2.3E+02
28	2.6E+02	4.3E+04	7.8E+01	2.6E+02	2.6E+03	2.6E+02
30	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02

VOLUME 33, NUMBER 12 - JUNE 1, 2007

35	4.0E+02	6.6E+04	1.1E+02	4.0E+02	4.0E+03	4.0E+02
40	4.6E+02	7.8E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
45	6.0E+02	1.0E+05	1.8E+02	6.0E+02	6.0E+03	6.0E+02
50	7.8E+02	1.3E+05	2.3E+02	7.8E+02	7.8E+03	7.8E+02
55	9.6E+02	1.7E+05	3.0E+02	9.6E+02	9.6E+03	9.6E+02
60	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
65	1.5E+03	2.5E+05	4.3E+02	1.5E+03	1.5E+04	1.5E+03
70	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
75	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
80	2.2E+03	3.6E+05	6.4E+02	2.2E+03	2.2E+04	2.2E+03
85	2.5E+03	4.0E+05	7.6E+02	2.5E+03	2.5E+04	2.5E+03
90	2.8E+03	4.6E+05	8.2E+02	2.8E+03	2.8E+04	2.8E+03
95	3.2E+03	5.4E+05	9.6E+02	3.2E+03	3.2E+04	3.2E+03
100	3.6E+03	6.0E+05	1.1E+03	3.6E+03	3.6E+04	3.6E+03
105	4.0E+03	6.8E+05	1.2E+03	4.0E+03	4.0E+04	4.0E+03
110	4.6E+03	7.8E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
115	5.4E+03	8.6E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
120	6.0E+03	1.0E+06	1.8E+03	6.0E+03	6.0E+04	6.0E+03

(2) Table 1 B. Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Noncomplex Terrain - Values for Rural Areas:

Terrain-adjusted eff. Stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	3.1E+01	6.2E+03	9.4E+00	3.1E+01	3.1E+02	3.1E+01
6	3.6E+01	6.0E+03	1.1E+01	3.6E+01	3.6E+02	3.6E+01
8	4.0E+01	6.8E+03	1.2E+01	4.0E+01	4.0E+02	4.0E+01
10	4.6E+01	7.8E+03	1.4E+01	4.6E+01	4.6E+02	4.6E+01
12	5.8E+01	9.6E+03	1.7E+01	5.8E+01	5.8E+02	5.8E+01
14	6.8E+01	1.1E+04	2.1E+01	6.8E+01	6.8E+02	6.8E+01
16	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
18	1.1E+02	1.8E+04	3.2E+01	1.1E+02	1.1E+03	1.1E+02
20	1.3E+02	2.2E+04	4.0E+01	1.3E+02	1.3E+03	1.3E+02
22	1.7E+02	2.8E+04	5.0E+01	1.7E+02	1.7E+03	1.7E+02
24	2.2E+02	3.6E+04	6.4E+01	2.2E+02	2.2E+03	2.2E+02
26	2.8E+02	4.6E+04	8.2E+01	2.8E+02	2.8E+03	2.8E+02
28	3.5E+02	5.8E+04	1.0E+02	3.5E+02	3.5E+03	3.5E+02
30	4.3E+02	7.6E+04	1.3E+02	4.3E+02	4.3E+03	4.3E+02
35	7.2E+02	1.2E+05	2.1E+02	7.2E+02	7.2E+03	7.2E+02
40	1.1E+03	1.8E+05	3.2E+02	1.1E+03	1.1E+04	1.1E+03
45	1.5E+03	2.5E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
50	2.0E+03	3.3E+05	6.0E+02	2.0E+03	2.0E+04	2.0E+03
55	2.6E+03	4.4E+05	7.8E+02	2.6E+03	2.6E+04	2.6E+03
60	3.4E+03	5.8E+05	1.0E+03	3.4E+03	3.4E+04	3.4E+03
65	4.6E+03	7.6E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
70	5.4E+03	9.0E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
75	6.4E+03	1.1E+06	1.9E+03	6.4E+03	6.4E+04	6.4E+03
80	7.6E+03	1.3E+06	2.3E+03	7.6E+03	7.6E+04	7.6E+03
85	9.4E+03	1.6E+06	2.8E+03	9.4E+03	9.4E+04	9.4E+03
90	1.1E+04	1.8E+06	3.3E+03	1.1E+04	1.1E+05	1.1E+04
95	1.3E+04	2.2E+06	3.9E+03	1.3E+04	1.3E+05	1.3E+04
100	1.5E+04	2.6E+06	4.6E+03	1.5E+04	1.5E+05	1.5E+04
105	1.8E+04	3.0E+06	5.4E+03	1.8E+04	1.8E+05	1.8E+04
110	2.2E+04	3.6E+06	6.6E+03	2.2E+04	2.2E+05	2.2E+04
115	2.6E+04	4.4E+06	7.8E+03	2.6E+04	2.6E+05	2.6E+04
120	3.1E+04	5.0E+06	9.2E+03	3.1E+04	3.1E+05	3.1E+04

(3) Table 1 C. Tier I and Tier II Feed Rates and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Complex Terrain - Values for Urban Rural Areas:

Terrain-adjusted Eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	1.4E+01	2.4E+03	4.3E+00	1.4E+01	1.4E+02	1.4E+01
6	2.1E+01	3.5E+03	6.2E+00	2.1E+01	2.1E+02	2.1E+01
8	3.0E+01	5.0E+03	9.2E+00	3.0E+01	3.0E+02	3.0E+01
10	4.3E+01	7.6E+03	1.3E+01	4.3E+01	4.3E+02	4.3E+01
12	5.4E+01	9.0E+03	1.7E+01	5.4E+01	5.4E+02	5.4E+01
14	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
16	7.8E+01	1.3E+04	2.4E+01	7.8E+01	7.8E+02	7.8E+01
18	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
20	9.6E+01	1.6E+04	2.9E+01	9.6E+01	9.6E+02	9.6E+01
22	1.0E+02	1.8E+04	3.2E+01	1.0E+02	1.0E+03	1.0E+02
24	1.2E+02	1.9E+04	3.5E+01	1.2E+02	1.2E+03	1.2E+02
26	1.3E+02	2.2E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02

VOLUME 33, NUMBER 12 - JUNE 1, 2007

28	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
30	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
35	2.0E+02	3.3E+04	6.8E+01	2.0E+02	2.0E+03	2.0E+02
40	2.4E+02	4.0E+04	7.2E+01	2.4E+02	2.4E+03	2.4E+02
45	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02
50	3.6E+02	6.0E+04	1.1E+02	3.6E+02	3.6E+03	3.6E+02
55	4.6E+02	7.6E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
60	5.8E+02	9.4E+04	1.7E+02	5.8E+02	5.8E+03	5.8E+02
65	6.8E+02	1.1E+05	2.1E+02	6.8E+02	6.8E+03	6.8E+02
70	7.8E+02	1.3E+05	2.4E+02	7.8E+02	7.8E+03	7.8E+02
75	8.6E+02	1.4E+05	2.6E+02	8.6E+02	8.6E+03	8.6E+02
80	9.6E+02	1.6E+05	2.9E+02	9.6E+02	9.6E+03	9.6E+02
85	1.1E+03	1.8E+05	3.3E+02	1.1E+03	1.1E+04	1.1E+03
90	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
95	1.4E+03	2.3E+05	4.0E+02	1.4E+03	1.4E+04	1.4E+03
100	1.6E+03	2.6E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
105	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
110	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
115	2.1E+03	3.6E+05	6.4E+02	2.1E+03	2.1E+04	2.1E+03
120	2.4E+03	4.0E+05	7.2E+02	2.4E+03	2.4E+04	2.4E+03

(4) Table 1-D. Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain - Values for use in Urban Areas

Terrain adjusted off-stack ht (m)	Values for use in urban areas				Values for use in rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	4.6E-02	1.1E-01	1.7E-02	8.2E-02	2.4E-02	5.8E-02	8.6E-03	4.3E-02
6	6.4E-02	1.3E-01	1.9E-02	9.4E-02	2.8E-02	6.6E-02	1.0E-02	6.0E-02
8	6.0E-02	1.4E-01	2.2E-02	1.1E-01	3.2E-02	7.6E-02	1.1E-02	6.6E-02
10	6.8E-02	1.6E-01	2.4E-02	1.2E-01	3.6E-02	8.6E-02	1.3E-02	6.4E-02
12	7.6E-02	1.8E-01	2.7E-02	1.4E-01	4.3E-02	1.1E-01	1.6E-02	7.8E-02
14	8.6E-02	2.1E-01	3.1E-02	1.5E-01	5.4E-02	1.3E-01	2.0E-02	9.6E-02
16	9.6E-02	2.3E-01	3.5E-02	1.7E-01	6.8E-02	1.6E-01	2.4E-02	1.2E-01
18	1.1E-01	2.6E-01	4.0E-02	2.0E-01	8.2E-02	2.0E-01	3.0E-02	1.5E-01
20	1.2E-01	3.0E-01	4.4E-02	2.2E-01	1.0E-01	2.5E-01	3.7E-02	1.9E-01
22	1.4E-01	3.4E-01	5.0E-02	2.5E-01	1.3E-01	3.2E-01	4.8E-02	2.4E-01
24	1.6E-01	3.9E-01	5.8E-02	2.8E-01	1.7E-01	4.0E-01	6.0E-02	3.0E-01
26	1.8E-01	4.3E-01	6.4E-02	3.2E-01	2.1E-01	5.0E-01	7.6E-02	3.9E-01
28	2.0E-01	4.8E-01	7.2E-02	3.6E-01	2.7E-01	6.4E-01	9.8E-02	5.0E-01
30	2.3E-01	5.4E-01	8.2E-02	4.0E-01	3.5E-01	8.2E-01	1.2E-01	6.2E-01
35	3.0E-01	6.8E-01	1.0E-01	5.4E-01	6.4E-01	1.3E+00	1.9E-01	9.6E-01
40	3.6E-01	8.0E-01	1.3E-01	6.8E-01	8.2E-01	2.0E+00	3.0E-01	1.5E+00
45	4.6E-01	1.1E+00	1.7E-01	8.6E-01	1.1E+00	2.8E+00	4.2E-01	2.1E+00
50	6.0E-01	1.4E+00	2.2E-01	1.1E+00	1.5E+00	3.7E+00	5.4E-01	2.8E+00
55	7.6E-01	1.8E+00	2.7E-01	1.4E+00	2.0E+00	5.0E+00	7.2E-01	3.6E+00
60	9.4E-01	2.2E+00	3.4E-01	1.7E+00	2.7E+00	6.4E+00	9.6E-01	4.8E+00
65	1.1E+00	2.8E+00	4.2E-01	2.1E+00	3.6E+00	8.6E+00	1.3E+00	6.4E+00
70	1.3E+00	3.1E+00	4.6E-01	2.4E+00	4.3E+00	1.0E+01	1.5E+00	7.6E+00
75	1.5E+00	3.6E+00	5.4E-01	2.7E+00	5.0E+00	1.2E+01	1.8E+00	9.0E+00
80	1.7E+00	4.0E+00	6.0E-01	3.0E+00	6.0E+00	1.4E+01	2.2E+00	1.1E+01
85	1.9E+00	4.6E+00	6.8E-01	3.4E+00	7.2E+00	1.7E+01	2.6E+00	1.3E+01
90	2.2E+00	5.0E+00	7.8E-01	3.9E+00	8.6E+00	2.0E+01	3.0E+00	1.5E+01
95	2.5E+00	5.8E+00	9.0E-01	4.4E+00	1.0E+01	2.4E+01	3.6E+00	1.9E+01
100	2.8E+00	6.8E+00	1.0E+00	5.0E+00	1.2E+01	2.9E+01	4.3E+00	2.2E+01
105	3.2E+00	7.6E+00	1.1E+00	5.6E+00	1.4E+01	3.4E+01	5.0E+00	2.6E+01
110	3.6E+00	8.6E+00	1.3E+00	6.4E+00	1.7E+01	4.0E+01	6.0E+00	3.0E+01
115	4.0E+00	9.6E+00	1.5E+00	7.2E+00	2.0E+01	4.8E+01	7.2E+00	3.6E+01
120	4.6E+00	1.1E+01	1.7E+00	8.2E+00	2.4E+01	5.8E+01	8.6E+00	4.3E+01

(5) Table 1-E. Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain - Values for use in Urban and Rural Areas

Terrain adjusted off-stack ht (m)	Values for use in urban and rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	1.1E-02	2.6E-02	4.0E-03	2.0E-02
6	1.6E-02	3.0E-02	5.8E-03	2.9E-02
8	2.4E-02	5.8E-02	8.6E-03	4.3E-02
10	3.5E-02	8.2E-02	1.3E-02	6.2E-02
12	4.3E-02	1.0E-01	1.6E-02	7.6E-02
14	5.0E-02	1.3E-01	1.9E-02	9.4E-02
16	6.0E-02	1.4E-01	2.2E-02	1.1E-01
18	6.8E-02	1.6E-01	2.4E-02	1.2E-01

VOLUME 33, NUMBER 12 - JUNE 1, 2007

20	7.6E-02	1.8E-01	2.7E-02	1.3E-01
22	8.2E-02	1.0E-01	3.0E-02	1.5E-01
24	9.0E-02	2.1E-01	3.3E-02	1.6E-01
26	1.0E-01	2.4E-01	3.6E-02	1.8E-01
28	1.1E-01	2.7E-01	4.0E-02	2.0E-01
30	1.2E-01	3.0E-01	4.4E-02	2.2E-01
35	1.5E-01	3.7E-01	5.4E-02	2.7E-01
40	1.9E-01	4.6E-01	6.8E-02	3.4E-01
45	2.4E-01	5.4E-01	8.4E-02	4.2E-01
50	2.9E-01	6.8E-01	1.0E-01	5.0E-01
55	3.5E-01	8.4E-01	1.3E-01	6.4E-01
60	4.3E-01	1.0E+00	1.5E-01	7.8E-01
65	6.4E-01	1.3E+00	1.9E-01	9.6E-01
70	6.0E-01	1.4E+00	2.2E-01	1.1E+00
75	6.8E-01	1.6E+00	2.4E-01	1.2E+00
80	7.6E-01	1.8E+00	2.7E-01	1.3E+00
85	8.2E-01	2.0E+00	3.0E-01	1.5E+00
90	8.4E-01	2.3E+00	3.4E-01	1.7E+00
95	1.0E+00	2.5E+00	4.0E-01	1.9E+00
100	1.2E+00	2.8E+00	4.3E-01	2.1E+00
105	1.3E+00	3.2E+00	4.8E-01	2.4E+00
110	1.5E+00	3.5E+00	5.4E-01	2.7E+00
115	1.7E+00	4.0E+00	6.0E-01	3.0E+00
120	1.9E+00	4.4E+00	6.4E-01	3.3E+00

Section 2 - Tier I Feed Rate Screening Limits for Total Chlorine.

Terrain-adjusted effective stack height (m)	Noncomplex Terrain		Complex Terrain (g/hr)
	Urban (g/hr)	Rural (g/hr)	
4	8.2E+01	4.2E+01	1.0E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01
16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

Section 3 - Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)
4	8.2E+01	1.4E+03	4.2E+01	7.3E+02	1.0E+01	3.3E+02
6	9.1E+01	1.6E+03	4.8E+01	8.3E+02	2.8E+01	4.9E+02
8	1.0E+02	1.8E+03	5.3E+01	9.2E+02	4.1E+01	7.1E+02
10	1.2E+02	2.0E+03	6.2E+01	1.1E+03	5.8E+01	1.0E+03

VOLUME 33, NUMBER 12 - JUNE 1, 2007

12	1.3E+02	2.3E+03	7.7E+01	1.3E+03	7.2E+01	1.3E+03
14	1.5E+02	2.6E+03	9.1E+01	1.6E+03	9.1E+01	1.6E+03
16	1.7E+02	2.9E+03	1.2E+02	2.0E+03	1.1E+02	1.8E+03
18	1.9E+02	3.3E+03	1.4E+02	2.5E+03	1.2E+02	2.0E+03
20	2.1E+02	3.7E+03	1.6E+02	3.1E+03	1.3E+02	2.3E+03
22	2.4E+02	4.2E+03	2.3E+02	3.9E+03	1.4E+02	2.4E+03
24	2.7E+02	4.8E+03	2.9E+02	5.0E+03	1.6E+02	2.8E+03
26	3.1E+02	5.4E+03	3.7E+02	6.5E+03	1.7E+02	3.0E+03
28	3.5E+02	6.0E+03	4.7E+02	8.1E+03	1.9E+02	3.4E+03
30	3.9E+02	6.9E+03	5.8E+02	1.0E+04	2.1E+02	3.7E+03
35	5.3E+02	9.2E+03	9.6E+02	1.7E+04	2.6E+02	4.6E+03
40	6.2E+02	1.1E+04	1.4E+03	2.5E+04	3.3E+02	5.7E+03
45	8.2E+02	1.4E+04	2.0E+03	3.5E+04	4.0E+02	7.0E+03
50	1.1E+03	1.9E+04	2.6E+03	4.6E+04	4.8E+02	8.4E+03
55	1.3E+03	2.3E+04	3.5E+03	6.1E+04	6.2E+02	1.1E+04
60	1.6E+03	2.9E+04	4.6E+03	8.1E+04	7.7E+02	1.3E+04
65	2.0E+03	3.4E+04	6.2E+03	1.1E+05	9.1E+02	1.6E+04
70	2.3E+03	3.9E+04	7.2E+03	1.3E+05	1.1E+03	1.8E+04
75	2.5E+03	4.5E+04	8.6E+03	1.5E+05	1.2E+03	2.0E+04
80	2.9E+03	5.0E+04	1.0E+04	1.8E+05	1.3E+03	2.3E+04
85	3.3E+03	5.8E+04	1.2E+04	2.2E+05	1.4E+03	2.5E+04
90	3.7E+03	6.6E+04	1.4E+04	2.5E+05	1.6E+03	2.9E+04
95	4.2E+03	7.4E+04	1.7E+04	3.0E+05	1.8E+03	3.2E+04
100	4.8E+03	8.4E+04	2.1E+04	3.6E+05	2.0E+03	3.5E+04
105	5.3E+03	9.2E+04	2.4E+04	4.3E+05	2.3E+03	3.9E+04
110	6.2E+03	1.1E+05	2.9E+04	5.1E+05	2.5E+03	4.5E+04
115	7.2E+03	1.3E+05	3.5E+04	6.1E+05	2.8E+03	5.0E+04
120	8.2E+03	1.4E+05	4.1E+04	7.2E+05	3.2E+03	5.6E+04

Section 4. Reference Air Concentrations (RAC).

Note: The RAC for other Appendix VIII of 40 C.F.R. 261 constituents not listed in this section or in Section 5 of this administrative regulation is 0.1 ug/m³.

Constituent	CAS No.	RAC (ug/m ³)
Acetaldehyde	75-07-0	10
Acetonitrile	75-05-8	10
Acetophenone	98-86-2	100
Acrolein	107-02-8	20
Aldicarb	116-06-3	1
Aluminum Phosphide	20859-73-8	0.3
Allyl Alcohol	107-18-6	5
Antimony	7440-36-0	0.3
Barium	7440-30-3	50
Barium Cyanide	542-62-1	50
Bromomethane	74-83-0	0.8
Calcium Cyanide	592-01-8	30
Carbon Disulfide	75-15-0	200
Chloral	75-87-6	2
Chloro (free)		0.4
2-Chloro-1,3-butadiene	126-90-8	3
Chromium III	16065-83-1	1000
Copper Cyanide	544-92-3	5
Cresols	1310-77-3	50
Cumene	98-82-8	1
Cyanide (free)	57-12-15	20
Cyanogen	460-19-5	30
Cyanogen Bromide	506-68-3	80
Di-n-butyl Phthalate	84-74-2	100
o-Dichlorobenzene	95-50-1	10
p-Dichlorobenzene	106-46-7	10
Dichlorodifluoromethane	75-71-8	200
2,4-Dichlorophenol	120-83-2	3
Diethyl Phthalate	84-66-2	800
Dimethoate	60-51-5	0.8
2,4-Dinitrophenol	51-28-5	2
Dinoseb	88-85-7	0.9
Diphenylamine	122-30-4	20
Endosulfan	115-20-1	0.05
Ethrin	72-20-8	0.3
Fluorine	7782-41-4	50

Formic Acid	64-18-6	2000
Glyoxyaldehyde	765-34-4	0.3
Hexachlorocyclopentadiene	77-47-4	5
Hexachlorophene	70-30-4	0.3
Hydrocyanic Acid	74-90-8	20
Hydrogen Chloride	7647-01-1	7
Hydrogen Sulfide	7783-06-4	3
Isobutyl Alcohol	78-83-1	300
Lead	7430-02-1	0.00
Maleic Anhydride	108-31-6	100
Mercury	7430-07-6	0.3
Methacrylonitrile	126-98-7	0.1
Methomyl	16752-77-5	20
Methoxychlor	72-43-5	50
Methyl Chloroacetate	70-22-1	1000
Methyl Ethyl Ketone	78-03-3	80
Methyl Parathion	298-00-0	0.3
Nickel Cyanide	567-10-7	20
Nitro Oxide	10102-43-0	100
Nitrobenzene	98-95-3	0.8
Pentachlorobenzene	608-93-5	0.8
Pentachlorophenol	87-86-5	30
Phenol	108-95-2	30
M-Phenylenediamine	108-45-2	5
Phenylmercuric Acetate	62-38-4	0.075
Phosphine	7803-51-2	0.3
Phthalic Anhydride	85-44-0	2000
Potassium Cyanide	151-50-8	50
Potassium Silver Cyanide	506-61-6	200
Pyridine	110-86-1	1
Selenous Acid	7783-60-8	3
Selenourea	630-10-4	5
Silver	7440-22-4	3
Silver Cyanide	506-64-0	100
Sodium Cyanide	143-33-0	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001
Tetrahydrofuran	109-99-0	10
Thallic Oxide	1314-32-5	0.3

VOLUME 33, NUMBER 12 - JUNE 1, 2007

Thallium	7440-29-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-0	0.3
Thallium (I) Chloride	7701-12-0	0.3
Thallium (I) Nitrate	10102-46-1	0.5
Thallium Selenite	12030-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075
Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-60-4	300
2,4,6-Trichlorophenol	85-85-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	567-21-1	50
Zinc Phosphide	1314-84-7	0.3

NOTE: The RAC for other 401 KAR 31-170 constituents not listed in this section or in Section 5 of this administrative regulation is 0.1 $\mu\text{g}/\text{m}^3$.

Section 5. Risk Specific Doses (10^6) (RSD)-

Constituent	CAS No.	Unit risk ($\text{m}^3/\mu\text{g}$)	ReD ($\mu\text{g}/\text{m}^3$)
Acrylamide	79-06-1	1.3E-03	7.7E-03
Acrylonitrile	107-13-1	6.8E-05	1.5E-01
Aldrin	300-00-2	4.0E-03	2.0E-03
Aniline	62-53-3	7.4E-06	1.4E+00
Arsenic	7440-38-2	4.3E-03	2.3E-03
Benz(a)anthracene	56-55-3	8.0E-04	1.1E-02
Benzene	71-43-2	8.3E-06	1.2E+00
Benzidine	92-87-5	6.7E-02	1.5E-04
Benzo(a)pyrene	50-32-8	3.3E-03	3.0E-03
Beryllium	7440-41-7	2.4E-03	4.2E-03
Bis(2-chloroethyl)ether	111-44-4	3.3E-04	3.0E-02
Bis(chloromethyl)ether	542-88-1	6.2E-02	1.6E-04
Bis(2-ethylhexyl)-phthalate	117-81-7	2.4E-07	4.2E+01
1,3-Butadiene	106-99-0	2.8E-04	3.6E-02
Cadmium	7440-43-0	1.8E-03	5.6E-03
Carbon Tetrachloride	56-23-5	1.5E-05	6.7E-01
Chlordane	57-74-0	3.7E-04	2.7E-02
Chloroform	67-66-3	2.3E-05	4.3E-01
Chloromethane	74-87-3	3.6E-06	2.8E+00
Chromium VI	7440-47-3	1.2E-02	8.3E-04
DDT	50-29-3	8.7E-05	1.0E-01
Di-benz(a,h)anthracene	53-70-3	1.4E-02	7.1E-04
1,2-Dibromo-3-chloropropane	96-12-8	6.3E-03	1.6E-03
1,2-Dibromoethane	106-93-4	2.2E-04	4.6E-02
1,1-Dichloroethane	75-34-3	2.6E-05	3.8E-01
1,2-Dichloroethane	107-06-2	2.6E-06	3.8E-01
1,1-Dichloroethylene	75-35-4	5.0E-05	2.0E-01
1,3-Dichloropropene	542-75-6	3.5E-01	2.9E-05
Dieldrin	60-57-1	4.6E-03	2.2E-03
Diethylstilbestrol	56-53-1	1.4E-01	7.1E-05
Dimethylnitrocamine	62-75-0	1.4E-02	7.1E-04

2,4-Dinitrotoluene	121-14-2	8.8E-05	1.1E-01
1,2-Diphenylhydrazine	122-66-7	2.2E-04	4.5E-02
1,4-Dioxane	123-01-1	1.4E-06	7.1E+00
Epichlorohydrin	106-89-8	1.2E-06	8.3E+00
Ethylene Oxide	75-21-8	1.0E-04	1.0E-01
Ethylene Dibromide	106-93-4	2.2E-04	4.5E-02
Formaldehyde	50-00-0	1.3E-05	7.7E-01
Heptachlor	76-44-8	1.3E-03	7.7E-03
Heptachlor-Epoxide	1024-57-3	2.6E-03	3.8E-03
Hexachlorobenzene	118-74-1	4.0E-04	2.0E-02
Hexachlorobutadiene	87-68-3	2.0E-05	5.0E-01
Alpha-hexachlorocyclohexane	310-84-6	1.8E-03	6.6E-03
Beta-hexachlorocyclohexane	310-85-7	5.3E-04	1.9E-02
Gamma-hexachlorocyclohexane	58-89-9	3.8E-04	2.6E-02
Hexachlorocyclohexane, Technical		5.1E-04	2.0E-02
Hexachlorodibenzo-p-dioxin(1,2 Mixture)		1.3E+0	7.7E-06
Hexachloroethane	67-72-1	4.0E-06	2.5E+00
Hydrazine	302-01-2	2.0E-03	3.4E-03
Hydrazine Sulfate	302-01-2	2.0E-03	3.4E-03
3-Methylcholanthrene	56-49-5	2.7E-03	3.7E-03
Methyl Hydrazine	60-34-4	3.1E-04	3.2E-02
Methylene Chloride	75-09-2	4.1E-06	2.4E+00
4,4'-Methylene-bis-2-chloroaniline	101-14-4	4.7E-05	2.1E-01
Nickel	7440-02-0	2.4E-04	4.2E-02
Nickel Refinery Dust	7440-02-0	2.4E-04	4.2E-02
Nickel Subsulfide	12035-72-2	4.8E-04	2.1E-02
2-Nitropropane	70-46-0	2.7E-02	3.7E-04
N-Nitroso-n-butylamine	924-16-3	1.6E-03	6.3E-03
N-Nitroso-n-methylurea	684-93-5	8.6E-02	1.2E-04
N-Nitrosodiethylamine	55-18-5	4.3E-02	2.3E-04
N-Nitrosopyrrolidine	930-55-2	6.1E-04	1.6E-02
Pentachloronitrobenzene	82-68-8	7.3E-05	1.4E-01
PCBs	1336-36-3	1.2E-03	8.3E-03
Pronamide	23950-58-5	4.6E-06	2.2E+00
Reserpine	50-55-5	3.0E-03	3.3E-03
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	4.5E+01	2.2E-07
1,1,2,2-Tetrachloroethane	70-34-5	5.8E-05	1.7E-01
Tetrachloroethylene	127-18-4	4.8E-07	2.1E+01
Thiourea	62-56-6	5.5E-04	1.8E-02
1,1,2-Trichloroethane	70-00-5	1.6E-05	6.3E-01
Trichloroethylene	70-01-6	1.3E-06	7.7E+00
2,4,6-Trichlorophenol	88-06-2	5.7E-06	1.8E+00
Toxaphene	8001-35-2	3.2E-04	3.1E-02
Vinyl Chloride	75-01-4	7.1E-06	1.4E+00

Section 6. Stack Plume Rise (SPR)-

Flow rate (m^3/s)	Exhaust Temperatures (K°)										
	<325	325-349	350-399	400-449	450-499	500-599	600-699	700-799	800-999	1000-1499	>1499
<0.5	0	0	0	0	0	0	0	0	0	0	0
0.5-0.9	0	0	0	0	0	0	0	0	+	+	+

VOLUME 33, NUMBER 12 -- JUNE 1, 2007

1-0-1-0	0	0	0	0	1	1	2	3	3	3	4
2-0-2-0	0	0	1	3	4	4	6	6	7	8	9
3-0-3-0	0	1	2	5	6	7	9	10	11	12	13
4-0-4-0	1	2	4	6	8	10	12	13	14	15	17
5-0-5-0	2	3	5	8	10	12	14	16	17	19	21
6-0-6-0	3	5	8	12	15	17	20	22	22	23	24
7-0-7-0	4	6	10	15	19	21	23	24	25	26	27
8-0-8-0	4	7	12	18	22	23	25	26	27	28	29
9-0-9-0	5	8	13	20	23	24	26	27	28	29	31
10-0-10-0	6	10	17	23	25	27	29	30	31	32	34
11-0-11-0	7	12	20	25	27	29	31	32	33	35	36
12-0-12-0	8	14	22	26	29	31	33	35	36	37	39
13-0-13-0	9	16	23	28	30	32	35	36	37	39	41
14-0-14-0	10	17	24	29	32	34	36	38	39	41	42
15-0-15-0	12	21	26	31	34	36	39	41	42	44	46
16-0-16-0	14	22	27	33	36	39	42	43	45	47	49
17-0-17-0	16	23	29	35	38	41	44	46	47	49	51
18-0-18-0	17	25	30	36	40	42	46	48	49	51	54
19-0-19-0	19	26	31	38	42	44	48	50	51	53	56
20-0-20-0	21	26	32	39	43	46	49	52	53	55	58
21-0-21-0	22	28	35	42	46	49	52	55	56	59	61
22-0-22-0	23	30	36	44	48	51	55	58	59	62	65
23-0-23-0	25	31	38	46	50	54	58	60	62	65	67
24-0-24-0	26	32	40	48	52	56	60	63	65	67	70
>24-0	26	33	41	49	54	58	62	65	67	69	73

Section 7. Health Based Limits for Exclusion of Waste-derived Residues:

*NOTE: The RAC for other Appendix VIII of 40 C.F.R. 261 constituents not listed in this section or in Section 5 of this administrative regulation is 0.1 vg/m³.

(1) Metals - TCLP Extract Concentration Limits

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1xE+00
Arsenic	7440-38-2	6xE+00
Barium	7440-39-3	1xE+02
Beryllium	7440-41-7	7xE-03
Cadmium	7440-43-9	1xE+00
Chromium	7440-47-3	6xE+00
Lead	7439-92-1	6xE+00
Mercury	7439-97-6	2xE-01
Nickel	7440-02-0	7xE+01
Selenium	7782-49-2	1xE+00
Silver	7440-22-4	6xE+00
Thallium	7440-28-0	7XE+00

(2) Nonmetals - Residue Concentration Limits

Constituent	CAS No.	Concentration Limits for Residues (mg/kg)
Acetonitrile	75-05-8	2xE-01
Acetophenone	98-86-2	4xE+00
Acrolein	107-02-8	6xE-01
Acrylamide	79-06-1	2xE-04
Acrylonitrile	107-13-1	7xE-04
Aldrin	309-00-2	2xE-06
Allyl alcohol	107-18-6	2xE-01
Aluminum phosphide	20859-73-8	1xE-02
Aniline	62-53-3	6xE-02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE-04
Benzene	71-43-2	6xE-03
Benzidine	92-87-5	1xE-06
Bis(2-chloroethyl) ether	111-44-4	3xE-04
Bis(chloromethyl) ether	542-88-1	2xE-06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE+01
Bromoform	75-25-2	7xE-01
Calcium cyanide	592-01-8	1xE-06

Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride	56-23-5	6xE-03
Chlordane	57-74-9	3xE-04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE-02
Copper cyanide	544-92-3	2xE-01
Cresols (Cresylic acid)	1310-77-3	2xE+00
Cyanogen	460-10-5	1xE+00
DDT	50-20-3	1xE-03
Dibenz(a, h)-anthracene	53-70-3	7xE-06
1,2-Dibromo-3-chloropropane	96-12-8	2xE-05
p-Dichlorobenzene	106-46-7	7.5xE-02
Dichlorodifluoromethane	75-71-8	7xE+00
1,1-Dichloroethylene	75-35-4	6xE-03
2,4-Dichlorophenol	120-83-2	1xE-01
1,3-Dichloropropene	542-75-6	1xE-03
Dieldrin	60-57-1	2xE-05
Diethyl phthalate	84-66-2	3xE+01
Diethylstilbestrol	56-53-1	7xE-07
Dimethoate	60-51-5	3xE-02
2,4-Dinitrotoluene	121-14-2	5xE-04
Diphenylamine	122-30-4	9xE-01
1,2-Diphenylhydrazine	122-66-7	5xE-04
Endosulfan	115-20-7	2xE-03
Endrin	72-20-8	2xE-04
Epichlorohydrin	106-89-8	4xE-02
Ethylene dibromide	106-93-4	4xE-07
Ethylene oxide	75-21-8	3xE-04
Fluorene	7782-41-4	4xE+00
Formic acid	64-18-6	7xE+01
Heptachlor	76-44-8	8xE-05
Heptachlor epoxide	1024-57-3	4xE-05
Hexachlorobenzene	118-74-1	2xE-04
Hexachlorobutadiene	87-68-3	5xE-03
Hexachlorocyclopentadiene	77-47-4	2xE-01
Hexachlorodibenzo-p-dioxins	19408-74-3	6xE-08
Hexachloroethane	67-72-1	3xE-02
Hydrazine	302-01-1	1xE-04
Hydrogen cyanide	74-90-8	7xE-05
Hydrogen sulfide	7783-06-4	1xE-06
Isobutyl alcohol	78-83-1	1xE+01
Mothomyl	16752-77-5	1xE+00
Methoxychlor	72-43-5	1xE-01
3-Methylcholanthrene	56-40-5	4xE-05

4,4'-Methylenedibis chloroaniline (2)	101-14-4	2xE-03
Methylene chloride	75-09-2	6xE-02
Methyl ethyl ketone (MEK)	78-93-3	2xE+00
Methyl hydrazine	60-34-4	3xE-04
Methyl parathion	298-00-0	2xE-02
Naphthalene	91-20-3	1xE+01
Nickel cyanide	557-19-7	7xE-01
Nitric oxide	10102-43-9	4xE+00
Nitrobenzene	98-95-3	2xE-02
N-Nitrosodi-n-butylamine	924-16-3	6xE-06
N-Nitrosodiethylamine	55-18-5	2xE-06
N-Nitroso-N-methylurea	684-93-5	1xE-07
N-Nitrosopyrrolidine	930-55-2	2xE-04
Pentachlorobenzene	608-93-5	3xE-02
Pentachloronitrobenzene (PCNB)	82-68-8	1xE-01
Pentachlorophenol	87-86-5	1xE+00
Phenol	108-95-2	1xE+00
Phenylmercury acetate	62-38-4	3xE-03
Phenolphthalein	7803-51-2	1xE-02
Polychlorinated biphenyls, N.O.S.	1336-36-3	5xE-05
Potassium cyanide	151-50-8	2xE+00
Potassium silver cyanide	606-61-6	7xE+00
Pronamide	23050-58-5	3xE+00
Pyridine	110-86-1	4xE-02
Reserpine	50-55-5	3xE-06
Selenourea	630-10-4	2xE-01
Silver cyanide	506-64-9	4xE+00
Sodium cyanide	143-33-9	1xE+00
Strychnine	57-24-9	1xE-02
1,2,4,5-Tetrachlorobenzene	95-94-3	1xE-02
1,1,2,2-tetrachloroethane	79-34-5	2xE-03
Tetrachloroethylene	127-18-4	7xE-01
2,3,4,6-Tetrachlorophenol	68-90-2	1xE-02
Tetraethyl lead	78-00-2	4xE-06
Thiourea	62-56-6	2xE-04
Toluene	108-88-3	1xE+01
Toxaphene	8001-35-2	5xE-03
1,1,2-Trichloroethane	79-00-5	6xE-03
Trichloroethylene	79-01-6	6xE-03
Trichloromonofluoromethane	75-69-4	1xE+01
2,4,5-Trichlorophenol	95-95-4	4xE+00
2,4,6-Trichlorophenol	88-06-2	4xE+00
Vanadium pentoxide	1314-62-1	7xE-01
Vinyl chloride	75-01-4	2xE-03

*NOTE 1: The health-based concentration limits for Section 1 of 401 KAR 31:170 constituents for which a health-based concentration is not provided in this section is 2×10^{-6} mg/kg.

*NOTE 2: The levels specified in this section and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this section shall be used except, for those constituents specified in Section 13(2)(a) of 401 KAR 36-020, the owner or operator shall comply with alternative levels defined as the land disposal restriction limits specified in Section 1 of 401 KAR 37-040 for F039 nonwastewaters. See Section 13(2)(b)1 of 401 KAR 36-020.

Section 8. Potential PICs for Determination of Exclusion of Waste Derived Residues.

PICs Found in Stack Effluents	
Volatiles	Semivolatiles
Benzene	Bis(2-ethylhexyl)phthalate
Toluene	Naphthalene
Carbon tetrachloride	Phenol
Chloroform	Diethyl phthalate
Methylene chloride	Butyl benzyl phthalate
Trichloroethylene	2,4-Dimethylphenol
Tetrachloroethylene	o-Dichlorobenzene
1,1,1-Trichloroethane	m-Dichlorobenzene

Chlorobenzene	p-Dichlorobenzene
cis-1,4-Dichloro-2-butene	Hexachlorobenzene
Bromochloromethane	2,4,6-Trichlorophenol
Bromodichloromethane	Fluoranthene
Bromoform	o-Nitrophenol
Bromomethane	1,2,4-Trichlorobenzene
Methylene bromide	o-Chlorophenol
Methyl ethyl ketone	Pentachlorophenol
	Pyrene
	Dimethyl phthalate
	Mononitrobenzene
	2,6-Toluene diisocyanate

Section 9. Lead-bearing Materials that May be Processed in Exempt Lead Smelters. (1) Exempt lead-bearing materials when generated or originally produced by lead-associated industries:

- Acid dump/fill solids
 - Sump mud
 - Materials from laboratory analyses
 - Acid filters
 - Baghouse bags
 - Clothing (for example, coveralls, aprons, shoes, hats, and gloves)
 - Sweepings
 - Air filter bags and cartridges
 - Respiratory cartridge filters
 - Shop abrasives
 - Stacking boards
 - Waste-chipping containers (for example, cartons, bags, drums, and cardboard)
 - Paper hand towels
 - Wiping rags and sponges
 - Contaminated pallets
 - Water treatment sludges, filter cakes, residues, and solids
 - Emission-control dusts, sludges, filter cakes, residues, and solids from lead-associated industries (for example, K069 and D008 wastes)
 - Spent grids, pots, and separators
 - Spent batteries
 - Lead oxide and lead oxide residues
 - Lead plates and groups
 - Spent battery cases, covers, and vents
 - Pasting belts
 - Water filter media
 - Cheesecloth from pasting rollers
 - Pasting additive bags
 - Asphalt paving materials
- (2) Exempt lead-bearing materials when generated or originally produced by any industry:
- Charging jumpers and clips
 - Platen abrasive
 - Fluff from lead wire and cable casings
 - Lead-based pigments and compounding pigment dust

Section 10. Nickel or Chromium-bearing Materials that May be Processed in Exempt Nickel-chromium Recovery Furnaces. (1) Exempt nickel or chromium-bearing materials when generated by manufacturers or users of nickel, chromium, or iron:

- Baghouse bags
 - Raney nickel catalyst
 - Floor sweeping
 - Air filters
 - Electroplating bath filters
 - Wastewater filter media
 - Wood pallets
 - Disposable clothing (coveralls, aprons, hats, and gloves)
 - Laboratory samples and spent chemicals
 - Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
 - Respirator cartridge filters
 - Paper hand towels
- (2) Exempt nickel or chromium-bearing materials when generated by any industry:

Electroplating wastewater treatment sludges (F006)
 Nickel and/or chromium containing solutions
 Nickel, chromium, and iron catalysts
 Nickel-cadmium and nickel-iron batteries
 Filter cake from wet scrubber system water treatment plants in the specialty steel industry
 Filter cake from nickel-chromium alloy pickling operations

Section 11. Other Appendices of 40 C.F.R. Part 266. (1) Appendix IX Methods Manual for Compliance with the BIF Regulations from 40 C.F.R. Part 266 (July 1, 1996) is hereby adopted without change.

(2) The document referenced specified in subsection (1) of this section is available for inspection and copying, subject to copyright law, at the Hazardous Waste Branch, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, (502) 564-6716, between 8 a.m. and 4:30 p.m., EST, Monday through Friday.

Section 12. Mercury Bearing Wastes that May be Processed in Exempt Mercury Recovery Units. These are exempt mercury-bearing materials with less than 500 ppm organic constituents listed in 401 KAR 31:170 when generated by manufacturers or users of mercury or mercury products:

Activated Carbon
 Decomposer Graphite
 Wood
 Paper
 Protective Clothing
 Sweepings
 Respiratory Cartidge Filters
 Cleanup Articles
 Plastic Bags and Other Contaminated Containers
 Laboratory and Process Control Samples
 K106 and Other Wastewater Treatment Plant Sludge and Filter Cake

Mercury Cell and Sump and Tank Sludge
 Mercury Cell Process Solids
 Recoverable Levels of Mercury Contained in Soil

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 36:030. Recyclable materials used in a manner constituting disposal.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266 Subpart C
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 266 Subpart C]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in recycling of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all hazardous waste recycling facilities. [This chapter establishes minimum standards for hazardous waste recycling facilities.] This administrative regulation [implements] [To implement] [provisions of KRS 224.46-520 and] establishes [to establish] minimum standards for recyclable materials [which are] used in a manner constituting disposal.

Section 1. Applicability (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 266.20, effective July 1, 2005.

(2) The citation to Section 3004(d) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

Section 2. Standards Applicable to Generators and Transporters of Materials Used in a Manner that Constitutes Disposal. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 266.21, effective July 1, 2005.

(2) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-510(3).

Section 3. Standards Applicable to Storers of Materials that are to be Used in a Manner that Constitutes Disposal who are Not the Ultimate Users (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 266.22, effective July 1, 2005.

(2) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR 34.020, Section 2, and 401 KAR 35.020, Section 2.

Section 4. Standards Applicable to Users of Materials [that are] Used in a Manner that Constitutes Disposal. (1) Except as provided in subsections (2) to (4) of this section, the subject matter shall be governed by 40 C.F.R. 266.23, effective July 1, 2005.

(2) Waste or used oil shall not be used as a dust suppressant in Kentucky.

(3) Any material contaminated with dioxins or hazardous wastes shall not be used for dust suppression in Kentucky. [The use of waste or used oil as a dust suppressant is prohibited in the Commonwealth of Kentucky.]

(3) The use of any material contaminated with dioxine or hazardous wastes, for dust suppression is prohibited within the Commonwealth of Kentucky.]

(4) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR 35.020, Section 2, and 401 KAR 35.020, Section 2.

[Section 1. Applicability (1) This administrative regulation applies to recyclable materials that are applied to or placed on the land without mixing with any other substance, or after mixing or combination with any other substance. These materials shall be referred to throughout this administrative regulation as "materials used in a manner that constitutes disposal".

(2) Products produced for public use that are used in a manner that constitutes disposal and that contain recyclable materials are not subject to the provisions of 401 KAR Chapters 31 to 39 if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means and if the products meet the applicable treatment standards in 401 KAR 37.040 (or applicable prohibition levels in Section 3 of 401 KAR 37.030, or KRS 224.46-520, where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for public use are not presently subject to regulation. Commercial fertilizers that are produced for public use that contain recyclable materials also are not presently subject to regulation provided that they meet these same treatment standards or prohibition levels specified in 401 KAR Chapter 37 for each recyclable material that they contain.

(3) Anticid or doling uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in subsection (2) of this section and remain subject to regulation.

Section 2. Standards Applicable to Generators and Transporters of Materials Used in a Manner that Constitutes Disposal. Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of 401 KAR Chapters 32 and 33 and the notification requirement under KRS 224.46-510(3).

~~Section 3. Standards Applicable to Storers of Materials that Are to be Used in a Manner that Constitutes Disposal who are Not the Ultimate Users. Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of 401 KAR 34.010 to 401 KAR 34.210, 401 KAR 35.010 to 401 KAR 35.210 and 401 KAR Chapter 38 and the notification requirements under Section 2 of 401 KAR 34.020 and Section 2 of 401 KAR 35.020.~~

~~Section 4. Standards Applicable to Users of Materials that are Used in a Manner that Constitutes Disposal. (1) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of 401 KAR 34.010 to 401 KAR 34.230, 401 KAR 35.010 to 401 KAR 35.230, 401 KAR Chapter 37 and 401 KAR Chapter 38 and the notification requirements under Section 2 of 401 KAR 34.020 and Section 2 of 401 KAR 35.020. (These requirements do not apply to products which contain these recyclable materials under the provisions of Section 1(2) of this administrative regulation.)~~

~~(2)(a) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste for dust suppression or road treatment is prohibited.~~

~~(b) In accordance with KRS 224.46-510(2), any person engaged in spreading waste or used oil or other material shall make a determination as to whether such waste is hazardous pursuant to criteria specified in 401 KAR Chapter 31. This determination shall be carried in the vehicle whenever waste or used oil or other material is being applied for dust suppression or road treatment.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 36:060. Recyclable materials used for precious metal recovery.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266.70

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 266.70]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in recycling of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all hazardous waste recycling facilities. [This chapter establishes minimum standards for hazardous waste recycling facilities.] This administrative regulation establishes minimum standards for recyclable materials which are reclaimed to recover economically significant amounts of precious metals.

Section 1. Applicability and Requirements. (1) Except as provided in subsection (2) of this section the subject matter shall be governed by 40 C.F.R. 266.70, effective July 1, 2005.

(2) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-510; 401 KAR 32.010, Section 3; 401 KAR 33.010, Section 2; and 401 KAR 34.020, Section 2.

[Section 1 Applicability. The requirements of this administrative regulation apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combina-

tion of these.

Section 2. Requirements. (1) Persons who generate, transport or store recyclable materials that are subject to this administrative regulation are subject to the following requirements:

(a) Notification requirements under KRS 224.46-510 and Section 3 of 401 KAR 32.010 (for generators); Section 2 of 401 KAR 33.010 (for transporters); and Section 2 of 401 KAR 34.020 (for persons who store).

(b) 401 KAR 32.020 (for generators), 401 KAR 33.020, Section 1 (for transporters); 401 KAR 35.050, Sections 2 and 3 (for persons who store);

(2) Persons who store recycled materials that are subject to the administrative regulation must keep the following records to document that they are not accumulating these materials speculatively (as defined in 401 KAR 31.010, Section 1(3)):

(a) Records showing the volume of these materials stored at the beginning of the calendar year;

(b) The amount of these materials generated or received during the calendar year; and

(c) The amount of materials remaining at the end of the calendar year.

(3) Recyclable materials that are subject to this administrative regulation that are accumulated speculatively (as defined in 401 KAR 31.010, Section 1(3)) are subject to all applicable provisions of 401 KAR Chapters 32, 33, 34, 35, 38, and 39.

(4) Persons who recycle materials that are subject to this administrative regulation are subject to the notification requirements under 401 KAR 35.020, Section 2 and 401 KAR 34.020, Section 2.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 36:070. Spent lead-acid batteries being reclaimed.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266.80 [266 Subpart G]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 266 Subpart G]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires that persons engaging in recycling of hazardous waste obtain a permit. KRS 224.46-520 requires the Environmental and Public Protection Cabinet to establish standards for these permits, to require adequate financial responsibility, and to establish minimum standards for closure for all hazardous waste recycling facilities. [This chapter establishes minimum standards for hazardous waste recycling facilities.] This administrative regulation establishes standards for persons who reclaim spent lead-acid batteries that are recyclable materials.

Section 1. Applicability and Requirements. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 266.80, effective July 1, 2005.

(2) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR 34.020, Section 2, and 401 KAR 35.020, Section 2.

[Section 1. Applicability. The requirements in this administrative regulation apply to persons who reclaim (including regeneration) spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport, or collect spent batteries, who regenerate spent batteries, or who store spent batteries but do not reclaim them (other than spent batteries that are to be

regenerated) are not subject to regulation under 401 KAR Chapters 32 through 38, except as provided in Section 2 of this administrative regulation, and also are not subject to the requirements of KRS 224.46-510 unless the spent battery is broken. Spent batteries broken by any method other than recycling are subject to 401 KAR Chapters 31 through 35.

~~Section 2. Facility Requirements. (1) Owners or operators of facilities that store spent batteries before reclaiming (other than spent batteries that are to be regenerated) them are subject to the following requirements:~~

~~(a) Notification requirements under 401 KAR 34.020, Section 2;~~

~~(b) All applicable provisions in 401 KAR 34.010, 401 KAR 34.020 (but not Section 4 of 401 KAR 34.020 (waste analysis)), 401 KAR 34.030, 401 KAR 34.040, 401 KAR 34.050 (but not Section 2 or 3 of 401 KAR 34.050 (dealing with the use of the manifest and manifest discrepancies)), and 401 KAR 34.060 through 401 KAR 34.210.~~

~~(c) All applicable provisions in 401 KAR 35.010, 401 KAR 35.020 (but not Section 4 of 401 KAR 35.020 (waste analysis)), 401 KAR 35.030, 401 KAR 35.040, 401 KAR 35.050 (but not Section 2 or 3 of 401 KAR 35.050 (dealing with use of the manifest and manifest discrepancies)), and 401 KAR 35.060 through 401 KAR 35.220.~~

~~(d) All applicable provisions in 401 KAR Chapter 38.~~

~~(2) Owners or operators of facilities that reclaim spent batteries, but do not store them before reclaiming them are subject to notification requirements under 401 KAR 34.020, Section 2, and 401 KAR 35.020, Section 2.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department for Environmental Protection

Division of Waste Management

(As Amended at ARRS, May 8, 2007)

401 KAR 36:080. Military munitions.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266 Subpart M

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 40 C.F.R. 266 Subpart M

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, and dispose of hazardous waste. This administrative regulation defines military munitions, identifies when military munitions become a waste, and exempts military munitions from certain requirements established in 401 KAR Chapters 30 through 38. [This administrative regulation identifies military munitions and when military munitions become a waste. This regulation also identifies information from 401 KAR Chapters 30 through 38 that does not apply to military munitions.]

Section 1. Definitions. The subject matter shall be governed by 40 C.F.R. 266.201, effective July 1, 2005.

Section 2. Applicability. [(+) The subject matter shall be governed by 40 C.F.R. 266.200, effective July 1, 2005.

Section 3. Definition of a Waste. (1) Except as established in subsections (2) to (5) of this section, the subject matter shall be governed by 40 C.F.R. 266.202, effective July 1, 2005, [with the modifications, exceptions, and additions set forth in this section].

(2) For purposes of 40 C.F.R. 266.202(a), military munitions

shall not include any material containing the substances specified in 401 KAR 31:040, Section 7.

(3) The citation to Section 1004(27) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.01-010(31)(a) [224.10-010(31)(a)].

(4) The citations to Sections 3004(u), 3004(v), and 3008(h) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-530.

(5) The citation to Section 7003 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.10-100(10).

Section 4. Standards Applicable to the Transportation of Waste Military Munitions. The subject matter shall be governed by 40 C.F.R. 266.203, effective July 1, 2005.

Section 5. Standards Applicable to Emergency Responses. [(+) The subject matter shall be governed by 40 C.F.R. 266.204, effective July 1, 2005.

Section 6. Standards Applicable to the Storage of Waste Military Munitions. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 266.205(a) through (c) and (e), effective July 1, 2005 [with the modifications, exceptions, and additions set forth in this section].

(2) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 401 KAR 31:040, Section 7, shall be [are] listed or identified as a hazardous waste and shall be subject to the applicable regulatory requirements of 401 KAR Chapter 30 through 38, including the storage prohibitions of 401 KAR 37:050.

(3) The citation to Subtitle C of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46.

Section 7. Standards Applicable to the Treatment and Disposal of Waste Military Munitions. The subject matter shall be governed by 40 C.F.R. 266.206, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department for Environmental Protection

Division of Waste Management

(As Amended at ARRS, May 8, 2007)

401 KAR 36:090. Conditional exemption for low-level mixed waste storage, treatment, transportation, and disposal.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 266 Subpart N

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 40 C.F.R. 266 Subpart N]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, and dispose of hazardous waste. This administrative regulation establishes the conditions [to be met in order] to exempt a low-level mixed waste from the regulatory definition of hazardous waste.

Section 1. Definitions. The subject matter shall be governed by 40 C.F.R. 266.210, effective July 1, 2005.

Section 2. Storage and Treatment Conditional Exemption and Eligibility. The subject matter shall be governed by 40 C.F.R. 266.220, 226.225, and [through 40 C.F.R.] 266.230, effective July

1, 2005.

Section 3. Treatment. The subject matter shall be governed by 40 C.F.R. 266.235, effective July 1, 2005.

Section 4. Loss of Conditional Exemption. The subject matter shall be governed by 40 C.F.R. 266.240 and 40 C.F.R. 266.245, effective July 1, 2005.

Section 5. Recordkeeping. The subject matter shall be governed by 40 C.F.R. 266.250, effective July 1, 2005.

Section 6. Reentry into the Hazardous Waste Program. The subject matter shall be governed by 40 C.F.R. 266.255, effective July 1, 2005.

Section 7. Storage Unit Closure. The subject matter shall be governed by 40 C.F.R. 266.260, effective July 1, 2005.

Section 8. Transportation and Disposal Conditional Exemption. The subject matter shall be governed by 40 C.F.R. 266.305, effective July 1, 2005.

Section 9. Eligibility. The subject matter shall be governed by 40 C.F.R. 266.310, effective July 1, 2005.

Section 10. Conditions. The subject matter shall be governed by 40 C.F.R. 266.315 through 40 C.F.R. 266.340, effective July 1, 2005.

Section 11. Notification. The subject matter shall be governed by 40 C.F.R. 266.345, effective July 1, 2005.

Section 12. Recordkeeping Related to Transportation and Disposal Conditional Exemption. The subject matter shall be governed by 40 C.F.R. 266.350, effective July 1, 2005.

Section 13. Loss of Transportation and Disposal Conditional Exemption. The subject matter shall be governed by 40 C.F.R. 266.355 and 40 C.F.R. 266.360, effective July 1, 2005.

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: January 3, 2007 at 2 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 37:005. Definitions for [related to] 401 KAR Chapter 37.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.46, 40 C.F.R. 260.10, 268.2

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(30) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations [The chapter implements provisions of KRS 224.46-505 and 224.46-520 relative to land disposal restrictions]. This administrative regulation defines essential terms that are used in 401 KAR Chapter 37 [this chapter]. [The majority of terms defined in this administrative regulation are equivalent to federal terms contained in 40 C.F.R. Parts 260 through 269.] Some federal terms have been modified [clarified to eliminate federal ambiguities and] to conform to Kentucky statutory mandates. Definitions contained in KRS Chapter 224 have been referenced to the appropriate statutory citation. Some terms do not have a federal counterpart and [These terms] have been added to

clarify requirements and provisions of KRS Chapter 224 and 401 KAR Chapter 37 [this chapter].

Section 1. Definitions Except as provided in this section, the definitions established in 40 C.F.R. 260.10, effective September 9, 2005, shall apply [The subject matter shall be governed by 40 C.F.R. 260.10 and 40 C.F.R. 268.2, effective September 9, 2005. The following modifications, exceptions, and additions set forth in this section shall amend 40 C.F.R. 260.10].

(1) "Administrator", "agency", "assistant administrator", "regional administrator", "director", or "regional director" means cabinet as defined in KRS 224.01-010(9).

(2) "Application" means the form approved by the cabinet for applying for a permit, including any additions, revisions or modifications and any narrative and drawings required by 401 KAR Chapters 30 to 48 and [The term] includes [.] Part A of the application (Part A); [.] Part B of the application (Part B); [.] notice of intent; [.] administration application; [.] special waste application; [.] or technical application.

(3) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

(4) "Cabinet" is defined by KRS 224.01-010(9).

(5) "Disposal" is defined by KRS 224.01-010(10).

(6) "Environmental Protection Agency" or "EPA" means the Kentucky Department for Environmental Protection except if [when] used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".

(7) "EPA Region or Authorized State" means [shall mean] the Commonwealth of Kentucky in 401 KAR 37:010, Section 8 [5], where 40 C.F.R. 268.9(d) is referenced.

(8) "Federal Register" means the "Kentucky Administrative Register" as described in KRS 13A.050.

(9) "Generator" is defined by KRS 224.01-010(13).

(10) "Hazardous constituent" is defined by KRS 224.01.010(42).

(11) "Hazardous debris" means debris that contains a hazardous waste listed in a federal regulation cited in 401 KAR 31:040 or that exhibits a characteristic of hazardous waste identified in 401 KAR 31:030.

(12) "Hazardous waste" is defined by KRS 224.01-010(31)(b).

(13) "Lab pack" means any large container equal to or smaller than fifty-five (55) gallons that holds many smaller containers of various content tightly secured with packing material.

(14) "Land disposal" is defined by KRS 224.01-010(43).

(15) "Manifest" is defined by KRS 224.01-010(37).

(16) "Person" is defined by KRS 224.01-010(17).

(17) "Publicly owned treatment works" or "POTW" is defined by KRS 224.01-010(19).

(18) "Solid waste" is [means "waste" as] defined in KRS 224.01-010(31)(a).

(19) "Storage" is defined by KRS 224.01-010(28).

(20) "Transfer facility" is defined by KRS 224.01-010(48).

(21) "Transportation" is defined by KRS 224.01-010(29).

(22) "Treatment" is defined by KRS 224.01-010(30).

(23) "United States" means the Commonwealth of Kentucky.

(24) "Used oil" is defined by KRS 224.50-545(2)(a).

(25) "Wastewaters" means wastes that contain less than one (1) percent by weight total organic carbon (TOC) and less than one (1) percent by weight total suspended solids (TSS), with the following exceptions:

(a) F001, F002, F003, F004, F005, wastewaters are solvent-water mixtures that contain less than one (1) percent by weight TOC or less than one (1) percent by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 2 [4] of 401 KAR 37:040 in Table Treatment Standards for Hazardous Waste;

(b) K011, K013, K014 wastewaters contain less than five (5) percent by weight TOC and less than one (1) percent by weight TSS, as generated; and

(c) K103 and K104 wastewaters contain less than four (4) percent by weight TOC and less than one (1) percent by weight TSS.

(26) "Water [Waters]" or "Waters of the Commonwealth" is defined by KRS 224.01-010(33).

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Section 2 Substitution of Federal References. (1) The following federal parts and subparts, which are cited by federal regulations referenced in 401 KAR Chapter 37, shall be substituted with the state administrative regulations listed below.

Federal Regulation	State Regulation
40 C.F.R. Part 260	401 KAR Chapter 30
40 C.F.R. 260 Subpart A	401 KAR 30 020
40 C.F.R. 260 Subpart B	401 KAR 30:005, 401 KAR 30 020, 401 KAR 31:005, 401 KAR 32 005, 401 KAR 33:005, 401 KAR 34 005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38 005, 401 KAR 43:005, and 401 KAR 44:005
40 C.F.R. 260 Subpart C	401 KAR 30:035
40 C.F.R. Part 261	401 KAR Chapter 31
40 C.F.R. 261 Subpart A	401 KAR 31 010
40 C.F.R. 261 Subpart B	401 KAR 31:020
40 C.F.R. 261 Subpart C	401 KAR 31:030
40 C.F.R. 261 Subpart D	401 KAR 31 040
40 C.F.R. Part 262	401 KAR Chapter 32
40 C.F.R. 262 Subpart A	401 KAR 32 010
40 C.F.R. 262 Subpart B	401 KAR 32:020
40 C.F.R. 262 Subpart C	401 KAR 32:030
40 C.F.R. 262 Subpart D	401 KAR 32:040
40 C.F.R. 262 Subpart E	401 KAR 32:050, Sections 1-9
40 C.F.R. 262 Subpart F	401 KAR 32:050, Section 10
40 C.F.R. 262 Subpart G	401 KAR 32:060
40 C.F.R. 262 Subpart H	401 KAR 32:065
40 C.F.R. Part 263	401 KAR Chapter 33
40 C.F.R. 263 Subpart A	401 KAR 33 010
40 C.F.R. 263 Subpart B	401 KAR 33 020
40 C.F.R. 263 Subpart C	401 KAR 33 030
40 C.F.R. Part 264	401 KAR Chapter 34
40 C.F.R. 264 Subpart A	401 KAR 34:010
40 C.F.R. 264 Subpart B	401 KAR 34 020
40 C.F.R. 264 Subpart C	401 KAR 34:030
40 C.F.R. 264 Subpart D	401 KAR 34:040
40 C.F.R. 264 Subpart E	401 KAR 34:050
40 C.F.R. 264 Subpart F	401 KAR 34:060
40 C.F.R. 264 Subpart G	401 KAR 34:070
40 C.F.R. 264 Subpart H	401 KAR 34:080, 401 KAR 34:090, 401 KAR 34:100, 401 KAR 34:110, 401 KAR 34 120, 401 KAR 34:130
40 C.F.R. 264 Subpart I	401 KAR 34 180
40 C.F.R. 264 Subpart J	401 KAR 34 190
40 C.F.R. 264 Subpart K	401 KAR 34 200
40 C.F.R. 264 Subpart L	401 KAR 34:210
40 C.F.R. 264 Subpart M	401 KAR 34:220
40 C.F.R. 264 Subpart N	401 KAR 34 230
40 C.F.R. 264 Subpart O	401 KAR 34:240
40 C.F.R. 264 Subpart S	401 KAR 34:287
40 C.F.R. 264 Subpart W	401 KAR 34:285
40 C.F.R. 264 Subpart X	401 KAR 34:250
40 C.F.R. 264 Subpart AA	401 KAR 34:275
40 C.F.R. 264 Subpart BB	401 KAR 34:280
40 C.F.R. 264 Subpart CC	401 KAR 34:281
40 C.F.R. 264 Subpart DD	401 KAR 34:245
40 C.F.R. 264 Subpart EE	401 KAR 34:370
40 C.F.R. Part 265	401 KAR Chapter 35
40 C.F.R. 265 Subpart A	401 KAR 35 010
40 C.F.R. 265 Subpart B	401 KAR 35 020
40 C.F.R. 265 Subpart C	401 KAR 35 030
40 C.F.R. 265 Subpart D	401 KAR 35:040
40 C.F.R. 265 Subpart E	401 KAR 35:050
40 C.F.R. 265 Subpart F	401 KAR 35:060

40 C.F.R. 265 Subpart G	401 KAR 35 070
40 C.F.R. 265 Subpart H	401 KAR 35 080, 401 KAR 35 090, 401 KAR 35 100, 401 KAR 35:110, 401 KAR 35:120, 401 KAR 35 130
40 C.F.R. 265 Subpart I	401 KAR 35:180
40 C.F.R. 265 Subpart J	401 KAR 35:190
40 C.F.R. 265 Subpart K	401 KAR 35:200
40 C.F.R. 265 Subpart L	401 KAR 35:210
40 C.F.R. 265 Subpart M	401 KAR 35:220
40 C.F.R. 265 Subpart N	401 KAR 35:230
40 C.F.R. 265 Subpart O	401 KAR 35 240
40 C.F.R. 265 Subpart P	401 KAR 35 250
40 C.F.R. 265 Subpart Q	401 KAR 35 260
40 C.F.R. 265 Subpart R	401 KAR 35 270
40 C.F.R. 265 Subpart W	401 KAR 35:285
40 C.F.R. 265 Subpart AA	401 KAR 35:275
40 C.F.R. 265 Subpart BB	401 KAR 35:280
40 C.F.R. 265 Subpart CC	401 KAR 35 281
40 C.F.R. 265 Subpart DD	401 KAR 35 245
40 C.F.R. 265 Subpart EE	401 KAR 35:350
40 C.F.R. Part 266	401 KAR Chapter 36
40 C.F.R. 266 Subpart C	401 KAR 36:030
40 C.F.R. 266 Subpart F	401 KAR 36:060
40 C.F.R. 266 Subpart G	401 KAR 36:070
40 C.F.R. 266 Subpart H	401 KAR 36:020
40 C.F.R. 266 Subpart M	401 KAR 36:080
40 C.F.R. 266 Subpart N	401 KAR 36:090
40 C.F.R. Part 268	401 KAR Chapter 37
40 C.F.R. 268 Subpart A	401 KAR 37.010
40 C.F.R. 268 Subpart B	401 KAR 37:020
40 C.F.R. 268 Subpart C	401 KAR 37:030
40 C.F.R. 268 Subpart D	401 KAR 37 040
40 C.F.R. 268 Subpart E	401 KAR 37.050
40 C.F.R. Part 270	401 KAR Chapter 38
40 C.F.R. 270 Subpart A	401 KAR 38 010
40 C.F.R. 270 Subpart B	401 KAR 38:070, 401 KAR 38:080, 401 KAR 38:090, 401 KAR 38:150 through 401 KAR 38 310
40 C.F.R. 270 Subpart C	401 KAR 38:030
40 C.F.R. 270 Subpart D	401 KAR 38:040, Sections 1 through 4, 7
40 C.F.R. 270 Subpart E	401 KAR 38 040, Sections 5 and 6
40 C.F.R. 270 Subpart F	401 KAR 38 060
40 C.F.R. 270 Subpart G	401 KAR 38 020
40 C.F.R. 270 Subpart H	401 KAR 38 320
40 C.F.R. 270 Subpart I	401 KAR 38:330
[40 C.F.R. 270 Subpart J	401 KAR 38:340]
40 C.F.R. Part 124	401 KAR 38:050
40 C.F.R. Part 273	401 KAR Chapter 43
40 C.F.R. 273 Subpart A	401 KAR 43 010
40 C.F.R. 273 Subpart B	401 KAR 43 020
40 C.F.R. 273 Subpart C	401 KAR 43:030
40 C.F.R. 273 Subpart D	401 KAR 43:040
40 C.F.R. 273 Subpart E	401 KAR 43:050
40 C.F.R. 273 Subpart F	401 KAR 43:060 [43-070]
40 C.F.R. 273 Subpart G	401 KAR 43:070 [43-080]
40 C.F.R. Part 279	401 KAR Chapter 44
40 C.F.R. 279 Subpart A	401 KAR 44 005
40 C.F.R. 279 Subpart B	401 KAR 44:010
40 C.F.R. 279 Subpart C	401 KAR 44:020
40 C.F.R. 279 Subpart D	401 KAR 44:030
40 C.F.R. 279 Subpart E	401 KAR 44 040
40 C.F.R. 279 Subpart F	401 KAR 44 050
40 C.F.R. 279 Subpart G	401 KAR 44 060
40 C.F.R. 279 Subpart H	401 KAR 44 070

40 C.F.R. 279 Subpart I	401 KAR 44 080
-------------------------	----------------

(2) The requirements of the following federal regulations, which are referenced in 401 KAR Chapter 37, shall include the modifications, exceptions, and additions that are specific to the Commonwealth of Kentucky set forth in the following state administrative regulations referenced in the table below.

Federal Regulation	State Regulation
40 C.F.R. 260.10	401 KAR 30 005, 401 KAR 30 020, 401 KAR 31 005, 401 KAR 32 005, 401 KAR 33 005, 401 KAR 34 005, 401 KAR 35 005, 401 KAR 36 005, 401 KAR 37 005, 401 KAR 38 005, 401 KAR 43 005, and 401 KAR 44 005
40 C.F.R. 260 22	401 KAR 30:035 [30-030], Section 3(2) and (3)
40 C.F.R. 261 4	401 KAR 31 010, Section 4
40 C.F.R. 264 221	401 KAR 34 200, Section 2
40 C.F.R. 264 1082	401 KAR 34 281, Section 2
40 C.F.R. 266 205	401 KAR 36 080, Section 6
40 C.F.R. 268.49 [268.44]	401 KAR 37:040, Section 10 [6]
40 C.F.R. 270 61	401 KAR 38 060, Section 2

(3) The following federal regulations, which are cited by the federal regulations referenced in 401 KAR Chapter 37, shall be replaced with the state administrative regulations as identified in the table below.

Federal Regulation	State Regulation
40 C.F.R. Part 60 Appendix A	401 KAR 59.020
40 C.F.R. Part 124	401 KAR 38 060
40 C.F.R. Part 257	401 KAR Chapter 47
40 C.F.R. Part 258	401 KAR Chapter 48
40 C.F.R. 264 140	401 KAR 34 080, Section 2
40 C.F.R. 264 141	401 KAR 34 080, Section 1 [3]
40 C.F.R. 264 142	401 KAR 34 090, Section 1
40 C.F.R. 264.143	401 KAR 34 090, Sections 2 through 12
40 C.F.R. 264 144	401 KAR 34 100, Section 1
40 C.F.R. 264 145	401 KAR 34 100, Sections 2 through 12
40 C.F.R. 264 146	401 KAR 34 110
40 C.F.R. 264 147	401 KAR 34 120
40 C.F.R. 264 148	401 KAR 34 130
40 C.F.R. 265 140	401 KAR 35 080, Section 2
40 C.F.R. 265 141	401 KAR 35 080, Section 1
40 C.F.R. 265 142	401 KAR 35 090, Section 1
40 C.F.R. 265.143	401 KAR 35 090, Sections 2 through 11
40 C.F.R. 265 144	401 KAR 35:100, Section 1
40 C.F.R. 265 145	401 KAR 35:100, Sections 2 through 11
40 C.F.R. 265 146	401 KAR 35 110
40 C.F.R. 265 147	401 KAR 35 120
40 C.F.R. 265.148	401 KAR 35 130
40 C.F.R. 266 Appendix I, Table I-D	401 KAR 36 025, Section 1(2)(a)
40 C.F.R. 266 Appendix I, Table I-E	401 KAR 36 025, Section 1(2)(b)
40 C.F.R. 268 42, Table 1	401 KAR 37:040, Section 3 Table 1
40 C.F.R. 270 51	401 KAR 38 040, Section 6
40 C.F.R. Part 280	401 KAR Chapter 42

[Section 1. Definitions. Unless otherwise specifically defined in KRS Chapter 224 or otherwise specifically indicated by context, terms in 401 KAR Chapter 37 shall have the meanings given in this Section.

(1) "100-year floodplain" means any land area which is subject to a one (1) percent or greater chance of flooding in any given year from any source.

(2) "100-year flood" means a flood that has a one (1) percent

chance of being equaled or exceeded in any given year.

(3) "Aboveground tank" means a device meeting the definition of "tank" and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

(4) "Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

(5) "Accumulated speculatively" means that a material is accumulated before being recycled.

(a) A material is not accumulated speculatively, if the person accumulating it can show:

1. That the material is potentially recyclable and has a feasible means of being recycled, and

2. That during the calendar year (commencing on January 1) the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five (75) percent by weight or volume of the amount of that material accumulated at the beginning of the calendar year (including any material accumulated from previous years).

(b) In calculating the percentage of turnover, the seventy-five (75) percent requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units that would be exempt from administrative regulation under Section 4(3) of 401 KAR 31 010 are not to be included in making the calculation. (Materials that are already defined as wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling.

(6) "Active fault" means a land area which, according to the weight of geological evidence, has a reasonable probability of being affected by movement along a fault to the extent that a waste site or facility would be damaged and thereby pose a threat to human health and the environment.

(7) "Active life" of a facility means the period from the initial receipt of waste at a waste site or facility until the cabinet receives certification of final closure.

(8) "Active portion" means any area of a facility where treatment, storage, or disposal operations are being or have been conducted and which have not been closed. It includes the treated area of a landfill and the active face of a landfill. Covered, closed, or inactive portions of landfills, building roofs, and roads are excluded unless designated as "active portions" by the cabinet.

(9) "Admixed liner" means a liner made from a mixture of any of a multitude of materials, often asphalt or cement, with widely varying physical and chemical properties. Admixed liners shall be demonstrated to be structurally sound and chemically resistant to the waste placed in it so as to be capable of supporting the waste without cracking or disintegrating or allowing waste or leachate to escape.

(10) "Agricultural waste" means any nonhazardous waste resulting from the production and processing of on-the-farm agricultural products, including manures, prunings and crop residues.

(11) "Air stripping operation" is a desorption operation employed to transfer one (1) or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(12) "Ampule" means a small sealed glass container for one (1) dose of sterile medicine.

(13) "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to hazardous waste management units including tanks between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal off site.

(14) "Application" means the form approved by the cabinet for applying for a permit, including any additions, revisions or modifications and any narrative and drawings required by 401 KAR Chapters 30 to 48. The term includes Part A of the application (Part A);

Part B of the application (Part B); notice of intent; administration application; special waste application; or technical application.

(15) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(16) "As received waste" refers to the waste as received in the shipment from the generator or sample collector.

(17) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

(18) "Attenuation" means any decrease in the maximum concentration or total quantity of an applied chemical or biological constituent in a fixed time or distance traveled resulting from a physical, chemical, or biological reaction or transformation occurring in the zone of aeration or zone of saturation.

(19) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit or part of a facility, such as the plant manager, superintendent, or person of equivalent responsibility.

(20) "Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Section 4 of 401 KAR 35.281.

(21) "Base flood" means a flood that has a one (1) percent or greater chance of recurring in any year, or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

(22) "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(23) "Board" shall have the meaning specified in KRS 224.46-810.

(24) "Bodily injury" shall have the meaning given by applicable Kentucky statutes. Bodily injury does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for bodily injury.

(25) "Boiler" means an enclosed device using control flame combustion and having the following characteristics:

(a)1. The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

2. The unit's combustion chamber and primary energy recovery section(s) shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section (such as water walls and superheaters) shall be physically formed into one (1) manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section are joined only by ducts or connections carrying flue gas is not integrally designed, however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream) and fluidized bed combustion units; and

3. While in operation, the unit shall maintain a thermal energy recovery efficiency of at least sixty (60) percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

4. The unit shall export and utilize at least seventy-five (75) percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(b) The unit is one (1) which the cabinet has determined, on a case by case basis, to be a boiler, after considering the standards in 401 KAR 30.080.

(26) "Bottoms receiver" means a container or tank used to receive and collect heavier bottoms fractions of the distillation feed

stream that remain in the liquid phase.

(27) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

(28) "By-product" is a material that is not one (1) of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as sludge or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(29) "Cabinet" shall have the meaning specified in KRS 224.01-010.

(30) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(31) "Cation exchange capacity" means the sum of exchangeable cations a soil can absorb expressed in milliequivalents per 100 grams of soil as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the summation method for distinctly acid soils or the sodium acetate method for neutral, calcareous, or saline soils.

(32) "Certificate" shall have the meaning specified in KRS 224.46-810.

(33) "Certification" means a statement of professional opinion based upon knowledge and belief.

(34) "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements.

(35) "Closed vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(36) "Closure plan" means the plan for closure prepared in accordance with the requirements of Section 3 of 401 KAR 34.070 or Section 3 of 401 KAR 35.070.

(37) "Closure" shall have the meaning specified in KRS 224.01-010.

(38) "Component" means either the tank or ancillary equipment of a tank system.

(39) "Condenser" means a heat transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(40) "Conditionally exempt small quantity generator" means:

(a) A generator who generates no more than 100 kilograms of hazardous waste in a calendar month; or

(b) A generator who generates acutely hazardous waste listed in Sections 2, 3, and 4(5) of 401 KAR 31.040 in a calendar month in quantities no greater than one (1) kilogram. All quantities of that acutely hazardous waste are subject to administrative regulation under 401 KAR Chapters 32 through 30, and the notification and permitting requirements of KRS 224.01-400, 224.40-310, 224.46-510, 224.46-580, and 224.50-130 to 224.50-413.

(41) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

(42) "Connector" means flanged, screwed, welded, or other joined fitting used to connect two (2) pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(43) "Consignee" means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste is sent.

(44) "Constituent" shall have the same meaning as "hazardous waste constituent."

(45) "Container" means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves (for example, tank trucks, tanker trailers, and rail tank cars), and containers placed on or in a transport vehicle.

(46) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 401 KAR 34.245 or 35.245.

(47) "Contaminate" means introduce a substance that would cause:

(a) The concentration of that substance in the groundwater to

exceed the maximum contaminant level specified in 401 KAR 30.031, Sections 5 and 6 of 401 KAR 47.030, or Section 8 of 401 KAR 34.060;

(b) An increase in the concentration of that substance in the groundwater where the existing concentration of that substance exceeds the maximum contaminant level specified in 401 KAR 30.031, 401 KAR 47.030, or Section 8 of 401 KAR 34.060, or

(c) A significant increase above established background levels, for substances that do not have an established maximum contamination level.

(48) "Contamination" means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

(49) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or release of waste or waste constituents into the environment which has the potential for endangering human health and the environment. Financial planning to identify resources for initiation of such action is a part of contingency plan development.

(50) "Continuous recorder" means a data recording device recording an instantaneous data value at least once every 15 minutes.

(51) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(52) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (for example, a primary condenser on a solvent recovery unit) is not a control device.

(53) "Corrective action management unit" or "CAMU" means an area within a facility that is designated by the cabinet under 401 KAR 34.287, for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34.060 and KRS 224.46-520. A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(54) "Cover" means a device or system which is placed on or over a hazardous waste such that the entire hazardous waste surface area is enclosed and sealed to reduce air emissions to the atmosphere. A cover may have openings such as access hatches, sampling ports, and gauge wells that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is installed provided that each opening is closed and sealed when not in use. Examples of covers include a fixed roof installed on a tank, a floating membrane cover installed on a surface impoundment, a lid installed on a drum, and an enclosure in which an open container is placed during waste treatment.

(55) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(56) "Current closure cost estimates" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34.090 or Section 1(1), (2) and (3) of 401 KAR 35.090.

(57) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(58) "Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 40 C.F.R. 144.62(a), (b), and (c).

(59) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34.100 or Section 1(1), (2) and (3) of 401 KAR 35.100.

(60) "Debris" means solid material exceeding a 60mm particle size that is intended for disposal and that is: a manufactured object, plant or animal matter, or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in 401 KAR 37.040, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues;

and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section 6 of 401 KAR 37.040 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(61) "Designated facility" means a hazardous waste treatment, storage, or disposal facility which:

(a) Has received a hazardous waste site or facility permit (or a facility with interim status) in accordance with the requirements of 401 KAR Chapter 38,

(b) Has received a permit from a state authorized in accordance with 40 C.F.R. Part 271, and EPA permit (or a facility with interim status) in accordance with 40 C.F.R. Parts 270 and 124; or

(c) Is regulated under Section 6(3)(b) of 401 KAR 31.010 or 401 KAR Chapter 36, 40 C.F.R. 261.6(c)(2) or 40 C.F.R. Part 266; and

(d) That has been designated on the manifest by the generator pursuant to Section 1 of 401 KAR 32.020. If a waste is destined to a hazardous waste site or facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept that waste.

(62) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Section 4(1) and (3) of 401 KAR 43.020 and Section 4(1) and (3) of 401 KAR 43.030. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(63) "Destruction or adverse modification" means an alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(64) "Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

(65) "Direct transfer equipment" means any device (including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (for example, transport vehicle) and a boiler or industrial furnace.

(66) "Disposal" shall have the meaning specified in KRS 224.01-010.

(67) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(68) "Distillate receiver" means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(69) "Distillation operation" means an operation, either batch or continuous, separating one (1) or more feed stream(s) into two (2) or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(70) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(71) "Double block and bleed system" means two (2) block valves connected in series with a bleed valve or line that can vent the line between the two (2) block valves.

(72) "Draft permit" shall have the same meaning as "proposed permit".

(73) "Dnp pad" means an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run on to an associated collection system at wood preserving plants.

(74) "Effluent Limitations" shall have the same meaning as KRS 224.01-010.

(75) "Elementary neutralization unit" means a device which:

(a) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section 3 of 401 KAR 31:030, or they are listed in 401 KAR 31:040 only for this reason; and

(b) Meets the definition of tank, tank system, container, transport vehicle, or vessel in this section.

(76) "Emergency permit" means a permit issued by the cabinet to temporarily store, treat or dispose of hazardous waste in accordance with the provisions of Section 2 of 401 KAR 38:060, to temporarily manage, process, or dispose of a solid waste in accordance with the provisions of Section 2 of 401 KAR 47:150 or to temporarily store, treat, or dispose of special waste in accordance with the provisions of Section 1 of 401 KAR 45:135.

(77) "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Endangered Species Act, as amended, 16 U.S.C. 1536.

(78) "Engineer" shall have the meaning specified in KRS 322.010. An independent, professional engineer shall be registered in Kentucky pursuant to KRS 322.040 and shall be qualified to engage in waste management engineering practices.

(79) "EPA acknowledgment of consent" means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

(80) "EPA hazardous waste number" means the number assigned by EPA and the cabinet to each hazardous waste listed in 401 KAR 31:040, and to each characteristic identified in 401 KAR 31:030.

(81) "EPA identification number" means the number assigned by EPA or the cabinet to each generator, transporter, or treatment, storage, or disposal facility.

(82) "Ephemeral stream" means a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and which has a channel bottom that is always above the local water table.

(83) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by 401 KAR 34:275.

(84) "Equivalent method" means any testing or analytical method, approved jointly by the administrator and the secretary under 401 KAR Chapter 31, or methods in 401 KAR Chapters 47 and 48, approved by the secretary of the cabinet.

(85) "Existing" indicates a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning, or processing hazardous waste or for which construction (including the ancillary facilities to burn or to process the hazardous waste) has commenced.

(86) "Existing component" shall have the same meaning as "existing tank system."

(87) "Existing facility" shall have the same meaning as "existing hazardous waste site or facility."

(88) "Existing hazardous waste site or facility" means a hazardous waste facility which was in operation, or for which continuous construction had commenced, on or before November 10, 1980. A facility has commenced construction if:

(a) The owner or operator had obtained the federal, state and local approvals or permits necessary to begin physical construction; and

(b) Either:

1. A continuous on-site, physical construction program has begun; or

2. The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(89) "Existing portion" means that land surface area of an existing hazardous waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(90) "Existing tank system" means a tank system or component that is used for the storage or treatment of hazardous waste

and that is in operation, or for which installation commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(a) A continuous on-site physical construction or installation program has begun; or

(b) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(91) "External floating roof" means a pontoon or double-deck type floating roof that rests on the surface of a hazardous waste being managed in a tank that has no fixed roof.

(92) "Face amount" means the total amount the insurer is obligated to pay under the policy.

(93) "Facility" means-

(a) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one (1) or more landfills, surface impoundments, or combinations of them).

(b) For the purpose of implementing corrective action under Section 12 of 401 KAR 34:060, all contiguous property under the control of the owner or operator seeking a hazardous waste permit. This definition also applies to facilities implementing corrective action under KRS 224.46-520.

(94) "Facility mailing list" means the mailing list for a facility maintained in accordance with Section 7(3)(a)4c of 401 KAR 38:060.

(95) "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the United States Government Printing Office.

(96) "Federal, state, and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, administrative regulations, or ordinances.

(97) "Final closure" of a hazardous waste site or facility means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 401 KAR Chapters 34 and 35 are no longer conducted at the facility unless subject to the provisions in Section 5 of 401 KAR 32:030.

(98) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(99) "Fiscal year" means a twelve (12) month period for accounting and other financial purposes.

(100) "Fixed roof" means a rigid cover that is installed in a stationary position so that it does not move with fluctuations in the level of the hazardous waste placed in a tank.

(101) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(102) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

(103) "Floating roof" means a pontoon type or double-deck type cover that rests upon and is supported by the hazardous waste being managed in a tank, and is equipped with a closure seal or seals to close the space between the cover edge and the tank wall.

(104) "Flood plain" means areas adjoining inland waters which are inundated by the base flood, unless otherwise specified in 401 KAR 30:031 or 401 KAR 47:030, and includes: 100-year floodplain and floodway.

(105) "Floodway" means the channel of the waterway, stream or river and that portion of the adjoining floodplain which provides for passage of the 100-year flood flow without increasing the floodwater depth across the 100-year floodplain by more than one (1) foot.

(106) "Flow indicator" means a device that indicates whether

gas flow is present in a vent stream.

(107) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for food for animals whose products are consumed by humans.

(108) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(109) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(110) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

(111) "Generator" shall have the meaning specified in KRS 224.01-010.

(112) "Governing body" shall have the same meaning as KRS 224.01-010.

(113) "Groundwater" means the subsurface water occurring in the zone of saturation beneath the water table, and perched water zones below the B soil horizon, including water circulating through fractures, bedding planes, and solution conduits.

(114) "Groundwater table" means the upper boundary of the saturated zone in which the hydrostatic pressure of the groundwater is equal to the atmospheric pressure.

(115) "Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond that are listed under 401-KAR-37:110.

(116) "Hazardous constituent" shall have the meaning specified in KRS 224.01-010.

(117) "Hazardous debris" means debris that contains a hazardous waste listed in 401-KAR-31:040 or that exhibits a characteristic of hazardous waste identified in 401-KAR-31:030.

(118) "Hazardous waste" shall have the meaning specified in KRS 224.01-010.

(119) "Hazardous waste constituent" means a constituent which caused the cabinet to list the hazardous waste in 401-KAR-31:040, or a constituent listed in Section 5(3) of 401-KAR-31:030.

(120) "Hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(121) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed. Hazardous waste management units include: aboveground tank; component; existing tank system or existing component; in-ground tank; new tank system or new tank component; on-ground tank; tank system; underground tank; or unfit-for-use tank system.

(122) "Hazardous waste management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than twenty-four (24) hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(123) "Hazardous waste site or facility" means any place at which hazardous waste is treated, stored, or disposed of by landfilling, incineration, or any other method. Hazardous waste site or facility includes: boiler; disposal facility; elementary neutralization unit; incinerator; industrial furnace; hazardous waste transfer facility; injection well; landfill; land treatment facility; miscellaneous unit; pile or waste pile; replacement unit; storage facility; sludge dryer; surface impoundment; tank; thermal treatment facility; totally enclosed treatment facility; treatment facility; or wastewater treatment

unit.

(124) "Hazardous waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(125) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene to the present.

(126) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum jet or steam jet ejector.

(127) "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(128) "In existence" shall have the same meaning as "existing."

(129) "In gas service" means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(130) "In heavy liquid service" means that the piece of equipment is not in gas service or in vapor service or in light liquid service.

(131) "In light liquid service" means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one (1) or more of the components in the stream is greater than three tenths (0.3) kilopascals (kPa) at twenty (20) degrees Centigrade, the total concentration of the pure components having a vapor pressure greater than three tenths (0.3) kPa at twenty (20) degrees Centigrade is equal to or greater than twenty (20) percent by weight, and the fluid is a liquid at operating conditions.

(132) "In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

(133) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(134) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(135) "In vapor service" shall have the same meaning as "in gas service".

(136) "In-ground tank" means a device meeting the definition of "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

(137) "Inactive portion" means that portion of a hazardous waste site or facility which was not operated after November 19, 1980.

(138) "Incinerator" means any enclosed device that:

(a) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(b) Meets the definition of infrared incinerator or plasma arc incinerator.

(139) "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device or facility because it may cause corrosion or decay of containment materials, or unsuitable for commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(140) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

(141) "Individual generation site" means the contiguous site at or on which one (1) or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one (1) or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(142) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(a) Cement kilns;

(b) Lime kilns;

- (c) Aggregate kilns;
- (d) Phosphate kilns;
- (e) Coke ovens;
- (f) Blast furnaces;
- (g) Smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);
- (h) Titanium dioxide chloride process oxidation reactors;
- (i) Methane reforming furnaces;
- (j) Pulping liquor recovery furnaces;
- (k) Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(l) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least three (3) percent, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of twenty (20) percent as generated, or

(m) Other devices as the cabinet may, after notice and comment, add to this list on the basis of criteria and Section 5 of 401 KAR 30.080.

(143) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(144) "Injection well" means a well into which fluids are injected to achieve subsurface emplacement.

(145) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained hazardous waste or reagents used to treat the hazardous waste.

(146) "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of a hazardous waste management unit including tank systems.

(147) "Interim status" means the designation of a hazardous waste site or facility which was in existence on November 19, 1980, and has submitted a Part A application under 401 KAR Chapter 38 or under 40 C.F.R. Part 270 and is treated as having a permit until final administrative disposition of the application is made.

(148) "Intermittent stream" means a stream or reach of stream that drains a watershed of one (1) square mile or more but does not flow continuously during the calendar year.

(149) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

(150) "Internal floating roof" means a floating roof that rests or floats on the surface (but not necessarily in complete contact with it) of a hazardous waste being managed in a tank that has a fixed roof.

(151) "Karst terrain" means a type of topography where limestone, dolomite or gypsum is present and is characterized by naturally occurring closed topographic depressions or sinkholes, caves, disrupted surface drainage, and well developed underground solution channels formed by dissolution of these rocks by water moving underground.

(152) "Key personnel" shall have the meaning specified in KRS 224.01-010.

(153) "Lab pack" means any large container equal to or smaller than fifty-five (55) gallons that holds many smaller containers of various content tightly secured with packing material.

(154) "Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infrared (IR) regions of the electromagnetic spectrum. Examples of common lamps include, but is not limited to, incandescent, fluorescent, high pressure sodium, mercury vapor, metal halide, high intensity discharge, and neon lamps.

(155) "Land disposal" shall have the meaning specified in KRS 224.01-010.

(156) "Land treatment facility" means a facility or part of a facil-

ity at which hazardous waste is applied onto or incorporated into the soil surface. These facilities are disposal facilities if the waste will remain after closure.

(157) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(158) "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(159) "Large quantity handler of universal waste" means a universal waste handler who accumulates 5,000 kilograms or more total universal waste (bathtubs, lamps, pesticides, or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

(160) "Leachate" means any liquid including any suspended components in the liquid, that has percolated through or drained from waste.

(161) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment system or the presence of a release of hazardous waste, hazardous waste constituents or accumulated liquid in the secondary containment system. Such a system shall employ operational controls (daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment system or the presence of a release of hazardous waste constituents or accumulated liquids into the secondary containment system.

(162) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

(163) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(164) "Liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility.

(165) "Liquid mounted seal" means a foam or liquid filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank.

(166) "Local government" means the fiscal court of the county, urban county government, or governing body of an incorporated municipality wherein a hazardous waste landfill or other site or facility for the land disposal of hazardous waste is proposed.

(167) "Major modification" means for hazardous waste sites or facilities, a change in ownership where the cabinet determines that other changes in the permit are necessary as a result of the change in ownership or operational control, area occupied, disposal method, or other significant change in the operation of a waste site or facility. (Note: Minor modifications are described in Section 3 of 401 KAR 38.040).

(168) "Malfunction" means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

(169) "Manifest" shall have the meaning specified in KRS 224.01-010.

(170) "Manifest document number" means the EPA twelve (12) digit identification number assigned to the generator plus a unique, serially increasing, five (5) digit document number assigned to the manifest by the generator for recordkeeping and reporting purposes.

(171) "Maximum organic vapor pressure" means the equilibrium partial pressure exerted by the hazardous waste contained in a tank determined at the temperature equal to either:

(a) The local maximum monthly average temperature as reported by the National Weather Service when the hazardous waste is stored or treated at ambient temperature; or

(b) The highest calendar month average temperature of the hazardous waste when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature.

(172) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(173) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of, and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 C.F.R. Part 146, containment building, corrective action management unit, or unit eligible for a research, development, and demonstration permit under Section 6 of 401 KAR 38-060.

(174) "Monitoring" means the act of systematically inspecting and collecting data on operational parameters or on the quality of the air, soil, groundwater, or surface water.

(175) "Monitoring well" means a well used to obtain water samples for water quality and quantity analysis and groundwater levels.

(176) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(177) "Net working capital" means current assets minus current liabilities.

(178) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

(179) "New facility" means any hazardous waste site or facility that commenced construction after November 19, 1980.

(180) "New tank component" shall have the same meaning as "new tank system."

(181) "New tank system" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation commenced after July 14, 1986, however, for purposes of Section 4(7)(b) of 401 KAR 34:190 and Section 4(7)(b) of 401 KAR 35:190, a new tank system is one for which construction commenced after July 14, 1986.

(182) "No detectable organic emissions" means no escape of organics from a device or system to the atmosphere as determined by an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal when measured in accordance with the requirements of Method 21 in 40 C.F.R. Part 60, Appendix A, and by no visible openings or defects in the device or system such as rips, tears, or gaps.

(183) "Nonsudden accidental occurrence" means an occurrence that takes place over time and involves continuous or repeated exposure.

(184) "Nonwastewaters" means wastes that do not meet the criteria for wastewaters found in the definition for wastewaters.

(185) "Not detected" means at or below the lower method calibration limit (MCL) in SW 846, Method 8200, Table 1.

(186) "Off-site" means properties noncontiguous to the site.

(187) "On-site" means on the same or geographically contiguous property which may be divided by public or private right of way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right of way. Noncontiguous properties owned by the same person but connected by a right of way which he controls and to which the public does not have access is also considered on-site property.

(188) "Onground tank" means a device meeting the definition of tank that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(189) "Open burning" means the combustion of any material or

solid waste without:

(a) Control of combustion air to maintain adequate temperature for efficient combustion;

(b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) Control of emission of the gaseous combustion products.

(190) "Open-ended valve or line" means any valve, except pressure relief valves, having one (1) side of the valve seat in contact with process fluid and one (1) side open to the atmosphere, either directly or through open piping.

(191) "Operational plan" means the approved plan of operations filed with the cabinet which describes the method of operation that the permittee will use in the treatment, storage, or disposal of wastes.

(192) "Operator" means any person responsible for overall operation of an on-site or off-site waste facility, including any private contractor conducting operational activities at a federal facility.

(193) "Other site or facility for the land disposal of hazardous waste" means a disposal facility but shall not include a storage facility or a treatment facility.

(194) "Owner" means any person who owns an on-site or off-site waste facility, or any part of a facility.

(195) "Parent corporation" means a corporation which directly owns at least fifty (50) percent of the voting stock of the corporation which is the facility owner or operator, the latter corporation is deemed a "subsidiary" of the parent corporation.

(196) "Part A of the application" or "Part A" means the standard forms or format for applying for a hazardous waste site or facility permit as required in 401 KAR 38-080.

(197) "Part B of the application" or "Part B" means the standard format for applying for a hazardous waste site or facility permit as required in 401 KAR 38-090 to 401 KAR 38-210.

(198) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 401 KAR Chapters 34 and 35 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(199) "Perennial stream" means a stream or that part of a stream that flows continuously during all of the calendar year as a result of groundwater discharge or surface run-off. The term does not include "intermittent stream" or "ephemeral stream".

(200) "Permit" means the authorization or other control document issued by the cabinet to implement the requirements of the waste management administrative regulations. The term permit includes permit by rule, registered permit by rule, research, development, and demonstration permit, and emergency permit. However, the term permit does not include draft permit or proposed permit.

(201) "Permit by rule" means authorization allowing certain classes of sites or facilities to manage waste consistent with 401 KAR Chapters 30 to 49, without submission of a registration or permit application to the cabinet. Examples of hazardous waste sites or facilities which are permitted by rule include facilities operating under an interim status permit and facilities identified in Section 1 of 401 KAR 38-060.

(202) "Permittee" means any person holding a valid permit issued by the cabinet to manage, treat, store, or dispose of waste.

(203) "Person" shall have the meaning specified in KRS 224-01-010.

(204) "Personnel" or "facility personnel" means all persons who work at or oversee the operations of a waste facility, and whose actions or failure to act may result in noncompliance with the requirements of the waste management administrative regulations.

(205) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that

(a) is a new animal drug under FFDC section 201(w), or

(b) is an animal drug that has been determined by regulation of

the Secretary of Health and Human Services not to be a new animal drug, or

(c) to an animal feed under FFDCFA section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this subsection.

(206) "Pile" or "waste pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

(207) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(208) "Point of compliance" means for hazardous waste site and facilities, groundwater monitoring wells located within 250 feet of the waste boundary as approved by the cabinet.

(209) "Point of waste origination" means as follows:

(a) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as identified in 401 KAR Chapter 31.

(b) When the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

(210) "Point of waste treatment" means the point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste.

(211) "Point source" means any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(212) "Pollutant" shall have the same meaning as KRS 224.01-010.

(213) "Polychlorinated biphenyls" or "PCB" means halogenated organic compounds defined in accordance with 40 C.F.R. 761.2 as of July 1980.

(214) "Postclosure care" means the manner in which a facility shall be maintained when it no longer accepts waste for disposal.

(215) "Postclosure monitoring and maintenance" shall have the meaning specified in KRS 224.01-010.

(216) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of Sections 8 to 11 of 401 KAR 34-070 or Sections 8 to 11 of 401 KAR 35-070.

(217) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(218) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Section 1 of 401 KAR 32-020 which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(219) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(220) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations.

(221) "Property damage" shall have the meaning given by applicable Kentucky statute. Property damage does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for property damage.

(222) "Proposed permit" means a document prepared by the cabinet indicating the cabinet's tentative decision to issue or deny, modify, revoke or terminate a permit.

(223) "Publicly owned treatment works" or "POTW" shall have

the meaning specified in KRS 224.01-010.

(224) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the based on pump activation level, pump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(225) "Qualified groundwater scientist" means a geologist registered in Kentucky who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields to enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

(226) "Receiving country" means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short-term storage incidental to transportation).

(227) "Recharge zone" means an area supplying the water which enters an underground drinking water source.

(228) "Reclaimed" means a material that is processed to recover a usable product, or that is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(229) "Recovered material" shall have the meaning specified in KRS 224.01-010.

(230) "Recyclable materials" means hazardous wastes that are recycled.

(231) "Recycled" means a material that is used, reused, or reclaimed.

(232) "Recycling" shall have the meaning specified in KRS 224.01-010.

(233) "Regional integrated waste treatment and disposal demonstration facility" shall have the meaning specified in KRS 224.01-010.

(234) "Regulated unit" means hazardous waste land disposal sites or facilities, or portions of existing hazardous waste land disposal sites or facilities that continued to receive waste after January 26, 1983.

(235) "Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34-060 and KRS 224.46-520. For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing KRS 224.46-520 for releases beyond the facility boundary.

(236) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(237) "Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or approved corrective action.

(238) "Representative sample" means a sample of a universe or whole (for example, waste pile, lagoon, or groundwater) which can be expected to exhibit the average properties of the universe or whole.

(239) "Research, development, and demonstration permit" means a permit issued by the cabinet for a hazardous waste treatment facility that utilizes an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 401 KAR Chapters 34 through 36.

(240) "Resource recovery" means the recovery of material or energy from waste.

(241) "Run-off" means any rainwater, leachate, or other liquid that drains overland from any part of a facility.

(242) "Run-on" means any rainwater, leachate, or other liquid that drains overland onto any part of a facility.

(243) "Saturated zone" shall have the same meaning as "zone

of saturation”.

(244) “Schedule of compliance” means a schedule of remedial measures included in a permit or cabinet order, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with KRS Chapter 224 and 401 KAR Chapters 20 to 40.

(245) “Scrap metal” is bits and pieces of metal parts (for example, bars, turnings, rods, sheets, or wire) or metal pieces that may be combined together with bolts or soldering (for example, radiators, scrap automobiles, or railroad boxcars), which when worn or superfluous can be recycled.

(246) “Secretary” shall have the meaning specified in KRS 224.01-010.

(247) “Sensor” means a device that measures a physical quantity or the change in a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(248) “Separator tank” means a device used for separation of two immiscible liquids.

(249) “Sewage system” shall have the meaning specified in KRS 224.01-010.

(250) “Site” means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the waste facility or activity.

(251) “Sludge” means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant or any other waste having similar characteristics and effects.

(252) “Sludge dryer” means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet-weight basis.

(253) “Small quantity generator” means a generator who generates more than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month.

(254) “Small quantity handler of universal waste” means a universal waste handler who does not accumulate more than 5,000 kilograms of universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time.

(255) “Solid waste management unit” shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

(256) “Solvent extraction operation” means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two (2) being mutually insoluble) to preferentially dissolve and transfer one (1) or more components into the solvent.

(257) “Sorb” means to either adsorb, absorb, or both.

(258) “Sorbent” means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(259) “Spent material” is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(260) “Spill” means any accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

(261) “Start-up” means the setting in operation of a hazardous waste management unit or control device for any purpose.

(262) “State” means any of the fifty (50) states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Northern Mariana Islands or Guam but does not include any foreign country.

(263) “Steam stripping operation” means a distillation operation in which vaporization of a volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(264) “Storage” shall have the meaning specified in KRS 224.01-010.

(265) “Storage facility” means a facility or part of a facility at

which hazardous waste is held for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere. A generator who accumulates his own hazardous wastes in an approved manner for less than ninety (90) days for subsequent transport on site or off site is not operating or maintaining a storage facility.

(266) “Storage of hazardous waste” means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(267) “Substantial business relationship” means the extent of a business relationship necessary to make a guarantee contract issued incident to that relationship valid and enforceable. A “substantial business relationship” shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the cabinet.

(268) “Sudden accidental occurrence” means an occurrence which is not continuous or repeated in nature.

(269) “Sump” means any pit or reservoir that meets the definition of tank, and those troughs and trenches connected to it, that serves to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities, except that as used in the landfill, surface impoundment, and waste pile administrative regulations, “sump” means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(270) “Surface impoundment” means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(271) “Surge control tank” means a large sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(272) “Tangible net worth” means the tangible assets that remain after deducting liabilities; these assets would not include intangibles such as goodwill and rights to patents or royalties.

(273) “Tank” means a stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonearthen materials (for example, wood, concrete, steel, or plastic) which provide structural support and which does not meet the definition of any other unit.

(274) “Tank system” means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(275) “Termination” shall have the meaning specified in KRS 224.01-010.

(276) “The full amount of the liability coverage to be provided” means the amount of coverage for sudden and nonsudden occurrences required to be provided by the owner or operator, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(277) “Thermal treatment” means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge (see also “incinerator” and “open burning”).

(278) “Thermal treatment facility” means a facility or part of a facility which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

(279) “Thermostat” means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with

the requirements of Section 4(3)(b) of 401-KAR-43.020 or Section 4(3)(b) of 401-KAR-43.030.

(280) "Thin film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(281) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which acid is neutralized.

(282) "Transit country" means any foreign country, other than a receiving country, through which a hazardous waste is transported.

(283) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body is a separate transport vehicle.

(284) "Transportation" shall have the meaning specified in KRS 224.01-010.

(285) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(286) "Treatability study" means:

(a) A study in which a hazardous waste is subjected to a treatment process to determine:

1. Whether the waste is amenable to the treatment process;
2. What pretreatment, if any, is required;
3. The optimal process conditions needed to achieve the desired treatment;
4. The efficiency of a treatment process for a specific waste or wastes; or
5. The characteristics and volumes of residuals from a particular treatment process.

(b) For the purpose of 401-KAR-31.010, Section 4(5) and (6), exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(c) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(287) "Treatment" shall have the meaning specified in KRS 224.01-010.

(288) "Treatment facility" means a facility or part of a facility using any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(289) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(290) "Underground drinking water source" means:

(a) An aquifer supplying drinking water for human consumption; or

(b) An aquifer in which the groundwater contains less than 10,000 mg/l total dissolved solids.

(291) "UIC well" means an underground injection control well as provided in 40 C.F.R. Part 144.

(292) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

(293) "Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

(294) "Underlying hazardous constituent" means any constituent listed in Section 1 of 401-KAR-37.040, Table Treatment Standards for Hazardous Wastes, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent-specific treatment standards.

(295) "Unfit for use tank system" means a tank system that has been determined through an integrity assessment or other

inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(296) "Universal waste" means any of the following hazardous wastes that are subject to the universal waste requirements of 401-KAR-Chapter 43:

- (a) Batteries as described in Section 2 of 401-KAR-43.010;
- (b) Pesticides as described in Section 3 of 401-KAR-43.010;
- (c) Thermostats as described in Section 4 of 401-KAR-43.010;

and

- (d) Spent lamps as described in Section 5 of 401-KAR-43.010.

(297) "Universal waste handler" means:

(a) Means:

1. A generator of universal waste; or

2. The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(b) Does not mean:

1. A person who treats (except under the provisions of Sections 4(1) or (3) of 401-KAR-43.020 or Sections 4(1) or (3) of 401-KAR-43.030), disposes of, or recycles universal waste; or

2. A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(298) "Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

(299) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(300) "Unsaturated zone" shall have the same meaning as "Zone of aeration".

(301) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(302) "Used oil" shall have the same meaning as KRS 224.50-545.

(303) "Used or reused" means a material that is either:

(a) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one (1) process used as feedstock in another process). However, a material shall not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(b) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(304) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(305) "Vapor recovery system" means that equipment, device, or apparatus capable of collecting vapors and gases discharged from a storage tank, and a vapor processing system capable of affecting such vapors and gases so as to prevent their emission into the atmosphere.

(306) "Vapor mounted seal" means a foam-filled primary seal mounted continuously around the circumference of the tank so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.

(307) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (work losses) or by natural means such as diurnal temperature changes.

(308) "Vessel" means any watercraft used or capable of being used as a means of transportation on the water.

(309) "Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement using Method 25D or by knowledge of the waste in accordance with the requirements of Section 4 of 401 KAR 35.281.

(310) "Washout" means the carrying away of waste by waters as a result of flooding.

(311) "Waste" shall have the meaning specified in KRS 224.01-010.

(312) "Waste boundary" means the outermost perimeter of the waste (projected in the horizontal plane) as it would exist at completion of the disposal activity.

(313) "Waste determination" means performing all applicable procedures in accordance with the requirements of Section 4 of 401 KAR 35.281 to determine whether a hazardous waste meets standards specified in 401 KAR Chapter 35. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 4 of 401 KAR 35.281 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the ext concentration limit specified for the process used to treat the hazardous waste; determining the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards, or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

(314) "Waste pile" shall have the same meaning as "pile".

(315) "Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9005 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.010). A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification."

(316) "Wastewaters" means wastes that contain less than one (1) percent by weight total organic carbon (TOC) and less than one (1) percent by weight total suspended solids (TSS), with the following exceptions:

(a) F001, F002, F003, F004, F005, wastewaters are solvent-water mixtures that contain less than one (1) percent by weight TOC or less than one (1) percent by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 1 of 401 KAR 37.040 in Table Treatment Standards for Hazardous Waste,

(b) K011, K013, K014 wastewaters contain less than five (5) percent by weight TOC and less than one (1) percent by weight TSS, as generated, and

(c) K103 and K104 wastewaters contain less than four (4) percent by weight TOC and less than one (1) percent by weight TSS.

(317) "Wastewater treatment unit" means a device that:

(a) Is part of a wastewater treatment facility that is subject to administrative regulation under either section 402 or 307(b) of the CWA;

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 401 KAR 31.010, Section 3; or generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 401 KAR 31.010, Section 3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section 3 of 401 KAR 31.010, and

(c) Meets the definition of tank or tank system in this administrative regulation.

(318) "Water" or "waters of the Commonwealth" shall have the meaning specified in KRS 224.01-010.

(319) "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

(320) "Well" means any shaft or pit dug or bored into the earth, generally of cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(321) "Wetlands" means land that has a predominance of hydro soils and is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

(322) "Zone of aeration" means that region of the soil or rock between the land surface and the nearest saturated zone in which the interstices are occupied partially by air.

(323) "Zone of engineering control" means an area under the control of the owner or operator that upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to waters of the Commonwealth.

(324) "Zone of saturation" means that part of the earth's crust containing groundwater in which all voids, large and small, are filled with liquid.

Section 2. Acronyms and Abbreviations. Unless otherwise specifically indicated by context, acronyms and abbreviations used in 401 KAR Chapter 31 shall have the meaning as identified in Table 1 of this administrative regulation.

Acronym	Amended
Am	Amended
C	Corrosive waste
CAA	Clean Air Act, as amended
C.F.R.	Code of Federal Regulations
cm	Centimeter
cm ²	Centimeter squared
CO	Carbon monoxide
CO ₂	Carbon dioxide
CWA	Clean Water Act, as amended
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DOT	United States Department of Transportation
DRE	Destruction and removal efficiency
E	Explosive waste
eff.	Effective
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIA	Federal Insurance Administration
FR	Federal Register
H	Acutely hazardous waste
ha	Hectare
HTMR	High temperature metals recovery
HSWA	Hazardous and Solid Waste Amendments of 1994
I	Ignitable waste
KAR	Kentucky Administrative Regulation
kg	Kilogram
KPDES	Kentucky Pollution Discharge Elimination System
KRS	Kentucky Revised Statute
Ky.R.	Administrative Register of Kentucky
l	Liter
LC	Lethal concentration
LD	Lethal dose
ml	Milliliter
mm	Millimeter
N	Normal
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant and Discharge Elimination System
PCB	Polychlorinated biphenyl
pCi/l	Picocuries per liter
PHC	Principal hazardous constituent
Permit	Permitted principal organic hazardous constituent

POHG	ent
PM	Particulate matter
POHG	Principal organic hazardous constituent
ppm	parts per million
Trial POHG	Trial burn principal organic hazardous constituent
POTW	Publicly owned treatment works
PSD	Prevention of significant deterioration
psi	Pounds per square inch
psig	Pounds per square inch gauge
R	Reactive waste
RCRA	Resource Conservation and Recovery Act, as amended
SDWA	Safe Drinking Water Act, as amended
SEC	Securities and Exchange Commission
SIC	Standard Industrial Classification Code
SPCC	Spill Prevention, Control, and Countermeasures Plan
T	Toxic waste
UIC	Underground Injection Control
UICP	Underground Injection Control Program
U.S.C.	United States Code
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USPS	United States Postal Service

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 37:010. General provisions for land disposal restrictions.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.70, 224.99, 40 C.F.R. 268 Subpart A [Subparts A, B, Appendices IV-IX]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520, 40 C.F.R. 268 Subpart A

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment. This administrative regulation establishes requirements for land disposal of hazardous waste [This administrative regulation implements] [To implement] [provisions of KRS 224.46-505, 224.46-520, relative to land disposal restrictions. This administrative regulation relates to 40 C.F.R. 268 Subpart A]. [Applicability dates set forth in this administrative regulation are consistent with those adopted by USEPA. This administrative regulation reflects those federal dates to assure consistency with the federal program. Enforcement of applicable provisions preceding the effective date of this administrative regulation was the responsibility of USEPA. The cabinet assumed enforcement responsibility from USEPA upon the effective date of this administrative regulation. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 268 Subparts A and B and 40 C.F.R. 268 Appendices IV, VI, VII, VIII, and X except for: Section 2(6)(d) of this administrative regulation, which includes spent lamps as a universal waste; Section 7(1) of this administrative regulation, which does not include federal language on tolling agreements that violates the statutory manifesting requirements of KRS 224 Subchapter 46; and Section 7(4)(a) of this administrative regulation, which adds language to specify what the notification shall include.]

Section 1. Definitions. (1) "Administrator" means:
(a) As referenced in 40 C.F.R. 268.5 and 268.6, "administrator" as defined by 40 C.F.R. 260.10; or
(b) "Administrator" as defined by 401 KAR 37:005 [is defined by:
(a) 40 C.F.R. 260.10 in the federal references of 40 C.F.R. 268.5 and 268.6; or
(b) In all other instances referenced in this administrative regulation Cabinet as defined in KRS 224.01-010(9)].
(2) "Environmental Protection Agency" or "EPA" means, as referenced in 40 C.F.R. 268.5 and 268.6, [-(a) the federal Environmental Protection Agency [in the federal references of 40 C.F.R. 268.5 and 268.6; or
(b) In all other instances referenced in this administrative regulation, the Kentucky Department for Environmental Protection except when used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications"].
(3) "Federal Register" means, as referenced in 40 C.F.R. 268.5 and 268.6, [-(a) the official daily publication for rules, proposed rules, and notices of federal agencies and organizations, as well as executive orders and other presidential documents [in the federal references of 40 C.F.R. 268.5 and 268.6, or
(b) In all other instances referenced in this administrative regulation the "Kentucky Administrative Register" as described in KRS 13A.050].

Section 2. Purpose, Scope, and Applicability. The subject matter shall be governed by 40 C.F.R. 268.1, effective July 1, 2005.

Section 3. Dilution Prohibited as a Substitute for Treatment. (1) The subject matter shall be governed by 40 C.F.R. 268.3, effective July 1, 2005.

(2) The citation to Section 3004 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

Section 4. Treatment Surface Impoundment Exemptions. (1) The subject matter shall be governed by 40 C.F.R. 268.4, effective July 1, 2005.

(2) The citation to Section 3004(d) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

Section 5. Procedures for Case-by-case Extensions to an Effective Date. The subject matter shall be governed by 40 C.F.R. 268.5, effective July 1, 2005.

Section 6. Petitions to Allow Land Disposal of a Waste Prohibited Under 40 C.F.R. Part 268, Subpart C [of part 268]. The subject matter shall be governed by 40 C.F.R. 268.6, effective July 1, 2005.

Section 7. Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities. The subject matter shall be governed by 40 C.F.R. 268.7, effective July 1, 2005.

Section 8. Special Rules Regarding Wastes that Exhibit a Characteristic. The subject matter shall be governed by 40 C.F.R. 268.9, effective July 1, 2005.

[Section 1. Definitions Applicable to 401 KAR Chapter 37. The definitions previously found in this section have been relocated to the definition administrative regulation for this chapter, which is 401 KAR 37:005.]

Section 2. Purpose, Scope and Applicability. (1) This chapter identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(2) Except as specifically provided otherwise in 401 KAR Chapter 31 or 37, the requirements of 401 KAR Chapter 37 apply to persons who generate or transport hazardous waste and owners

and operators of hazardous waste treatment, storage, and disposal facilities.

~~(3) Prohibited wastes may continue to be land disposed as follows:~~

~~(a) Where persons have been granted an extension to the effective date of a prohibition under 401 KAR 37:030 or pursuant to Section 5 of this administrative regulation, with respect to those wastes covered by the extension;~~

~~(b) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of this administrative regulation, with respect to those wastes and units covered by the petition;~~

~~(c) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this chapter, are not prohibited from land disposal if the wastes:~~

~~1. Are disposed into a nonhazardous or hazardous injection well as defined in 40 C.F.R. 144.6(a);~~

~~2. Do not exhibit any prohibited characteristic of hazardous waste at the point of injection; and~~

~~3. If at the point of generation the injected wastes include D001 High TOC subcategory wastes or D012 through D017 pesticide wastes that are prohibited under 40 C.F.R. 148.17(c), those wastes have been treated to meet the treatment standards of Section 1 of 401 KAR 37.040 before injection.~~

~~(4) The requirements of this chapter shall not affect the availability of a waiver under Section 121(d)(4) of CERCLA.~~

~~(5) The following hazardous wastes are not subject to any provision of 401 KAR Chapter 37:~~

~~(a) Waste generated by a conditionally exempt small quantity generator of less than 100 kilograms of nonacute hazardous waste or less than one (1) kilogram of acute hazardous waste per month as specified in Section 5 of 401 KAR 31:010;~~

~~(b) Waste pesticides that a farmer disposes of pursuant to Section 10 of 401 KAR 32:050;~~

~~(c) Wastes identified or listed as hazardous after November 8, 1984 for which EPA has not promulgated land disposal prohibitions or treatment standards.~~

~~(d) De minimis losses to wastewater treatment systems of commercial chemical product or chemical intermediates that are ignitable (D001), or corrosive (D002), or are organic constituents that exhibit the characteristic of toxicity (D012-D043), and that contain underlying hazardous constituents, are not considered to be prohibited wastes. De minimis losses from normal material handling operations (for example, spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers, leaks from well-maintained pump package and coils; sample purging; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or~~

~~(e) Land disposal prohibitions for hazardous characteristic wastes do not apply to laboratory wastes displaying characteristic of ignitability (D001) or corrosivity (D002), or organic toxicity (D012-D043), that are mixed with other plant wastewaters at facilities whose ultimate discharge is subject to regulation under the CWA (including wastewaters at facilities which have eliminated the discharge of wastewater), provided that the annualized flow of laboratory wastewater into the facility's headwork does not exceed one (1) percent, or provided that the laboratory wastes' combined annualized average concentration does not exceed one (1) part per million in the facility's headwork.~~

~~(6) Universal waste handlers and universal waste transporters are exempt from Section 7 of this administrative regulation and 401 KAR 37.060 for the hazardous wastes listed below. Those handlers are subject to regulation under 401 KAR Chapter 43:~~

~~(a) Batteries as described in Section 2 of 401 KAR 43.010;~~

~~(b) Pesticides as described in Section 3 of 401 KAR 43.010;~~

~~(c) Thermocats as described in Section 4 of 401 KAR 43.010;~~

~~and~~

~~(d) Spent lamps as described in Section 5 of 401 KAR 43.010.~~

~~Section 3. Dilution Prohibited as a Substitute for Treatment. (1) Except as provided in subsection (2) of this section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with 401 KAR 37.040, to circumvent the effective date of a prohibition in 401 KAR 37.030, to otherwise avoid a prohibition in 401 KAR 37.030, or to circumvent a land disposal prohibition imposed by KRS 224.46-520.~~

~~(2) Dilution of wastes that are hazardous only because they exhibit a characteristic in a treatment system which treats wastes subsequently discharged to a water of the United States pursuant to a permit issued under Section 402 of the CWA or which treats wastes for purposes of pretreatment requirements under Section 307 of the CWA is not impermissible dilution for purposes of this section unless a method has been specified as the treatment standard in Section 4 of 401 KAR 37.040, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.~~

~~Section 4. Treatment Surface Impoundment Exemption. (1) Wastes which are otherwise prohibited from land disposal under 401 KAR Chapter 37 may be treated in a surface impoundment or series of impoundments provided that:~~

~~(a) Treatment of such wastes occurs in the impoundments;~~

~~(b) The following conditions are met:~~

~~1. Sampling and testing. For wastes with treatment standards in 401 KAR 37.040 or prohibition levels in 401 KAR 37.030 or KRS 224.46-520, the residues from treatment are analyzed, as specified in Section 7 of this administrative regulation or Section 4 of 401 KAR 37.030, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method specified in the waste analysis plan under Section 4 of 401 KAR 34.020 or Section 4 of 401 KAR 35.020 shall be designed so that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.~~

~~2. Removal. The following treatment residues (including any liquid waste) shall be removed at least annually: residues which do not meet the treatment standards of 401 KAR 37.040, residues which do not meet the prohibition levels established under 401 KAR 37.030 or imposed by statute (where no treatment standards have been established); residues which are from the treatment of wastes prohibited from land disposal under 401 KAR 37.030 (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under Section 2 of 401 KAR 31:050. However, residues which are the subject of a valid certification under Section 8 of this administrative regulation made no later than a year after placement of the wastes in an impoundment are not required to be removed annually. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.~~

~~3. Subsequent management. Treatment residues shall not be placed in any other surface impoundment for subsequent management unless the residues are the subject of a valid certification under Section 8 of this administrative regulation which allows disposal in surface impoundments meeting the requirements of Section 8(1) of this administrative regulation.~~

~~4. Recordkeeping. The procedures and schedule for the sampling of impoundment contents, the analysis of test data, and the annual removal of residues which do not meet the treatment standards, or prohibition levels (where no treatment standards have been established), or which are from the treatment of wastes prohibited from land disposal under 401 KAR 37.030 (where no treatment standards have been established and no prohibition levels apply), shall be specified in the facility's waste analysis plan as required under 401 KAR 34.020, Section 4, or 401 KAR 35.020, Section 4.~~

~~(c) The impoundment meets the design requirements of Section 2(3) of 401 KAR 34.200 or Section 10(1) of 401 KAR 35.200, regardless that the unit may not be new, expanded, or a replace-~~

ment, and it is in compliance with applicable groundwater monitoring requirements of 401 KAR 34.060 or 401 KAR Chapter 35 unless:

1. It is exempted pursuant to Section 2(4) or (5) of 401 KAR 34.200, or to Section 10(3) or (4) of 401 KAR 35.200; or

2. Upon application by the owner or operator, the cabinet after notice and an opportunity to comment has granted a waiver of the requirements on the basis that the surface impoundment:

a. Has at least one (1) liner, and there is no evidence that such liner is leaking;

b. Is located more than one-quarter (1/4) mile from an underground source of drinking water; and

c. Is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or

3. Upon application by the owner or operator, the cabinet, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(d) The owner or operator submits to the cabinet a written certification that the requirements of paragraph (c) of this subsection have been met and submits a copy of the waste analysis plan required under paragraph (b) of this subsection. The following certification is required:

I certify under penalty of law that the requirements of Section 4(1)(c) of 401 KAR 37.040 have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(2) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this section.

Section 5. Procedures for Case by case Extensions to an Effective Date. (1) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the cabinet for an extension to the effective date of any applicable restriction established under 401 KAR 37.030. The applicant shall demonstrate the following:

(a) He has made a good faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under 401 KAR 37.030;

(b) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (recycling for example), or disposal capacity that meets the treatment standards specified in 401 KAR 37.040 or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment;

(c) Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;

(d) The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application;

(e) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(f) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(g) Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of subsection (8)(b) of this section.

(2) An authorized representative signing an application described under subsection (1) of this section shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document

and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(3) After receiving an application for an extension, the cabinet may request any additional information which it deems necessary to evaluate the application.

(4) An extension shall apply only to the waste generated at the individual facility covered by the application and shall not apply to restricted waste from any other facility.

(5) On the basis of the information referred to in subsection (1) of this section, after notice and opportunity for comment, and after consultation with appropriate state agencies in all affected states, the cabinet may grant an extension of up to one (1) year from the effective date. The cabinet may renew this extension for up to one (1) additional year upon the request of the applicant if the demonstration required in subsection (1) of this section can still be made. In no event shall an extension continue beyond twenty-four (24) months from the applicable effective date specified in 401 KAR 37.030. The length of any extension authorized shall be determined by the cabinet based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in subsection (1)(e) of this section. The cabinet shall give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Kentucky Administrative Register.

(6) Any person granted an extension under this section shall immediately notify the cabinet as soon as he has knowledge of any change in the conditions certified to in the application.

(7) Any person granted an extension under this section shall submit written progress reports at intervals designated by the cabinet. Such reports shall describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; shall identify any event which may cause or has caused a delay in the development of the capacity; and shall summarize the steps taken to mitigate the delay. The cabinet may revoke the extension at any time if the applicant does not demonstrate a good faith effort to meet the schedule for completion, if the cabinet denies or revokes any required permit, if conditions certified in the application change, or for any violation of this chapter.

(8) Whenever the cabinet establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(a) The storage restrictions under Section 2(1) of 401 KAR 37.050 do not apply; and

(b) The hazardous waste may be disposed of in a landfill or surface impoundment unit only if the unit is in compliance with the following requirements:

1. The landfill, if in interim status, is in compliance with the requirements of 401 KAR 35.060 and Section 10(1), (3) and (4) of 401 KAR 35.230;

2. The landfill, if permitted, is in compliance with the requirements of 401 KAR 34.060 and Section 10(3), (4), and (5) of 401 KAR 34.230;

3. The surface impoundment, if in interim status, is in compliance with the requirements of 401 KAR 35.060 and Section 10(1), (3) and (4) of 401 KAR 35.200;

4. The surface impoundment, if permitted, is in compliance with the requirements of 401 KAR 34.060 and Section 10(3), (4), and (5) of 401 KAR 34.200;

5. The surface impoundment, if newly subject to hazardous waste regulation due to the promulgation of additional listings or characteristics for the identification of hazardous waste, is in compliance with the requirements of 401 KAR 35.060 within twelve (12) months of the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of Section 10(1), (3), and (4) of 401 KAR 35.200 within forty-eight (48) months after the promulgation of additional listings or characteristics of hazardous waste. If a national capacity variance is granted, during the period the variance is in effect the surface impoundment, if newly subject to hazardous waste regulation due to the promulgation of additional listings or characteristics of hazardous waste, is in com-

pliance with the requirement of 401 KAR 35-060 within twelve (12) months of the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of Section 10(1), (3), and (4) of 401 KAR 35-200 within forty-eight (48) months after the promulgation of additional listings or characteristics of hazardous waste; or

6. The landfill, if disposing of containerized liquid hazardous wastes containing PCB's at concentrations greater than or equal to fifty (50) ppm but less than 500 ppm, is also in compliance with 40 C.F.R. 761.75 and 401 KAR Chapters 34 and 35.

(9) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under 401 KAR Chapter 37 once the effective date for the waste has been reached.

Section 6. Petitions to Allow Land Disposal of a Waste Prohibited Under 401 KAR 37-030 (1) Any person seeking an exemption from a prohibition under 401 KAR 37-030 for the disposal of a restricted hazardous waste in a particular unit or units shall submit a petition to the cabinet demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration shall include the following components:

(a) An identification of the specific waste and the specific unit for which the demonstration will be made;

(b) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;

(c) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality;

(d) A monitoring plan that detects migration at the earliest practicable time; and

(e) Sufficient information to assure the cabinet that the owner or operator of a land disposal unit receiving restricted waste will comply with other applicable federal, state, and local laws.

(2) The demonstration referred to in subsection (1) of this section shall meet the following criteria:

(a) All waste and environmental sampling, test, and analysis data shall be accurate and reproducible to the extent that state-of-the-art techniques allow;

(b) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters shall have been approved by the cabinet;

(c) Simulation models shall be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;

(d) A quality assurance and quality control plan that addresses all aspects of the demonstration shall be approved by the cabinet; and

(e) An analysis shall be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis shall include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(3) Each petition referred to in subsection (1) of this section shall include the following:

(a) A monitoring plan that describes the monitoring program installed at or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan shall provide information on the monitoring of the unit or the environment around the unit. The following specific information shall be included in the plan:

1. The media monitored in the case where monitoring of the environment around the unit is required;

2. The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;

3. The location of the monitoring stations;

4. The monitoring interval (frequency of monitoring at each station);

5. The specific hazardous constituents to be monitored;

6. The implementation schedule for the monitoring program;

7. The equipment used at the monitoring stations;

8. The sampling and analytical techniques employed; and

9. The data recording and reporting procedures.

(b) Where applicable, the monitoring program described in paragraph (a) of this subsection shall be in place for a period of time specified by the cabinet, as part of the approval of the petition, prior to receipt of prohibited waste at the unit.

(c) The monitoring data collected according to the monitoring plan specified under paragraph (a) of this subsection shall be sent to the cabinet according to a format and schedule specified and approved in the monitoring plan.

(d) A copy of the monitoring data collected under the monitoring plan specified under paragraph (a) of this subsection shall be kept on site at the facility in the operating record.

(e) The monitoring program specified under paragraph (a) of this subsection shall meet the following criteria:

1. All sampling, testing, and analytical data shall be approved by the cabinet and shall provide data that is accurate and reproducible.

2. All estimation and monitoring techniques shall be approved by the cabinet.

3. A quality assurance and quality control plan addressing all aspects of the monitoring program shall be provided to and approved by the cabinet.

(4) Each petition shall be submitted to the cabinet.

(5) After a petition has been approved, the owner or operator shall report any changes in conditions at the unit or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(a) If the owner or operator plans to make changes to the unit design, construction, or operation, the change shall be proposed, in writing, and the owner or operator shall submit a demonstration to the cabinet at least thirty (30) days prior to making the change. The cabinet shall determine whether the proposed change invalidates the terms of the petition and shall determine the appropriate response. Any change shall be approved by the cabinet prior to being made.

(b) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, the change shall be reported, in writing, to the cabinet within ten (10) days of discovering the change. The cabinet shall determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(5) If the owner or operator determines that there is migration of hazardous constituents from the unit, the owner or operator shall:

(a) Immediately suspend receipt of restricted waste at the unit;

(b) Notify the cabinet, in writing, within ten (10) days of the determination that the release has occurred; and

(c) Following receipt of the notification the cabinet shall determine, within sixty (60) days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The cabinet shall also determine whether further examination of any migration is warranted under applicable provisions of 401 KAR Chapters 34 and 35.

(7) Each petition shall include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(8) After receiving a petition, the cabinet may request any additional information that reasonably may be required to evaluate the demonstration.

(9) If approved, the petition shall apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and shall not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.

(10) The cabinet shall give public notice in the Kentucky Administrative Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Kentucky Administrative Register.

(11) The term of a petition granted under this section shall be no longer than the term of the hazardous waste site or facility permit if the disposal unit is operating under a hazardous waste site or facility permit, or up to a maximum of ten (10) years from the date of approval provided under subsection (7) of this section if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a hazardous waste site or facility permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(12) Prior to the cabinet's decision, the applicant is required to comply with all restrictions on land disposal under 401 KAR Chapter 37 once the effective date for the waste has been reached.

(13) The petition granted by the cabinet does not relieve the petitioner of his responsibilities in the management of hazardous waste under the hazardous waste management administrative regulations.

(14) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under this section.

Section 7. Waste Analysis. (1) Except as specified in Section 3 of 401 KAR 37.030, if a generator's waste is listed in 401 KAR 31.040, the generator shall test his waste or test an extract using the Toxicity Characteristic Leaching Procedure, Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, adopted in Section 3 of 401 KAR 30.010, or use knowledge of the waste to determine if the waste is restricted from land disposal under 401 KAR Chapter 37. Except as specified in Section 3 of 401 KAR 37.030, if a generator's waste exhibits one (1) or more of the characteristics set out in 401 KAR 31.030, the generator shall test an extract using the Toxicity Characteristic Leaching Procedure, Method 1311, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this chapter. If the generator determines that this waste exhibits the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST or RORGS of Table 1 of Section 3 of 401 KAR 37.040), or the characteristic of corrosivity (D002), and is prohibited under Section 8 of 401 KAR 37.030, or the characteristic of organic toxicity (D012-D043) and is prohibited under Section 9 of 401 KAR 37.030, the generator shall determine the underlying hazardous constituents in the D001, D002, or D012-D043 waste.

(a) If a generator determines that he is managing a restricted waste under 401 KAR Chapter 37 and the waste does not meet the applicable treatment standards set forth in 401 KAR 37.040 or exceeds the applicable prohibition levels set forth in Section 3 of 401 KAR 37.030 or KRS 224.46-520, with each shipment of waste the generator shall notify the treatment or storage facility in writing. The notice shall include the following information:

1. EPA hazardous waste number;
2. The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F030, D001, D002, and D012-D043 and in Section 3 of 401 KAR 37.030 or KRS 224.46-520. Generators shall also include whether the waste is a nonwastewater or wastewater and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;
3. The manifest number associated with the shipment of waste;
4. For hazardous debris, the contaminants subject to treatment as provided by Section 5(b) of 401 KAR 37.040 and the following statement: "This hazardous debris is subject to the alternative treatment standards of Section 5 of 401 KAR 37.040";
5. The waste analysis data, where available; and
6. The date the waste is subject to the prohibitions.

(b) If a generator determines that he is managing a restricted waste under 401 KAR Chapter 37, and determines that the waste can be land disposed without further treatment, with each shipment of waste he shall submit, to the treatment, storage, or land disposal

facility, a notice and a certification stating that the waste meets applicable treatment standards set forth in 401 KAR 37.040 and the applicable prohibition levels set forth in Section 3 of 401 KAR 37.030 or KRS 224.46-520. Generators of hazardous debris that is excluded from the definition of hazardous waste under Section 3(6)(b) of 401 KAR 31.030 (that is, debris that the cabinet has determined does not contain hazardous waste) however, are not subject to these notification and certification requirements.

1. The notice shall include the following information:
 - a. EPA hazardous waste number;
 - b. The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F030, D001, D002, and D012-D043 and Section 3 of 401 KAR 37.030 or KRS 224.46-520. Generators shall also include whether the waste is a nonwastewater or wastewater and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;
 - c. The manifest number associated with the shipment of waste; and
 - d. Waste analysis data, where available.
2. The certification shall be signed by an authorized representative and shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support the certification that the waste complies with treatment standards specified in 401 KAR 37.040 and all applicable prohibitions set forth in Section 4 of 401 KAR 37.030 or KRS 224.46-520. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(c) If a generator's waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case by case extension under Section 5 of this administrative regulation, an exemption under Section 6 of this administrative regulation, or nationwide capacity variance under 401 KAR 37.030), with each shipment of waste he shall submit a notice to the facility receiving his waste stating that the waste is not prohibited from land disposal. The notice shall include the following information:

1. EPA hazardous waste number;
2. The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F030, D001, D002, and D012-D043. Generators shall also include whether the waste is a nonwastewater or wastewater and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;
3. The manifest number associated with the shipment of waste;
4. Waste analysis data, where available;
5. For hazardous debris when using the alternative treatment technologies provided by Section 5 of 401 KAR 37.040:
 - a. The contaminants subject to treatment, as described in Section 6(2) of 401 KAR 37.040; and
 - b. An indication that these contaminants are being treated to comply with Section 5 of 401 KAR 37.040.
6. For hazardous debris when using the treatment standards for the contaminating wastes in Section 1 of 401 KAR 37.040 the requirements described in paragraph (c)1, 2, 3, 4, and 7 of this subsection.
7. The date the waste is subject to the prohibitions.

(d) If a generator is managing a prohibited waste in tanks, containers, or containment buildings regulated under Section 5 of 401 KAR 32.030, and is treating such waste in the tanks, containers, or containment buildings to meet applicable treatment standards under 401 KAR 37.040, the generator shall develop and follow a written waste analysis plan that describes the procedures the generator shall carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table 1 of Section 6 of 401 KAR 37.040, however, are not subject to these waste analysis requirements.) The plan shall be kept on site in the generator's records, and the following requirements shall be met:

1. The waste analysis plan shall be based on a detailed chemical and physical analysis of a representative sample of the prohib-

ited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this chapter, including the selected testing frequency.

2. The plan shall be filed with the cabinet a minimum of thirty (30) days prior to the treatment activity, with delivery verified.

3. Wastes shipped off site pursuant to this paragraph shall comply with the notification requirements of paragraph (b) of this subsection.

(e) If the generator determines whether the waste is restricted based solely on his knowledge of the waste, all supporting data used to make this determination shall be retained on site in the generator's files. If a generator determines whether the waste is restricted based on testing this waste or an extract developed using the test method described in Section 1 of 401 KAR 37.100 all waste analysis data shall be retained on site in the generator's files.

(f) If a generator determines that he is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt from 401 KAR 37.030, under Sections 2 to 6 of 401 KAR 31.010 subsequent to the point of generation, he shall place a one (1) time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from 401 KAR 37.030, and the disposition of the waste, in the facility's file.

(g) Generators shall retain on site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this section for at least five (5) years from the date that the waste that is the subject of the documentation was last sent to on site or off site treatment, storage, or disposal. The five (5) year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the cabinet. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under Sections 2 to 6 of 401 KAR 31.010, or exempted from 401 KAR 37.030, subsequent to the point of generation.

(h) If a generator is managing a lab pack that contains none of the wastes specified in Appendix IV of 40 C.F.R. Part 268, adopted in Section 10(2)(a) of this administrative regulation, and wishes to use the alternative treatment standard under Section 3(2) of 401 KAR 37.040, with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with paragraph (a) of this subsection, except that underlying hazardous constituents need not be determined. The generator shall also comply with the requirements in paragraphs (e) and (f) of this subsection, and shall submit the following certification, which shall be signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any wastes adopted in Section 10(2)(a) of this administrative regulation. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(2) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by Section 4 of 401 KAR 30.020 or Section 4 of 401 KAR 35.020. The testing shall be performed as provided in paragraphs (a), (b), and (c) of this subsection.

(a) For wastes with treatment standards expressed as concentrations in the waste extract (Section 3 of 401 KAR 37.040), the owner or operator of the treatment facility shall test the treatment residues or an extract of such residues developed using the test method described in 401 KAR 37.100 to assure that the treatment residues or extract meet the applicable treatment standards.

(b) For wastes prohibited under Section 3 of 401 KAR 37.030 or KRS 224.46-520 which are not subject to any treatment standards under 401 KAR 37.040, the owner or operator of the treatment facility shall test the treatment residues according to the generator testing requirements specified in Section 3 of 401 KAR 37.030 to assure that the treatment residues comply with the applicable prohibitions.

(c) For wastes with treatment standards expressed as concentrations in the waste (Section 5 of 401 KAR 37.040) the owner or

operator of the treatment facility shall test the treatment residues (not an extract of the residues) to assure that the treatment residues meet the applicable treatment standards.

(d) A notice shall be sent with each waste shipment to the land disposal facility which includes the following information except that debris excluded from the definition of hazardous waste under Section 3(5) of 401 KAR 31.010 (that is, debris treated by an extraction or destruction technology provided by Table 1 of Section 6 of 401 KAR 37.040, or debris that the cabinet has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection (4) of this section rather than these notification requirements:

1. EPA hazardous waste number;

2. The waste constituents to be monitored, if the monitoring will not include all regulated constituents, for wastes F001-F005, F030, D001, D002, and D012-D043 and in Section 3 of 401 KAR 37.030 or KRS 224.46-520. Generators shall also include whether the waste is a nonwastewater or wastewater, and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable.

3. The manifest number associated with the shipment of waste; and

4. Waste analysis data, where available.

(e) The treatment facility shall submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the applicable performance standards specified in 401 KAR 37.040 and applicable prohibitions set forth in Section 3 of 401 KAR 37.030 or KRS 224.46-520. Debris excluded from the definition of hazardous waste under Section 3(5) of 401 KAR 31.010 (that is, debris treated by an extraction or destruction technology provided by Table 1 of Section 6 of 401 KAR 37.040, or debris that the cabinet has determined does not contain hazardous waste) is subject to the notification and certification requirements of subsection (4) of this administrative regulation rather than the certification requirements of this paragraph.

1. For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (Section 2 of 401 KAR 37.040), or for wastes prohibited under Section 3 of 401 KAR 37.030 or KRS 224.46-520 which are not subject to any treatment standards under 401 KAR 37.040, the certification shall be signed by an authorized representative and shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 401 KAR 37.040 and all applicable prohibitions set forth in 401 KAR 37.030, Section 3, and KRS 224.46-520 without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

2. For wastes with treatment standards expressed as technologies (Section 3 of 401 KAR 37.040), the certification shall be signed by an authorized representative and shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section 3 of 401 KAR 37.040. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

3. For wastes with treatment standards expressed as concentrations in the waste pursuant to Section 5 of 401 KAR 37.040, if compliance with the treatment standards in this administrative regulation is based in part or whole on the analytical detection limit alternative specified in Section 5(2) of 401 KAR 37.040, the certification also shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 401 KAR 34.240 or 401 KAR 35.240, or by com-

bustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

4. For characteristic wastes D001, D002, and D012-D043 that are subject to the treatment standards in Section 1 of 401 KAR 37.040 (other than those expressed as a required method of treatment); that are reasonably expected to contain underlying hazardous constituents; are treated on site to remove the hazardous characteristic; and are then sent off site for treatment of underlying hazardous constituents, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section 1 of 401 KAR 37.040 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(f) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage, or disposal facility sending the waste or treatment residue off site shall comply with the notice and certification requirements applicable to generators under this section.

(g) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of Section 1 of 401 KAR 36.030 regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (the recycler) is not required to notify the receiving facility, pursuant to paragraph (d) of this section. With each shipment of the wastes, the owner or operator of the recycling facility shall submit a certification described in paragraph (e) of this section, and a notice which includes the information listed in paragraph (d) of this section (except the manifest number) to the cabinet. The recycling facility also shall keep records of the name and location of each entity receiving the hazardous waste derived product.

(3) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 401 KAR 36.030, the owner or operator of any land disposal facility disposing of any waste subject to restrictions under 401 KAR Chapter 37 shall:

(a) Have copies of the notice and certifications specified in subsection (1) or (2) of this section, and the certification specified in Section 8 of 401 KAR 37.010 if applicable.

(b) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Section 1 of 401 KAR 37.100 or using any methods required by generators under Section 3 of 401 KAR 37.030, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Section 3 of 401 KAR 38.040 and all applicable prohibitions set forth in Section 3 of 401 KAR 37.030 or in KRS 224.46.520. The testing shall be performed according to the frequency specified in the facility's waste analysis plan as required by Section 4 of 401 KAR 34.020 or Section 4 of 401 KAR 37.020.

(4) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under Section 3(6) of 401 KAR 31.010 (that is, debris treated by an extraction or destruction technology provided by Table 1 of Section 7 of 401 KAR 37.040, and debris that the cabinet has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

(a) A one (1) time notification shall be submitted to the cabinet including the following information:

1. The name and address of the solid waste site or facility receiving the treated debris;

2. A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number(s), and

3. For debris excluded under Section 3(5) of 401 KAR 31.010, the technology from Table 1 of Section 7 of 37.040 used to treat the debris.

(b) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under Section 3(5) of 401 KAR 31.010, if a different type of debris is treated or if a differ-

ent technology is used to treat the debris.

(e) For debris excluded under Section 3(5) of 401 KAR 31.010, the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Table 1 of Section 7 of 37.040 as follows:

1. Records shall be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

2. Records shall be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

3. For each shipment of treated debris, a certification of compliance with the treatment standards shall be signed by an authorized representative and placed in the facility's files. The certification shall state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of Section 6 of 37.040. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

Section 8 - Landfill and Surface Impoundment Disposal Restrictions (1) Prior to May 8, 1990, wastes which are otherwise prohibited from land disposal under Section 5(6) of 401 KAR 37.030 may be disposed in a landfill or surface impoundment which is in compliance with the requirements of Section 5(8)(b) of this administrative regulation provided that the requirements of this section are met. As of May 8, 1990, this subsection, including paragraph (a), is no longer in effect.

(a) Prior to the disposal, the generator has made a good faith effort to locate and contract with treatment and recovery facilities practically available which provide the greatest environmental benefit.

(b) If a generator determines that there is no practically available treatment for his waste, he shall fulfill the following requirements:

1. Prior to the initial shipment of waste, the generator shall submit a demonstration to the cabinet that includes a list of facilities and facility officials contacted, addresses, telephone numbers, and contact dates, as well as written discussion of why he was not able to obtain treatment or recovery for that waste. The generator shall also provide to the cabinet the following certification:

I certify under penalty of law that the requirements of Section 8(1)(a) of 401 KAR 37.010 have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

The generator does not need to wait for the cabinet's approval of the demonstration or certification before shipment of the waste. However, if the cabinet invalidates the demonstration or certification for the reasons outlined in Section 8(2)(b) of this administrative regulation the generator shall immediately cease further shipments of the waste, and immediately inform all facilities that received the waste of such invalidation, and keep records of such communication on site in his files.

2. With the initial shipment of waste, the generator shall submit a copy of the demonstration and the certification discussed above in subparagraph 1 of this paragraph to the receiving facility. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged. Such a generator shall retain on site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five years from the date that the waste that is subject of such documentation was last sent to on site or off site disposal. The five (5) year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the cabinet.

(c) If a generator determines that there are practically available treatments for his waste, he shall contract to use the practically available technology that yields the greatest environmental benefit. He shall also fulfill the following specific requirements:

1. The generator shall submit to the cabinet, prior to the initial

shipment of waste, a demonstration that includes: a list of facilities and facility officials contacted, addresses, telephone numbers, and contact dates, as well as a written discussion explaining why the treatment or recovery technology chosen provides the greatest environmental benefit. The generator shall also provide to the cabinet the following certification:

I certify under penalty of law that the requirements of Section 8(1)(a) of 401 KAR 37.010 have been met and that I have contracted to treat my waste (or otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

The generator does not need to wait for cabinet approval of the demonstration or certification before shipment of the waste.

2. With the initial shipment of waste, the generator shall submit to the receiving facility a copy of the demonstration and the certification discussed above in subparagraph 1 of this paragraph. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged. Such a generator shall retain on site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five (5) years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site disposal. The five (5) year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the cabinet.

(d) Where the generator has determined that there is practically available treatment for his waste prior to disposal, with the initial shipment of waste, the generator shall submit a copy of the demonstration and certification required in paragraph (b)2 of this section to the receiving facility. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged. The generator shall retain on site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five (5) years from the date that the waste that is the subject of the documentation was last sent to on-site or off-site disposal. The five (5) year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the cabinet.

(2) After receiving the demonstration and certification, the cabinet may request any additional information deemed necessary to evaluate the certification, and submit a new demonstration and certification as provided in this section to the receiving facility.

(a) A generator who has submitted a certification under this section shall immediately notify the cabinet when he has knowledge of any change in the conditions which formed the basis of his certification.

(b) If, after review of the certification, the cabinet determines that practically available treatment exists where the generator has certified otherwise, or that there exists some other method of practically available treatment yielding greater environmental benefit than that which the generator has certified, the cabinet may invalidate the certification.

(c) If the cabinet invalidates a certification, the generator shall immediately cease further shipments of the waste, and inform all facilities that received the waste of the invalidation and keep records of the communication on-site in his files.

(3) A treatment, recovery, or storage facility receiving wastes subject to a valid certification shall keep copies of the generator's demonstration (if applicable) and certification in his operating record.

(a) The owner or operator of a treatment or recovery facility shall certify that he has treated the waste in accordance with the generator's demonstration. The following certification is required:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the

treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) The owner or operator of a treatment, recovery, or storage facility shall, for each initial shipment of waste, send a copy of the generator's demonstration (if applicable) and certification under subsection (1)(b)1 or (c)1 of this section and certification under paragraph (a) of this subsection (if applicable) to the facility receiving the waste or treatment residues. With each subsequent waste shipment, only the certification shall be required to be submitted provided that the conditions being certified remain unchanged.

(4) The owner or operator of a disposal facility shall ensure that those wastes prohibited under Section 4(6) of 401 KAR 37.030 are subject to a certification according to the requirements of this section prior to disposal in a landfill or surface impoundment, and that the units receiving the wastes will meet the minimum technological requirements of Section 5(8)(b) of this administrative regulation.

(5) Once the certification is received by the cabinet, and provided that the wastes have been treated by the treatment (if any), determined by the generator to yield the greatest environmental benefit practically available, the wastes or treatment residuals may be disposed in a landfill or surface impoundment unit meeting the requirements of Section 5(8)(b) of this administrative regulation, unless otherwise prohibited by the cabinet.

Section 9. Special Rules Regarding Wastes that Exhibit a Characteristic

(1) The initial generator of a solid waste shall determine each EPA hazardous waste number (waste code) applicable to the waste in order to determine the applicable treatment standards under 401 KAR 37.040. For purposes of this chapter, the waste shall carry the waste code for any applicable listing under 401 KAR 31.040. In addition, the waste shall carry one (1) or more of the waste codes under 401 KAR 31.030, where the waste exhibits a characteristic, except in the case when the treatment standard for the waste listed in 401 KAR 31.040 operates in lieu of the treatment standard for the waste identified under 401 KAR 31.010 as specified in subsection (2) of this section. If the generator determines that his waste displays the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST, or RORGs), or the characteristic of corrosivity (D002), and is prohibited under Section 9 of 401 KAR 37.040; or that his waste displays the characteristic of toxicity (D012-D043), and is prohibited under Section 9 of 401 KAR 37.030, the generator shall determine the underlying hazardous constituents, in the D001, D002, or D012-D043 wastes.

(2) Where a prohibited waste is both listed under 401 KAR 31.040 and exhibits a characteristic under 401 KAR 31.010, the treatment standard for the waste code listed in 401 KAR 31.040 shall operate in lieu of the standard for the waste identified under 401 KAR 31.010, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise the waste shall meet the treatment standards for all applicable listed and characteristic waste codes.

(3) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under 401 KAR 31.010 may be land disposed unless the waste complies with the treatment standards under 401 KAR 37.040.

(4) Wastes that exhibit a characteristic are also subject to Section 7 requirements of this administrative regulation, except that once the waste is no longer hazardous, a one (1) time notification and certification shall be placed in the generator's or treater's file and a copy sent to the cabinet. The notification and certification that is placed in the generator's or treater's file shall be updated if the process or operation generating the waste changes or if the solid waste site or facility receiving the waste changes. However, the generator or treater need only notify the cabinet on an annual basis if such changes occur. Such notification and certification shall be sent to the cabinet by the end of the calendar year in which the change occurs.

(a) The notification shall include the following information:

1. The name and address of the facility receiving the waste shipment;

2. A description of the waste as initially generated, including the applicable EPA hazardous waste number, treatability group, and underlying hazardous constituents in D001 and D002 wastes prohibited under Section 8 of 401 KAR 37.030, or D012-D043 wastes under Section 9 of 401 KAR 37.030.

(b) The certification shall be signed by an authorized representative and shall state the language found in Section 7(2)(e)1 of this administrative regulation. If treatment removes the characteristic but does not treat underlying hazardous constituents, then the certification found in Section 7(2)(e)4 applies.

Section 10. Identification of Wastes to be Evaluated by EPA. (1) 40 C.F.R. 268.10 to 268.12 July 1, 1995, which identify wastes that are to be evaluated to determine land disposal prohibitions and treatment standards are hereby adopted into this administrative regulation without change.

(2) The following appendices to 40 C.F.R. Part 268 (July 1, 1995) are adopted into this administrative regulation without change:

- (a) Appendix IV;
- (b) Appendix VI;
- (c) Appendix VII;
- (d) Appendix VIII; and
- (e) Appendix X.

(3) The appendices specified in subsections (1) and (2) of this section are available for inspection and copying, subject to copyright law, at the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, (502) 564-6716 between 8 a.m. and 4:30 p.m., local time, Monday through Friday.

Section 11. Surface Impoundment Exemptions. (1) This section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(2) Wastes that are newly identified or listed under KRS 224.46-510(3) and 401 KAR 31:030 and 31:040 after November 8, 1994, and stored in a surface impoundment that is newly subject to 401 KAR Chapters 31 through 39 as a result of the additional identification or listing, may continue to be stored in the surface impoundment for forty-eight (48) months after the promulgation of the additional listing or characteristic provided that the surface impoundment is in compliance with the requirements of 401 KAR 35.060 within twelve (12) months after promulgation of the new listing or characteristic.

(3) Wastes that are newly identified or listed under KRS 224.46-510(3) and 401 KAR 31:030 and 31:040 after November 8, 1994, and treated in a surface impoundment that is newly subject to 401 KAR Chapters 31 through 39 as a result of the additional identification or listing, may continue to be treated in that surface impoundment provided that surface impoundment is in compliance with the requirements of 401 KAR 35.060 within twelve (12) months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after forty-eight (48) months from promulgation of the additional listing or characteristic, it shall then be in compliance with Section 4 of this administrative regulation.]

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: December 27, 2006 at 4 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 37:020. Surface Impoundment exemptions [Schedule for land disposal prohibition and establishment of treatment standards].

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.70, 224.99, 40 C.F.R. 268.14
STATUTORY AUTHORITY: KRS 224.10-100, 224 46-505,

224.46-520[, 40 C.F.R. 268.14]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment. This administrative regulation establishes surface impoundment exemptions [This administrative regulation references federal language, which governs the schedule for land disposal prohibitions and the establishment of treatment standards. This administrative regulation conforms to the corresponding federal regulation].

Section 1. Surface Impoundment Exemptions. The subject matter shall be governed by 40 C.F.R. 268.14, effective July 1, 2005.

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: December 27, 2006 at 4 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049, email Bruce.Scott@ky.gov.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 37:030. Prohibitions on land disposal.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.70, 224.99, 40 C.F.R. 268 Subpart C
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[, 40 C.F.R. 268 Subpart C]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment. This administrative regulation establishes [This administrative regulation implements] [To implement] [provisions of KRS 224.46-520 relative to] land disposal [restrictions]. [This administrative regulation is equivalent to the corresponding federal regulations except the text of the federal regulations referenced in this administrative regulation includes dates that occurred before the effective date of the incorporation of those requirements into this administrative regulation. Such dates shall not be construed as creating a retroactive right or obligation under the Kentucky Hazardous Waste Regulations when that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced. If a right or obligation existed under federal regulations based on a date in federal regulations and there is a period from the date cited in the incorporated text until the date they initially took effect in this administrative regulation, nothing in this administrative regulation shall contravene or countermmand the legal application of the federal regulation for that period.] This administrative regulation differs from the corresponding federal regulation in Section 8 of this administrative regulation, which has Kentucky specific information regarding standards to control metal emissions.

Section 1. Waste Specific Prohibitions for[-] Dyes and Pigments Production Wastes. The subject matter shall be governed by 40 C.F.R. 268.20, effective July 1, 2005.

Section 2. Waste Specific Prohibitions for[-] Wood Preserving Wastes. The subject matter shall be governed by 40 C.F.R. 268.30, effective July 1, 2005.

Section 3. Waste Specific Prohibitions for[-] Dioxin Containing Wastes. The subject matter shall be governed by 40 C.F.R. 268.31, effective July 1, 2005.

Section 4. Waste Specific Prohibitions for-1 Soils Exhibiting the Toxicity Characteristics for Metals and containing PCBs. The subject matter shall be governed by 40 C.F.R. 268.32, effective July 1, 2005.

Section 5. Waste Specific Prohibitions for-1 Chlorinated Aliphatic Wastes. The subject matter shall be governed by 40 C.F.R. 268.33, effective July 1, 2005.

Section 6. Waste Specific Prohibitions for-1 Toxicity Characteristic Metal Wastes. The subject matter shall be governed by 40 C.F.R. 268.34, effective July 1, 2005.

Section 7. Waste Specific Prohibitions for-1 Petroleum Refining Wastes. The subject matter shall be governed by 40 C.F.R. 268.35, effective July 1, 2005.

Section 8. Waste Specific Prohibitions for-1 Inorganic Chemical Wastes. The subject matter shall be governed by 40 C.F.R. 268.36, effective July 1, 2005.

Section 9. Waste Specific Prohibitions for-1 Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated. The subject matter shall be governed by 40 C.F.R. 268.37, effective July 1, 2005.

Section 10. Waste Specific Prohibitions for-1 Newly Identified Organic Toxicity Characteristic Wastes and Newly Listed Coke By-Product and Chlorotoluene Production Wastes. The subject matter shall be governed by 40 C.F.R. 268.38, effective July 1, 2005.

Section 11. Waste Specific Prohibitions for-1 Spent Aluminum Potliners; Reactive; and Carbamate Wastes. The subject matter shall be governed by 40 C.F.R. 268.39, effective July 1, 2005.

Section 12. Effective Dates. (1) Dates included in the federal regulations referenced in this administrative regulation that occurred before the effective date of this administrative regulation shall not be construed as creating a retroactive right or obligation under the Kentucky hazardous waste administrative regulations if that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced.

(2) If a right or obligation existed under federal regulations based on a date in federal regulations, and there is a period from the date cited in the text until the date the requirements initially became effective in this administrative regulation, this administrative regulation shall not contravene or countermand the legal application of the federal regulation for that period.

[Section 1. Waste Specific Prohibitions – Solvent Wastes. (1) Effective November 8, 1986, the spent solvent wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Numbers F001, F002, F003, F004, and F005, are prohibited from land disposal (except in an injection well) unless one (1) or more of the following conditions apply:

(a) The generator of the solvent waste is a small quantity generator of 100-1000 kilograms of hazardous waste per month, or

(b) The solvent waste is generated from any response action taken under CERCLA or any corrective action taken under KRS Chapter 224 except where the waste is contaminated soil or debris; or

(c) The initial generator's solvent waste is a solvent-water mixture, solvent-containing sludge or solid, or solvent-contaminated soil (non-CERCLA or KRS Chapter 224 corrective action) containing less than one (1) percent total F001-F006 solvent constituents listed in Table 1 of Section 3 of 401 KAR 37.040; or

(d) The solvent waste is a residue from treating a waste described in paragraphs (a), (b), or (c) of this subsection; or the solvent waste is a residue from treating a waste not described in paragraphs (a), (b), or (c) of this subsection provided such residue belongs to a different treatability group than the waste as initially generated and wastes belonging to such a treatability group are described in paragraph (e) of this subsection.

(2) Effective November 8, 1988, the F001-F005 solvent wastes listed in subsection (1)(a), (b), (c), and (d) of this section are prohibited from land disposal.

(3) Effective November 8, 1990, the F001-F005 solvent wastes which are contaminated soil and debris resulting from a response action taken under Section 104 or 106 of CERCLA or a corrective action required under KRS Chapter 224 and the residues from treating these wastes are prohibited from land disposal. Between November 8, 1988, and November 8, 1990, these wastes may be disposed in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37.010.

(4) The requirements of subsections (1), (2), and (3) of this section do not apply if:

(a) The wastes meet the standards of 401 KAR 37.040; or

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37.010, with respect to these wastes and units covered by the petition; or

(c) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37.010, with respect to these wastes and units covered by the extension.

Section 2. Waste Specific Prohibitions – Dioxin-containing Wastes. (1) Effective November 8, 1988, the dioxin-containing wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the F020-F023 and F026-F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under Section 104 and 106 of CERCLA or a corrective action taken under KRS Chapter 224.

(2) Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes which are contaminated soil and debris as addressed in subsection (1) of this section are prohibited from land disposal.

(3) Between November 8, 1988, and November 8, 1990, wastes which are contaminated soil and debris as addressed in subsection (1) of this section may be disposed in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in 401 KAR 37.010, Section 5(8)(b) and all other applicable requirements of 401 KAR Chapters 34 and 35.

(4) The requirements of subsections (2) and (3) of this section do not apply if:

(a) The wastes meet the standards of 401 KAR 37.040; or

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37.010 with respect to these wastes and units covered by the petition; or

(c) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37.010 with respect to these wastes covered by the extension.

Section 3. Waste Specific Prohibitions – California List Wastes. (1) Effective July 8, 1987, the following hazardous wastes are prohibited from land disposal (except in injection wells):

(a) Liquid hazardous wastes having a pH less than or equal to two (2);

(b) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to fifty (50) ppm;

(c) Liquid hazardous wastes that are primarily water and contain halogenated organic compounds (HOCs) in total concentration greater than or equal to 1,000 mg/l and less than 10,000 mg/l HOCs.

(2) The requirements of subsections (1) and (3) of this section do not apply until:

(a) July 8, 1989, where the wastes are contaminated soil or debris not resulting from a response action taken under section 104 or 106 of CERCLA or a corrective action taken under KRS Chapter 224. Between July 8, 1987, and July 8, 1989, the wastes may be disposed of in a landfill or surface impoundment only if the disposal is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37.010.

(b) November 8, 1990, where the wastes are contaminated soil or debris resulting from a response action taken under Section 104 or 106 of CERCLA or a corrective action taken under KRS Chapter

224. Between November 8, 1988, and November 8, 1990, the wastes may be disposed in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37.040.

(3) Effective November 8, 1988, the following hazardous wastes are prohibited from land disposal (subject to any administrative regulations that may be promulgated with respect to disposal in injection wells):

(a) Liquid hazardous wastes that contain HOCs in total concentration greater than or equal to 1,000 mg/l and are not prohibited under subsection (1)(c) of this section, and

(b) Nonliquid hazardous wastes containing HOCs in total concentration greater than or equal to 1,000 mg/kg and are not wastes described in subsection (2) of this section.

(4) Between July 8, 1987 and November 8, 1988, the wastes included in subsection (3)(a) and (b) of this section may be disposed in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37.040.

(5) The requirements of subsections (1), (2), and (3) of this section do not apply if:

(a) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37.040 with respect to those wastes and units covered by the petition (except for liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm which are not eligible for such exemptions); or

(b) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37.040, with respect to those wastes covered by the extension; or

(c) The wastes meet the applicable standards specified in 401 KAR 37.040 or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibitions set forth in this section or KRS 224.46-520.

(6) The prohibitions and effective dates specified in subsections (1)(c), (2), and (3) of this section do not apply where the waste is subject to 401 KAR 37.030 prohibition and effective date for a specified HOC (such as a hazardous waste chlorinated solvent, for example Section 2(1) of this administrative regulation).

(7) To determine whether or not a waste is a liquid under subsections (1) and (3) of this section and under KRS 224.46-520 the following test shall be used. Method 9005 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30.040.

(8) Except as otherwise provided in this paragraph, the waste analysis and recordkeeping requirements of Section 7 of 401 KAR 37.040 are applicable to wastes prohibited under this chapter or KRS 224.46-520.

(a) The initial generator of a liquid hazardous waste shall test his waste (not an extract or filtrate) in accordance with the procedures specified in Section 3(1)(a) of 401 KAR 31.030, or use knowledge of the waste, to determine if the waste has a pH less than or equal to two (2). If the liquid waste has a pH less than or equal to two (2), it is restricted from land disposal and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified in this section.

(b) The initial generator of either a liquid hazardous waste containing PCBs or a liquid or nonliquid hazardous waste containing halogenated organic compounds (HOCs) shall test his waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in this section. If the concentration of PCBs or HOCs in the waste is greater than or equal to the prohibition levels specified in this section, the waste is restricted from land disposal and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified in this section.

Section 4. Waste Specific Prohibitions - First Third Wastes. (1) Effective August 8, 1988, the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Nos. F006 (nonwastewater), K001, K004 wastes specified in Section 2 of 401 KAR 37.040, K008 wastes specified in Section 2 of 401 KAR 37.040, K016,

K018, K019, K020, K021 wastes specified in Section 2 of 401 KAR 37.040, K022 (nonwastewater), K024, K025 nonwastewaters specified in Section 3 of 401 KAR 37.040, K030, K036 (nonwastewater), K037, K044, K045, nonexplosive K046 (nonwastewater), K047, K060 (nonwastewater), K061 (nonwastewater) containing less than fifteen (15) percent zinc, K062, non-CaSO₄ K069 (nonwastewater), K086 (solvent washes), K087, K090, K100 nonwastewaters specified in Section 2 of 401 KAR 37.040, K101 (wastewater), K101 (nonwastewater, low arsenic subcategory - less than one (1) percent total arsenic), K102 (wastewater), K102 (nonwastewater, low arsenic subcategory - less than one (1) percent total arsenic), K103, and K104 are prohibited from land disposal (except in an injection well). Effective August 8, 1988, and continuing until August 7, 1990, K061 wastes containing fifteen (15) percent zinc or greater are prohibited from land disposal pursuant to the treatment standards specified in Section 2 of 401 KAR 37.040 applicable to K061 wastes that contain less than fifteen (15) percent zinc.

(2) Effective August 8, 1990, the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste No. K071 is prohibited from land disposal.

(3) Effective August 8, 1990, the wastes specified in Section 10(1) of 401 KAR 37.040 having a treatment standard in 401 KAR 37.040 based on incineration and which are contaminated soil and debris are prohibited from land disposal.

(4) Between November 8, 1988, and August 8, 1990, wastes included in subsections (2) and (3) of this section may be disposed of in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37.040.

(5) The requirements of subsections (1), (2), (3), and (4) of this section do not apply if:

(a) The wastes meet the applicable standards specified in 401 KAR 37.040; or

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37.040 with respect to those wastes and units covered by the petition; or

(c) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37.040, with respect to those wastes covered by the extension.

(6) Between August 8, 1988, and May 8, 1990, the wastes specified in Section 10(1) of 401 KAR 37.040 for which treatment standards under 401 KAR 37.040 are not promulgated, including those wastes which are subject to the statutory prohibitions of KRS 224.46-520 or prohibitions under Section 3 of 401 KAR 37.030, but not including wastes subject to a treatment standard under Section 3 of 401 KAR 37.040 or codified prohibitions under Section 3 of this administrative regulation, or wastes subject to a treatment standard under Section 3 of 401 KAR 37.040, are prohibited from disposal in a landfill or surface impoundment unless a demonstration and certification have been submitted pursuant to Section 8 of 401 KAR 37.040.

(7) To determine whether a hazardous waste listed in Section 10(1) of 401 KAR 37.040 exceeds the applicable treatment standards specified in Sections 2 and 3 of 401 KAR 37.040, the initial generator shall test a representative sample of the waste extract or the entire waste depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable sections of 401 KAR 37.040 levels, the waste is prohibited from land disposal and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified.

Section 5. Waste Specific Prohibitions - Second Third Wastes.

(1) Effective June 8, 1989, the wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Nos. F010, F024, the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Nos. K005, K007, K009 (nonwastewaters), K010, K023, K027, K028, K029 (nonwastewaters), K036 (wastewaters), K038, K039, K040, K043, K093, K094, K095 (nonwastewaters), K096 (nonwastewaters), K113, K114, K115, K116, and the wastes specified in 401 KAR 31.040, Section 4 as EPA Hazardous Waste Nos. P013, P021, P029, P030, P039, P040, P041, P043, P044, P062,

P063, P071, P074, P085, P089, P094, P097, P098, P099, P104, P106, P109, P111, P121, U028, U058, U069, U087, U088, U102, U107, U221, U223, and U235 are prohibited from land disposal.

(2) Effective June 8, 1989, the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Nos. K000 (wastewater), K011 (nonwastewater), K013 (nonwastewater), and K014 (nonwastewater) are prohibited from land disposal except when they are underground injected pursuant to 40 C.F.R. 148.14(f) and 148.15(d).

(3) Effective July 8, 1989, the wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Nos. F006 cyanide (nonwastewater), F008, F009, F011 (wastewater) are prohibited from land disposal.

(a) Effective July 8, 1989, the waste specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste No. F007 is prohibited from land disposal except when it is underground injected pursuant to 40 C.F.R. 148.14(f).

(b) Effective July 8, 1989, and continuing until December 8, 1989, F011 (nonwastewater) and F012 (nonwastewater) are prohibited from land disposal pursuant to the treatment standards specified in Sections 2 and 5 of 401 KAR 37.040 applicable to F007, F008, and F009 (nonwastewater). Effective December 8, 1989, F011 (nonwastewater) and F012 (nonwastewater) are prohibited from land disposal pursuant to the treatment standards specified in Sections 2 and 5 of 401 KAR 37.040 applicable to F011 (nonwastewater), and F012 (nonwastewater).

(4) Effective June 8, 1991, the wastes specified in this section having a treatment standard in 401 KAR 37.040 based on incineration, and which are contaminated soil and debris are prohibited from land disposal.

(5) Between June 8, 1989, and June 8, 1991 (for wastes F007, F008, F009, F011, and F012 between June 8, 1989, and July 8, 1989) wastes included in subsections (3) and (4) of this section may be disposed in a landfill or surface impoundment, regardless of whether the unit is a new, replacement, or lateral expansion unit, only if the unit is in compliance with the technical requirements specified in Section 5(8)(b) of 401 KAR 37.040.

(6) The requirements of subsections (1), (2), (3), and (4) of this section do not apply if:

(a) The wastes meet the applicable standards specified in 401 KAR 37.040; or

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37.040, with respect to those wastes and units covered by the petition.

(7) The requirements of subsections (1), (2), and (3) of this section do not apply if persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37.040 with respect to those wastes covered by the extension.

(8) Between June 8, 1989, and May 8, 1990, the wastes specified in Section 10(1) of 401 KAR 37.040 for which treatment standards under 401 KAR 37.040 are not applicable, including California list wastes subject to the sanctuary prohibitions of Section 4 of this administrative regulation, are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to Section 8 of 401 KAR 37.040.

(9) To determine whether a hazardous waste listed in Section 10 of 401 KAR 37.040 exceeds the applicable treatment standards specified in Sections 2 and 5 of 401 KAR 37.040, the initial generator shall test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 401 KAR 37.040 levels, the waste is prohibited from land disposal and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified.

Section 6 Waste Specific Prohibitions—Third Wastes. (1) Effective August 8, 1990, the following wastes are prohibited from land disposal: wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Numbers F002 (1,1,2-trichloroethane), F005 (benzene), F005 (2-ethoxy-ethanol), F005 (2-nitropropane), F006 (wastewater), F019, F025, and F039 (wastewater); the

wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Numbers K002, K003, K004 (wastewater), K005 (wastewater), K006, K008 (wastewater), K011 (wastewater), K013 (wastewater), K014 (wastewater), K015 (nonwastewater), K017, K021 (wastewater), K022 (wastewater), K025 (wastewater), K026, K029 (wastewater), K031 (wastewater), K032, K033, K034, K035, K041, K042, K046 (wastewater), reactive nonwastewater, K048 (wastewater), K049 (wastewater), K050 (wastewater), K051 (wastewater), K052 (wastewater), K060 (wastewater), K061 (wastewater) and (high-zinc subcategory > 15% zinc), K069 (wastewater, calcium sulfate nonwastewater), K073, K083, K084 (wastewater), K085, K095 (wastewater), K096 (wastewater), K097, K098, K100 (wastewater), K101 (wastewater), K102 (wastewater), K105, and K106 (wastewater), the wastes specified in Section 4 of 401 KAR 31.040 as EPA Hazardous Waste Numbers P001, P002, P003, P004, P005, P006, P007, P008, P009, P010 (wastewater), P011 (wastewater), P012 (wastewater), P014, P015, P016, P017, P018, P020, P022, P023, P024, P026, P027, P028, P031, P033, P034, P036 (wastewater), P037, P038 (wastewater), P042, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P064, P065 (wastewater), P066, P067, P068, P069, P070, P072, P073, P075, P076, P077, P078, P081, P082, P084, P088, P092 (wastewater), P093, P095, P096, P101, P102, P103, P105, P108, P110, P112, P113, P114, P115, P116, P118, P119, P120, P122, and P123; and the wastes specified in Section 4(6) of 401 KAR 31.040 as EPA Hazardous Waste Numbers U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U059, U060, U061, U062, U063, U064, U066, U067, U068, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U088, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U103, U105, U106, U108, U109, U110, U111, U112, U113, U114, U116, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136 (wastewater), U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151 (wastewater), U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U195, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U222, U225, U226, U227, U228, U234, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249; and the following wastes identified as hazardous based on a characteristic alone: D001, D002, D003, D004 (wastewater), D005, D006, D007, D008 (except for lead materials stored before secondary melting), D009 (wastewater), D010, D011, D012, D013, D014, D015, D016, and D017.

(2) Effective November 8, 1990, the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Numbers K048 (nonwastewater), K049 (nonwastewater), K050 (nonwastewater), K051 (nonwastewater), and K052 (nonwastewater) are prohibited from land disposal.

(3) Effective May 8, 1992, the following wastes are prohibited from land disposal: wastes specified in Section 2 of 401 KAR 31.040 as EPA Hazardous Waste Numbers F039 (nonwastewater), the wastes specified in Section 3 of 401 KAR 31.040 as EPA Hazardous Waste Numbers K031 (nonwastewater), K084 (nonwastewater), K101 (nonwastewater), K102 (nonwastewater), K106 (nonwastewater); the wastes specified in Section 5(5) of this administrative regulation as EPA Hazardous Waste Numbers P010 (nonwastewater), P011 (nonwastewater), P012 (nonwastewater), P036 (nonwastewater), P038 (nonwastewater), P065 (nonwastewater), P087; and P092 (nonwastewater); the wastes specified in Section 5(6) of this administrative regulation as EPA Hazardous Waste Numbers U136 (nonwastewater); and U151 (nonwastewater); the following wastes identified as hazardous based on a characteristic alone: D004 (nonwastewater); and

D009 (nonwastewaters); and RCRA hazardous wastes that contain naturally occurring radioactive materials.

(4) Effective May 8, 1992, hazardous wastes listed in Section 10 of 401 KAR 37:010 that are mixed radioactive and hazardous wastes are prohibited from land disposal except as provided in subsection (5) of this section.

(5) Subject to applicable prohibitions in Sections 1 through 3 of this administrative regulation, contaminated soil and debris are prohibited from land disposal as follows:

(a) Effective May 8, 1994 debris that is contaminated with wastes listed in 40 C.F.R. 268.12, adopted in Section 10 of 401 KAR 37:010, and debris that is contaminated with any characteristic waste for which treatment standards are established in 401 KAR 37:040, are prohibited from land disposal.

(b) Effective May 8, 1994, mixed radioactive hazardous debris that is contaminated with wastes listed in 40 C.F.R. 268.12, adopted in Section 10 of 401 KAR 37:010, and mixed radioactive hazardous debris that is contaminated with any characteristic waste for which treatment standards are established in 401 KAR 37:040, are prohibited from land disposal.

(c) Paragraphs (a) and (b) of this subsection do not apply where the generator has failed to make a good-faith effort to locate treatment capacity suitable for its waste, has not utilized such capacity as it has found to be available, or has failed to file a report as required by Section 5(7) of 401 KAR 37:010 by August 12, 1993, or within ninety (90) days after the hazardous waste is generated (whichever is later) describing the generator's efforts to locate treatment capacity. Where paragraphs (a) and (b) of this subsection do not apply, all wastes described in these paragraphs are prohibited from land disposal effective May 8, 1993.

(d) Effective May 8, 1993, hazardous soil contaminated with wastes specified in this section having treatment standards in 401 KAR 37:040 based on incineration, mercury retorting or vitrification, and soils contaminated with hazardous wastes listed in Section 10 of 401 KAR 37:010 that are mixed radioactive hazardous wastes, are prohibited from land disposal.

(e) When used in subsection (5)(a) and (b) of this section, debris is defined as follows:

1. Debris as defined in Section 1 of 401 KAR 37:010; or

2. Nonfriable inorganic solids that are incapable of passing through a nine and five-tenths (9.5) mm standard sieve that require cutting, or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:

- a. Metal slags (either dross or scoria);
- b. Glassified slag;
- c. Glass;
- d. Concrete (excluding cementitious or pozzolanic stabilized hazardous wastes);
- e. Masonry and refractory bricks;
- f. Metal cans, containers, drums, or tanks;
- g. Metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment; and
- h. Scrap metal.

(6) Between May 8, 1990 and August 8, 1990, the wastes included in subsection (1) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010.

(7) Between May 8, 1990 and November 8, 1990, wastes included in subsection (2) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010.

(8) Between May 8, 1990, and May 8, 1992, wastes included in subsections (3), (4), and (5) of this section may be disposed of in a landfill or surface impoundment only if the unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010.

(9) The requirements of subsections (1) to (5) of this section do not apply if:

(a) The wastes meet the applicable alternate standards specified in 401 KAR 37:040;

(b) Persons have been granted an exemption from a prohibi-

tion pursuant to a petition under Section 6 of 401 KAR 37:010 with respect to those wastes and units covered by the petition;

(c) The wastes meet the applicable alternate standards established pursuant to a petition granted under Section 4 of 401 KAR 37:040; or

(d) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37:010 with respect to these wastes covered by the extension.

(10) To determine whether a hazardous waste listed in Section 10 of 401 KAR 37:010 exceeds the applicable treatment standards specified in Section 2 of 401 KAR 37:040 and Section 6 of 401 KAR 37:010 the initial generator shall test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentration in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 401 KAR 37:040 levels, the waste is prohibited from land disposal, and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified.

(11) Effective May 8, 1993, D008 lead materials stored before secondary melting are prohibited from land disposal. On or before March 1, 1993, the owner or operator of each secondary lead smelting facility shall submit the following to the cabinet: A binding contractual commitment to construct or otherwise provide capacity for storing such D008 wastes prior to smelting which complies with all applicable storage standards; documentation that the capacity to be provided will be sufficient to manage the entire quantity of such D008 wastes; and a detailed schedule for providing such capacity. Failure by a facility to submit such documentation shall render such D008 wastes managed by that facility prohibited from land disposal effective March 1, 1993. In addition, no later than July 27, 1992 the owner or operator of each facility shall place in the facility record documentation of the manner and location in which such wastes will be managed pending completion of such capacity, demonstrating that such management capacity will be adequate and complies with all applicable requirements in 401 KAR Chapters 30-39.

Section 7. Waste-Specific Prohibitions – Newly Listed Wastes.

(1) Effective November 9, 1992, the wastes specified in Section 3 of 401 KAR 31:040 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; and the wastes specified in Section 4(6) of 401 KAR 31:040 as EPA Hazardous Waste numbers U328, U353, and U359 are prohibited from land disposal.

(2) Effective June 30, 1993, the wastes specified in Section 2 of 401 KAR 31:040 as EPA Hazardous Waste Numbers F037 and F038 that are not generated from surface impoundment cleanouts or closures are prohibited from land disposal.

(3) Effective June 30, 1994, the wastes specified in Section 2 of 401 KAR 31:040 as EPA Hazardous Waste Numbers F037 and F038 that are generated from surface impoundment cleanouts or closures are prohibited from land disposal.

(4) Effective June 30, 1994, radioactive wastes that are mixed with hazardous wastes specified in Section 2 of 401 KAR 31:040 as EPA Hazardous Waste Numbers F037 and F038; the wastes specified in Section 3 of 401 KAR 31:040 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; or the wastes specified in Section 4(6) of 401 KAR 31:040 as EPA Hazardous Waste Numbers U328, U353, and U359 are prohibited from land disposal.

(5) Effective June 30, 1994, debris contaminated with hazardous wastes specified in Section 2 of 401 KAR 31:040 as EPA Hazardous Waste Numbers F037 and F038; the wastes specified in Section 3 of 401 KAR 31:040 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, and K136; or the wastes specified in Section 4(6) of 401 KAR 31:040 as EPA Hazardous Waste Numbers U328, U353, and U359; and which is not contaminated with any other waste already subject to a prohibition are prohibited from land disposal.

(6) Between June 30, 1992 and June 30, 1993, the wastes included in subsection (2) of this section may be disposed of in a

landfill, only if such unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010, and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either Section 5(8)(b) of 401 KAR 37:010 or Section 11 of 401 KAR 37:010.

(7) Between June 30, 1992 and June 30, 1994, the wastes included in subsections (4) and (5) of this section may be disposed of in a landfill only if such unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010, and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either Section 5(8)(b) of 401 KAR 37:010 or Section 11 of 401 KAR 37:010.

(8) The requirements of subsections (1) through (5) of this section do not apply if:

(a) The wastes meet the applicable standards specified in 401 KAR 37:040;

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37:010, with respect to those wastes and units covered by the petition;

(c) The wastes meet the applicable alternate standards established pursuant to a petition granted under Section 4 of 401 KAR 37:040; or

(d) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37:010, with respect to the wastes covered by the extension.

(9) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in Sections 2 and 5 of 401 KAR 37:010, the initial generator shall test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable levels in 401 KAR 37:040, the waste is prohibited from land disposal, and all requirements of 401 KAR Chapter 37 are applicable, except as otherwise specified.

Section 8. Waste Specific Prohibitions—Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated. (1) Effective August 9, 1993, the wastes specified in Section 2 of 401 KAR 31:030 as D001 (and not in the High TOC Ignitable Liquids Subcategory), and specified in Section 3 of 401 KAR 31:030 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA equivalent treatment before ultimate land disposal. CWA equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

(2) Effective February 10, 1994, the wastes specified in Section 2 of 401 KAR 31:030 as D001 (and not in the High TOC Ignitable Liquids Subcategory), and specified in Section 3 of 401 KAR 31:030 as D002, that are managed in systems defined in 40 C.F.R. 144.6(e) and 146(e) as Class V injection wells, that do not engage in CWA equivalent treatment before injection, are prohibited from land disposal.

Section 9. Waste Specific Prohibitions—Newly Identified Organic Toxicity Characteristic Wastes and Newly Listed Coke By-Product and Chlorotoluene Production Wastes. (1) Effective December 19, 1994, the wastes specified in Section 3 of 401 KAR 31:040 as EPA Hazardous Waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste numbers F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012-D043, K141-K145, and K147-K151 are prohibited from land disposal. The following wastes that are specified in Section 5 of 401 KAR 31:030, Table 1 as EPA Hazardous Waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037,

D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that are zero dischargers that do not engage in CWA equivalent treatment before ultimate land disposal, or that are injected in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), are prohibited from land disposal. CWA equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(2) On September 19, 1996, radioactive wastes that are mixed with D018-D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation or sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies. Radioactive wastes mixed with K141-K145, and K147-K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(3) Between December 19, 1994 and September 19, 1996, the wastes included in subsection (2) of this section may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in Section 5(8)(b) of 401 KAR 37:010.

(4) The requirements of subsections (1), (2), and (3) of this section do not apply if:

(a) The wastes meet the applicable treatment standards specified in 401 KAR 37:040;

(b) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 6 of 401 KAR 37:010, with respect to those wastes and units covered by the petition;

(c) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section 4 of 401 KAR 37:040; or

(d) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 5 of 401 KAR 37:010, with respect to these wastes covered by the extension.

(5) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in Section 1 of 401 KAR 37:040, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable 401 KAR 37:040 levels, the waste is prohibited from land disposal, and all requirements of this chapter are applicable, except as otherwise specified.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 37:040. Treatment standards.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.70, 224.99, 40 C.F.R. 268 Subpart D
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505,

224.46-520, 224.46-530[, 40 C.F.R. 268 Subpart D]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment. This administrative regulation establishes hazardous waste treatment standards [This administrative regulation implements] [To implement] [provisions of KRS 224.46-505, 224.46-520, and 224.46-530, relative to hazardous waste standards. This administrative regulation conforms to the corresponding federal regulation]. [This administrative regulation supersedes and replaces 401 KAR 37:100.]

Section 1. Definitions. (1) "Administrator" means:

(a) As referenced in 40 C.F.R. 268.5 and 268.6, "administrator" as defined by 40 C.F.R. 260.10; or

(b) "Administrator" as defined by 401 KAR 37:005 [in 40 C.F.R. 268.42(b) and 268.44(a) through (g) shall have the meaning specified in 40 C.F.R. 260.10].

(2) "Federal Register" means, as referenced in 40 C.F.R. 268.42(b) and 268.44(a) through (g), [means] the official daily publication for rules, proposed rules, and notices of federal agencies and organizations, as well as executive orders and other presidential documents.

(3) "LDR" means land disposal restrictions.

Section 2. Applicability of Treatment Standards. [(1)] The subject matter shall be governed by 40 C.F.R. 268.40, effective July 1, 2005.

Section 3. Treatment Standards Expressed as Concentrations in Waste Extract [Extracted]. The subject matter shall be governed by 40 C.F.R. 268.41, effective July 1, 2005.

Section 4. Treatment Standards Expressed as Specified Technologies. The subject matter shall be governed by 40 C.F.R. 268.42, effective July 1, 2005.

Section 5. Treatment Standards Expressed as Waste Concentrations. The subject matter shall be governed by 40 C.F.R. 268.43, effective July 1, 2005.

Section 6. Variance From a Treatment Standard. The subject matter shall be governed by 40 C.F.R. 268.44, effective July 1, 2005.

Section 7. Treatment Standards for Hazardous Debris. The subject matter shall be governed by 40 C.F.R. 268.45, effective July 1, 2005.

Section 8. Alternative Treatment Standards Based on HTMR. The subject matter shall be governed by 40 C.F.R. 268.46, effective July 1, 2005.

Section 9. Universal Treatment Standards. The subject matter shall be governed by 40 C.F.R. 268.48, effective July 1, 2005.

Section 10. Alternative LDR Treatment Standards for Contaminated Soils. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 268.49, effective July 1, 2005.

(2) The citation to Subtitle C of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46.

~~[Section 1. Applicability of Treatment Standards. (1) A waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one (1) of three (3) types of treatment standard requirements:~~

~~(a) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste ("total waste standards"); or~~

~~(b) The hazardous constituents in the extract of the waste or in~~

~~the extract of the treatment residue must be at or below the values found in the table ("waste extract standards"); or~~

~~(c) The waste must be treated using the technology specified in the table ("technology standard"), which are described in detail in Section 3 of this administrative regulation, Table 1 Technology Codes and Description of Technology-Based Standards.~~

~~(2) For wastewaters, compliance with concentration-level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration-level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, must be used to measure compliance. An exception is made for D004 and D008, for which either of two (2) test methods may be used: Method 1311, or Method 1310, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the cabinet under the procedures set forth in Section 3(2) of this administrative regulation.~~

~~(3) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.~~

~~(4) Notwithstanding the prohibitions specified in subsection (1) of this section, treatment and disposal facilities may demonstrate (and certify pursuant to Section 7(2)(e) of 401 KAR 37:010) compliance with the treatment standards for organic constituents specified by a footnote in the table "Treatment Standards for Hazardous Wastes" in this section, provided the following conditions are satisfied:~~

~~(a) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 401 KAR 34:240, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;~~

~~(b) The treatment or disposal facility has used the methods referenced in paragraph (a) of this subsection to treat the organic constituents; and~~

~~(c) The treatment or disposal facility may demonstrate compliance with organic constituents if good faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.~~

~~(5) For characteristic wastes D001, D002, and D012-D043 that are subject to treatment standards in the following table "Treatment Standards for Hazardous Wastes," all underlying hazardous constituents (included in 40 C.F.R. 260.11, adopted in Section 3 of 30:010) must meet Universal Treatment Standards, found in Section 8 of this administrative regulation, Table UTS, prior to land disposal.~~

~~(6) The treatment standards for F001-F005 nonwastewater constituents carbon disulfide, cyclohexanone, and methanol apply to wastes which contain only one (1), two (2), or three (3) of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 30:010. If the waste contains any of these three (3) constituents along with any of the other twenty-five (25) constituents found in F001-F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and methanol are not required.~~

~~Treatment Standards for Hazardous Wastes~~

~~Note: The treatment standards that appeared in tables in Section 2, 5, and 7, and Tables 2 and 3 of Section 3 of this administrative regulation have been consolidated into the table "Treatment Standards for Hazardous Wastes" in this section~~

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste-Description and Treatment/Regulatory Subcategory ⁴	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common-Name	CAS ² Number	Concentration-mg/l ³ ; or-Technology Code ⁴	Concentration-in mg/kg ³ unless noted as "mg/l TCLP"; or Technology-Code
D001	Ignitable Characteristic Wastes, except for the Section 2(1)(a) of 401 KAR 31:030 High TOC Subcategory, that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.	NA	NA	DEACT and meet Section 8 standards; or RORGS; or GMBST	DEACT and meet Section 8 standards; or RORGS; or GMBST
	Ignitable Characteristic Wastes, except for the Section 2(1)(a) of 401 KAR 31:030 High TOC Subcategory, that are managed in CWA/CWA-equivalent/Class I SDWA systems	NA	NA	DEACT	DEACT
	High TOC Ignitable Characteristic Liquids Subcategory based on Section 2(1)(a) of 401 KAR 31:030 -Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	NA	RORGS; or GMBST
D002	Corrosive Characteristic Wastes that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.	NA	NA	DEACT and meet Section 8 standards	DEACT and meet Section 8 standards
	Corrosive Characteristic Wastes that are managed in CWA, CWA equivalent, or Class I SDWA systems.	NA	NA	DEACT	DEACT
D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of nonwastewaters only.)	Corrosivity (pH)	NA	NA	HLVIT
		Arsenic	7440-38-2	NA	HLVIT
		Barium	7440-39-3	NA	HLVIT
		Cadmium	7440-43-9	NA	HLVIT
		Chromium (Total)	7440-47-3	NA	HLVIT
		Lead	7439-92-1	NA	HLVIT
		Mercury	7439-87-6	NA	HLVIT
		Selenium	7782-49-2	NA	HLVIT
		Silver	7440-22-4	NA	HLVIT
D003	Reactive Sulfides Subcategory based on Section 4(1)(e) of 401 KAR 31:030.	NA	NA	DEACT	DEACT
	Explosive subcategory based on Section 4(1)(f) through (h) of 401 KAR 31:030.	NA	NA	DEACT	DEACT
	Other Reactives Subcategory based on Section 4(1)(a) of 401 KAR 31:030.	NA	NA	DEACT	DEACT
	Water Reactive Subcategory based on Section 4(1)(b) through (d) of 401 KAR 31:030. (Note: This subcategory consists of nonwastewaters only.)	NA	NA	NA	DEACT
	Reactive Cyanides Subcategory based on Section 4(1)(c) of 401 KAR 31:030.	Cyanides (Total) [†]	57-12-5	Reserved	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
D004	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the extraction procedure (EP) in SW846 Method 1310.	Arsenic	7440-38-2	5.0	5.0 mg/l EP
		Arsenic; alternate ⁶ standard for nonwastewaters only.	7440-38-2	NA	5.0 mg/l TCLP
D005	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the extraction procedure (EP) in SW846 Method 1310.	Barium	7440-39-3	100	100 mg/l TCLP
D006	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the extraction procedure (EP) in SW846 Method 1310.	Cadmium	7440-43-9	1.0	1.0 mg/l TCLP
	Cadmium-Containing Batteries Subcategory (Note: This subcategory consists of nonwastewaters only.)	Cadmium	7440-43-9	NA	RTHRM
D007	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the extraction procedure (EP) in SW846 Method 1310.	Chromium (Total)	7440-47-3	5.0	5.0 mg/l TCLP
D008	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the extraction procedure (EP) in SW846 Method 1310.	Lead	7439-92-1	5.0	5.0 mg/l EP
		Lead; alternate ⁶ standard for nonwastewaters only	7439-92-1	NA	5.0 mg/l TCLP
	Lead-Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 401 KAR Chapter 37 or exempted under other Kentucky regulations (401 KAR 36:070). (Note: This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	RLEAD
	Radioactive Lead Solids Subcategory (Note: These lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash.) (Note: This subcategory consists of nonwastewaters only.)	Lead	7439-92-1	NA	MACRO
D009	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury	Mercury	7439-97-6	NA	IMERC; OR RMERC

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
	based on the extraction procedure (EP) in SW846 Method 1310; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury Organic Subcategory)				
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW846 Method 1310; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury Inorganic Subcategory)	Mercury	7439-97-6	NA	RMERC
	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the extraction procedure (EP) in SW846 Method 1310; and contain less than 260 mg/kg total mercury. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	All D009 wastewaters.	Mercury	7439-97-6	0.20	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	AMLGM
	Hydraulic oil contaminated with Mercury-Radioactive Materials Subcategory. (Note: This subcategory consists of nonwastewaters only.)	Mercury	7439-97-6	NA	IMERC
D010	Wastes that exhibit, or are expected to exhibit, the characteristic or toxicity for selenium based on the extraction procedure (EP) in SW846 Method 1310.	Selenium	7782-49-2	1.0	5.7 mg/l TCLP
D011	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the extraction procedure (EP) in SW846 Method 1310.	Silver	7440-22-4	5.0	5.0 mg/l TCLP
D012	Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.	Endrin	72-20-8	BIODG; or INCIN	0.13 and meet Section 8 standards
		Endrin aldehyde	7421-93-4	BIODG; or INCIN	0.13 and meet Section 8 standards
D013	Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.	alpha-BHC	319-84-6	CARBN; or INCIN	0.066 and meet Section 8 standards
		beta-BHC	319-85-7	CARBN; or INCIN	0.066 and meet Section 8 standards
		delta-BHC	319-86-8	CARBN; or INCIN	0.066 and meet Section 8 standards
		gamma-BHC (Lindane)	58-89-9	CARBN; or INCIN	0.066 and meet Section 8 standards
D014	Wastes that are TC for Methoxychlor based on the TCLP in	Methoxychlor	72-43-5	WETOX or INCIN	0.18 and meet Section 8

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
	SW846 Method 1311.				standards
D015	Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.	Toxaphene	8001-35-2	BIODG or INCIN	2.6 and meet Section 8 standards
D016	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW846 Method 1311.	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	CHOXD, BIODG, or INCIN	10 and meet Section 8 standards
D017	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.	2,4,5-TP (Silvex)	93-72-1	CHOXD or INCIN	7.9 and meet Section 8 standards
D018	Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Benzene	71-43-2	0.14 and meet Section 8 standards	10 and meet Section 8 standards
D019	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Carbon tetrachloride	56-23-5	0.057 and meet Section 8 standards	6.0 and meet Section 8 standards
D020	Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet Section 8 standards	0.26 and meet Section 8 standards
D021	Wastes that are TC for Chlorobenzene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Chlorobenzene	108-90-7	0.057 and meet Section 8 standards	6.0 and meet Section 8 standards
D022	Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Chloroform	67-66-3	0.046 and meet Section 8 standards	6.0 and meet Section 8 standards
D023	Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	o-Cresol	95-48-7	0.11 and meet Section 8 standards	5.6 and meet Section 8 standards
D024	Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77 and meet Section 8 standards	5.6 and meet Section 8 standards
D025	Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet Section 8 standards	5.6 and meet Section 8 standards
D026	Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet Section 8 standards	11.2 and meet Section 8 standards
D027	Wastes that are TC for p-	p-Dichlorobenzene (1,4-	106-46-7	0.090	6.0

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
	Dichlorobenzene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Dichlorobenzene)		and meet Section 8 standards	and meet Section 8 standards
D028	Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	1,2-Dichloroethane	107-06-2	0.21 and meet Section 8 standards	6.0 and meet Section 8 standards
D029	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	1,1-Dichloroethylene	75-35-4	0.025 and meet Section 8 standards	6.0 and meet Section 8 standards
D030	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	2,4-Dinitrotoluene	121-14-2	0.32 and meet Section 8 standards	140 and meet Section 8 standards
D031	Wastes that are TC for Heptachlor based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Heptachlor	76-44-8	0.0012 and meet Section 8 standards	0.066 and meet Section 8 standards
		Heptachlor-epoxide	1024-57-3	0.016 and meet Section 8 standards	0.066 and meet Section 8 standards
D032	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Hexachlorobenzene	118-74-1	0.055 and meet Section 8 standards	10 and meet Section 8 standards
D033	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Hexachlorobutadiene	67-68-3	0.055 and meet Section 8 standards	5.6 and meet Section 8 standards
D034	Wastes that are TC for Hexachloroethane based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Hexachloroethane	67-72-1	0.055 and meet Section 8 standards	30 and meet Section 8 standards
D035	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Methyl ethyl ketone	78-93-3	0.28 and meet Section 8 standards	36 and meet Section 8 standards
D036	Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Nitrobenzene	98-95-3	0.068 and meet Section 8 standards	14 and meet Section 8 standards
D037	Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-	Pentachlorophenol	87-86-5	0.089 and meet Section 8 standards	7.4 and meet Section 8 standards

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ^a Number	Concentration mg/l ^b ; or Technology Code ^d	Concentration in mg/kg ^c unless noted as "mg/l TCLP"; or Technology Code
	CWA equivalent/non-Class I SDWA systems only.				
D038	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Pyridine	110-86-1	0.014 and meet Section 8 standards	16 and meet Section 8 standards
D039	Wastes that are TC for Tetrachloroethylene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Tetrachloroethylene	127-18-4	0.056 and meet Section 8 standards	6.0 and meet Section 8 standards
D040	Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Trichloroethylene	79-01-6	0.054 and meet Section 8 standards	6.0 and meet Section 8 standards
D041	Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	2,4,5-Trichlorophenol	95-95-4	0.18 and meet Section 8 standards	7.4 and meet Section 8 standards
D042	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet Section 8 standards	7.4 and meet Section 8 standards
D043	Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311 and that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems only.	Vinyl chloride	75-01-4	0.27 and meet Section 8 standards	6.0 and meet Section 8 standards
F001, F002, F003, F004, & F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes (except as specifically noted in other subcategories). See further details of these listings in Section 3 of 401 KAR 31:040.	Acetone	67-64-1	0.28	160
		n-Butyl alcohol	71-36-3	5.6	2.6
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Chlorobenzene	108-90-7	0.057	6.0
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Ethyl acetate	141-78-6	0.34	33
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		Isobutyl alcohol	78-83-1	5.6	170
		Methanol	67-56-1	5.6	NA
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Nitrobenzene	98-95-3	0.068	14
		Pyridine	110-86-1	0.014	16
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
	F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001-5 solvents: carbon disulfide, cyclohexanone, and methanol.	Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
		Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
		Methanol	67-56-1	5.6	0.75 mg/l TCLP
	F005 solvent waste containing 2-Nitropropane as the only listed F001-5 solvent.	2-Nitropropane	79-46-9	(WETOX or CHOXD) or CARBN; or INCIN	INCIN
	F005 solvent waste containing 2-Ethoxyethanol as the only listed F001-5 solvent.	2-Ethoxyethanol	110-80-5	BIODG; or INCIN	INCIN
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) ⁵	57-12-5	1.2	590

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F007	Spent cyanide plating bath solutions from electroplating operations.	Cadmium	7440-43-9	NA	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	NA
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium	7440-43-9	NA	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Cyanides (Total) ⁷	57-12-5	1-2	500
		Cyanides (Amenable) ⁷	57-12-5	0.96	30
F020, F021, F022, F023, F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (that is, F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (that is, F022). Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023); (2) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (that is, F026).	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TcDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TcDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexa-	NA	0.000063	0.001

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		chlorodibenzofurans)			
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in Sections 2 and 3 of 401 KAR 31:040).	All F024 wastes	NA	INCIN	INCIN
		2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
		3-Chloropropylene	107-05-1	0.036	30
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		bis(2-Ethylhexyl) phtha-	117-81-7	0.28	28

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		late			
		Hexachloroethane	67-72-1	0.055	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
F025	Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025 - Light Ends Subcategory	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
	Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F026 - Spent Filters/Aids and Desiccants Subcategory	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
F037	Petroleum refinery primary oil/water/solids separation sludge. Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological	Acenaphthene	83-32-9	0.059	NA

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
	treatment units as defined in Section 2(2)(b) of 301 KAR 31:040 (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.				
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	.032	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) ⁵	57-12-5	1.2	590
		Lead	7439-02-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge and float generated from the physical and chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in Section 2(2)(b) of 401 KAR 31:040 (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS [®] Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [*]	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under this administrative regulation. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and F028.)	Acenaphthylene	208-96-8	0.059	3.4
		Acenaphthene	83-32-9	0.059	3.4
		Acetone	67-64-1	0.28	160
		Acetonitrile	75-05-8	5.6	NA
		Acetophenone	96-86-2	0.010	9.7
		2-Acetylaminofluorene	53-96-3	0.059	140
		Acrolein	107-02-8	0.29	NA
		Acrylonitrile	107-13-1	0.24	84
		Aldrin	309-00-2	0.021	0.066
		4-Aminobiphenyl	92-67-1	0.13	NA
		Aniline	62-53-3	0.81	14
		Anthracene	120-12-7	0.059	3.4
		Aramite	140-57-8	0.36	NA
		alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC	58-89-9	0.0017	0.066
		Benzene	71-43-2	0.14	10
		Benzo(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Bromodichloromethane	75-27-4	0.35	15
		Methyl bromide (Bromomethane)	74-83-9	0.11	15
		4-Bromophenyl phenyl ether	101-55-3	0.055	15
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butyl benzyl phthalate	85-68-7	0.017	28
		2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP ⁵ "; or Technology Code
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlordane (alpha and gamma isomers)	57-74-0	0.0033	0.26
		p-Chloroaniline	106-47-8	0.46	16
		Chlorobenzene	108-90-7	0.057	6.0
		Chlorobenzilate	510-15-6	0.10	NA
		2-Chloro-1,3-butadiene	126-99-8	0.057	NA
		Chlorodibromomethane	124-48-1	0.057	15
		Chloroethane	75-00-3	0.27	6.0
		bis(2-Chloroethoxy) methane	111-91-1	0.036	7.2
		bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
		Chloroform	67-66-3	0.046	6.0
		bis(2-Chloroisopropyl) ether	108-60-1	0.055	7.2
		p-Chloro-m-cresol	59-50-7	0.018	14
		Chloromethane (Methyl chloride)	74-87-3	0.19	30
		2-Chloronaphthalene	91-58-7	0.055	5.6
		2-Chlorophenol	95-57-8	0.044	5.7
		3-Chloropropylene	107-05-1	0.036	30
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cyclohexanone	108-94-1	0.36	NA
		1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		Dibromomethane	74-95-3	0.11	15
		2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
		o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-20-3	0.0039	0.087
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Dibenz(a,e)pyrene	192-65-4	0.061	NA
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Dichlorodifluoromethane	75-71-8	0.23	7.2
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	87-65-0	0.044	14
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		Dieldrin	60-57-1	0.017	0.13

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ⁴	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration-mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Diethyl phthalate	84-66-2	0.20	28
		2,4-Dimethyl phenol	105-67-9	0.036	14
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		1,4-Dinitrobenzene	100-25-4	0.32	2.3
		4,6-Dinitro-o-cresol	534-52-1	0.28	160
		2,4-Dinitrophenol	51-28-5	0.12	160
		2,4-Dinitrotoluene	121-14-2	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Di-n-propylnitrosamine	621-64-7	0.40	14
		1,4-Dioxane	123-91-1	NA	170
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
		1,2-Diphenylhydrazine	122-66-7	0.087	NA
		Disulfoton	298-04-4	0.017	6.2
		Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1-31-07-8	0.029	0.13
		Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
		Ethyl acetate	141-78-6	0.34	33
		Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Ethyl methacrylate	97-63-2	0.14	160
		Ethylene oxide	75-21-8	0.12	NA
		Famphur	52-85-7	0.017	15
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	0.059	3.4
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	0.035	30
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Iodomethane	74-88-4	0.19	65
		Isobutyl alcohol	78-83-1	5.6	170
		Isodrin	465-73-6	0.021	0.066
		Isosafrole	120-58-1	0.081	2.6
		Kepone	143-50-8	0.0011	0.13
		Methacrylonitrile	126-98-7	0.24	84
		Methanol	67-56-1	5.6	NA
		Methapyrilene	91-80-5	0.081	1.5
		Methoxychlor	72-43-5	0.25	0.18
		3-Methylcholanthrene	56-49-5	0.0055	15
		4,4 Methylene bis(2-chloroaniline)	101-14-4	0.50	30

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP" ³ ; or Technology Code
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methyl methacrylate	80-62-6	0.14	160
		Methyl methanesulfonate	66-27-3	0.018	NA
		Methyl parathion	298-00-0	0.014	4.6
		Naphthalene	91-20-3	0.059	5.6
		2-Naphthylamine	91-59-8	0.52	NA
		p-Nitroaniline	100-01-6	0.028	28
		Nitrobenzene	98-95-3	0.068	14
		5-Nitro-o-toluidine	99-55-8	0.32	28
		p-Nitrophenol	100-02-7	0.12	29
		N-Nitrosodimethylamine	55-18-5	0.40	28
		N-Nitrosodimethylamine	62-75-9	0.40	NA
		N-Nitroso-di-n-butylamine	924-16-3	0.40	17
		N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
		N-Nitrosomorpholine	59-89-2	0.40	2.3
		N-Nitrosopiperidine	100-75-4	0.013	35
		N-Nitrosopyrrolidine	930-55-2	0.013	35
		Parathion	56-38-2	0.014	4.6
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachloronitrobenzene	82-68-8	0.055	4.8
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenacetin	62-44-2	0.081	16
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Phorate	298-02-2	0.021	4.6
		Phthalic anhydride	85-44-9	0.055	NA
		Pronamide	23950-58-5	0.093	1.5
		Pyrene	129-00-0	0.067	8.2
		Pyridine	110-86-1	0.014	16
		Safrole	94-59-7	0.081	22
		Silvex (2,4,5-TP)	93-72-1	0.72	7.9
		2,4,5-T	93-76-5	0.72	7.9
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Toluene	108-88-3	0.080	10
		Toxaphene	8001-35-2	0.0095	2.6
		Bromoform (Tri-bromomethane)	75-25-2	0.63	15

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		1,2,3-Trichloropropane	96-18-4	0.85	30
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA
		Vinyl chloride	75-01-4	0.27	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Antimony	7440-36-0	1.9	2.1 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Barium	7440-39-3	1.2	7.6 mg/l TCLP
		Beryllium	7440-41-7	0.82	NA
		Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [‡]	57-12-5	1.2	590
		Cyanides (Amenable) [‡]	57-12-5	0.86	NA
		Fluoride	16964-48-8	35	NA
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Selenium	7782-49-2	0.82	0.16 mg/l TCLP
		Silver	7440-22-4	0.43	0.30 mg/l TCLP
		Sulfide	8496-25-8	14	NA
		Thallium	7440-28-0	1.4	NA
		Vanadium	7440-62-2	4.3	NA
K001	Bottom sediment sludge from the treatment of wastewaters from wood-preserving processes that use creosote and pentachlorophenol.	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Cyanides (Total) [‡]	57-12-5	1.2	590

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K008	Oven residue from the production of chrome oxide green pigments.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Chloroform	67-66-3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	18
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	1.8
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	1.8
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene	120-12-7	0.059	3.4
		Benzo(a)fluoranthene	205-99-2	0.11	6.8
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	207-08-9	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Hexachloroethane	67-72-1	0.055	30

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	Tetrachloroethylene	127-18-4	0.056	6.0
		bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		1,2,3-Trichloropropane	96-18-4	0.85	30
K018	Heavy ends from the fractionation column in ethyl chloride production.	Chloroethane	75-00-3	0.27	6.0
		Chloromethane	74-87-3	0.19	NA
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	bis(2-Chloroethyl) ether	111-44-1
Chlorobenzene	108-90-7			0.057	6.0
Chloroform	67-66-3			0.046	6.0
p-Dichlorobenzene	106-46-7			0.090	NA
1,2-Dichloroethane	107-06-2			0.21	6.0
Fluorene	86-73-7			0.059	NA
Hexachloroethane	67-72-1			0.055	30
Naphthalene	91-20-3			0.059	5.6
Phenanthrene	85-01-8			0.059	5.6
1,2,4,5-Tetrachlorobenzene	95-94-3			0.055	NA
Tetrachloroethylene	127-18-4			0.056	6.0
1,2,4-Trichlorobenzene	120-82-1			0.055	19
1,1,1-Trichloroethane	71-55-6			0.054	6.0
1,2-Dichloroethane	107-06-2			0.21	6.0
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.			1,1,2,2-Tetrachloroethane	79-34-6
		Tetrachloroethylene	127-18-4	0.056	6.0
		Carbon tetrachloride	56-23-5	0.057	6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Chloroform	67-66-3	0.046	6.0
		Antimony	7440-36-0	1.9	2.1 mg/l TCLP
		Toluene	108-88-3	0.080	10
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	Acetophenone	96-86-2	0.010	9.7
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Phenol	108-95-2	0.039	6.2
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Nickel	7440-02-0	0.98	5.0 mg/l TCLP
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	85-44-9	0.055	28

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		acid)			
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	85-44-9	0.055	28
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT fb SSTRP fb CARBN; or INCIN	INCIN
K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	INCIN	INCIN
K027	Centrifuge and distillation residues from the toluene diisocyanate production.	NA	NA	CARBN; or INCIN	GMBST
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1 trichloroethane.	1,1-Dichloroethane	76-34-3	0.059	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Cadmium	7440-43-9	0.69	NA
		Chromium(Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene	95-50-1	0.088	NA
		p-Dichlorobenzene	106-46-7	0.090	NA
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	NA	30
		Pentachlorobenzene	608-93-5	NA	10
		Pentachloroethane	76-01-7	NA	6.0
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K031	By-product salts generated in the production of MSMA and cacodylic acid.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common-Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Heptachlor epoxide	1024-57-3	0.016	0.066
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K035	Wastewater treatment sludges generated in the production of creosote.	Acenaphthene	83-32-9	NA	3.4
		Anthracene	120-12-7	NA	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Dibenz(a,h)anthracene	53-70-3	NA	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	NA	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
K037	Wastewater treatment sludges from the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
		Toluene	108-88-3	0.080	10
K038	Wastewater from the washing and stripping of phorate production.	Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	NA	NA	CARBN; or INCIN	GMBST
K040	Wastewater treatment sludge from the production of phorate.	Phorate	298-02-2	0.021	4.6
K041	Wastewater treatment sludge from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	187-65-0	0.044	14
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
		Tetrachloroethylene	127-18-4	0.056	6.0
		HxCDDs (All Hexachlorodibenzo-p-	NA	0.000063	0.001

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP" ³ ; or Technology Code
		dioxins)			
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.37 mg/l TCLP
K047	Pink/red water from TNT operations.	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-33	0.080	10
		Xylenes mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) ⁵	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
K049	Slop oil emulsion solids from the petroleum refining industry.	Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	2218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes mixed isomers (sum of o-, m-, and p-	1330-20-7	0.32	30

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		xylene concentrations)			
		Cyanides (Total) [†]	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
K050	Heat-exchanger bundle cleaning sludge from the petroleum refining industry.	Benzo(a)pyrene	50-32-8	0.061	3.4
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) [†]	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
K051	API separator sludge from the petroleum refining industry.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	2218-01-9	0.059	3.4
		Di-n-butyl-phthalate	105-67-9	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	106-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) [†]	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
K052	Tank bottoms (loaded) from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Toluene	106-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) [†]	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	5.0 mg/l TCLP
K060	Ammonia still lime sludge from coking operations.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Naphthalene	91-20-3	0.059	5.6

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁵	57-12-5	1.2	590
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony	7440-36-0	NA	2.1 mg/l TCLP
		Arsenic	7440-38-2	NA	5.0 mg/l TCLP
		Barium	7440-39-3	NA	7.6 mg/l TCLP
		Beryllium	7440-41-7	NA	0.014 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Mercury	7439-97-6	NA	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		Selenium	7782-49-2	NA	0.16 mg/l TCLP
		Silver	7440-22-4	NA	0.30 mg/l TCLP
		Thallium	NA	NA	0.078 mg/l TCLP
		Zinc	7440-66-6	NA	5.3 mg/l TCLP
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
		Nickel	7440-02-0	3.98	NA
K069	Emission control dust/sludge from secondary lead smelting.— Calcium sulfate (Low-Lead) Subcategory	Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
	Emission control dust/sludge from secondary lead smelting.— Non-Calcium sulfate (High Lead) Subcategory	NA	NA	NA	RLEAD
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All K071 wastewaters.	Mercury	7439-97-6	0.15	NA
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K083	Distillation bottoms from aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		Cyclohexanone	108-94-1	0.36	NA
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Nitrobenzene	98-95-3	0.068	14

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP" ³ ; or Technology Code
		Phenol	108-95-2	0.039	6.2
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone	67-64-1	0.28	160
		Acetophenone	96-86-2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butylbenzyl phthalate	85-68-7	0.017	28
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Diethyl phthalate	84-66-2	0.20	28
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Ethyl acetate	141-78-6	0.34	33
		Ethylbenzene	100-41-4	0.057	10
		Methanol	67-56-1	5.6	NA
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methylene chloride	75-09-2	0.089	30
		Naphthalene	91-20-3	0.059	5.6
		Nitrobenzene	98-95-3	0.068	14
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Xylenes mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Cyanides (Total) ²	57-12-5	1.2	500
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K087	Decanter tank tar sludge from coking operations.	Acenaphthylene	208-96-8	0.059	3.4
		Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
		Fluoranthene	206-44-0	0.068	3.4
		Indenol(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Phenanthrene	85-01-8	0.059	5-6
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	85-44-9	0.055	28
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	85-44-9	0.055	28
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	m-Dichlorobenzene	541-73-1	0.036	6.0
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	10
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K098	Untreated process wastewater from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K099	Untreated wastewater from the production of 2,4-D.	2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Penta-	NA	0.000035	0.001

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		chlorodibenzofurans)			
		TCDDs (All Tetra-chlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetra-chlorodibenzofurans)	NA	0.000063	0.001
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline	88-74-4	0.27	14
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitrophenol	88-75-5	0.028	13
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K103	Process residues from aniline extraction from the production of aniline.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) [†]	57-12-5	1.2	590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		2-Chlorophenol	95-57-8	0.044	5.7
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Phenol	108-95-2	0.039	6.2
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
K106	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) non-wastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) non-	Mercury	7439-97-6	NA	0.20 mg/l TCLP

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
	wastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.				
	Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All K106 wastewaters.	Mercury	7439-97-6	0.15	NA
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	INCIN; or CHOXD fb CARBN; or BIODG fb CARBN	INCIN
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	INCIN; or CHOXD fb CARBN; or BIODG fb CARBN	INCIN
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	INCIN; or CHOXD fb CARBN; or BIODG fb CARBN	INCIN
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	INCIN; or CHOXD fb CARBN; or BIODG fb CARBN	INCIN
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	2,4-Dinitrotoluene	121-1-1	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	INCIN; or CHOXD fb CARBN; or BIODG fb CARBN	INCIN
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or INCIN	CMBST
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or INCIN	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel	7440-02-0	3.98	5.0 mg/l TCLP
		NA	NA	CARBN; or INCIN	CMBST
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	NA	NA	CARBN; or INCIN	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	INCIN; or CHOXD-fb (BIODG or CARBN)	INCIN
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	INCIN; or CHOXD-fb (BIODG or CARBN)	INCIN
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	INCIN; or CHOXD-fb (BIODG or CARBN)	INCIN
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	NA	NA	INCIN; or CHOXD-fb (BIODG or CARBN)	INCIN
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-2-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Idene(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Naphthalene	91-20-3	0.059	5.6
K147	Tar storage tank residues from coal tar refining.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Toluene	108-88-3	0.080	10
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	p-Dichlorobenzene	106-46-7
Hexachlorobenzene	118-74-1			0.055	10
Pentachlorobenzene	608-93-5			0.055	10
1,2,4,5-Tetrachlorobenzene	95-94-3			0.055	14
1,1,2,2-Tetrachloroethane	79-34-5			0.057	6.0
Tetrachloroethylene	127-18-4			0.056	6.0
1,2,4-Trichlorobenzene	120-82-1			0.055	19
Benzene	71-43-2			0.14	10
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
P002	1-Acetyl-2-thiourea	1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P003	Acrolein	Acrolein	107-02-8	0.29	CMBST
P004	Aldrin	Aldrin	309-00-2	0.021	0.066
P005	Allyl alcohol	Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
P006	Aluminum phosphide	Aluminum phosphide	20859-73-8	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
P007	5-Aminomethyl-3-isoxazolol	5-Aminomethyl-3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P008	4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P009	Ammonium picrate	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011	Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012	Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013	Barium cyanide	Barium	7440-39-3	NA	7.6 mg/l TCLP
		Cyanides (Total) ⁵	57-12-5	1.2	590
		Cyanides (Amenable) ⁵	57-12-5	0.86	30
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P015	Beryllium dust	Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl) ether)	Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P018	Brucine	Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total) ⁵	57-12-5	1.2	590
		Cyanides (Amenable) ⁵	57-12-5	0.86	30
P022	Carbon disulfide	Carbon disulfide	75-15-0	3.8	INCIN
		Carbon disulfide; alternate ⁶ standard for non-wastewaters only	75-15-0	NA	4.8 mg/l TCLP
P023	Chloroacetaldehyde	Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P024	p-Chloroaniline	p-Chloroaniline	106-47-8	0.046	16
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P029	Copper cyanide	Cyanides (Total) [‡]	57-12-5	1.2	590
		Cyanides (Amenable) [‡]	57-12-5	0.86	30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total) [‡]	57-12-5	1.2	590
		Cyanides (Amenable) [‡]	57-12-5	0.86	30
P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P037	Dieldrin	Dieldrin	60-57-1	0.017	0.13
P038	Diethylarsine	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P039	Disulfoton	Disulfoton	298-04-4	0.017	6.2
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or INCIN	CMBST
P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or INCIN	CMBST
P042	Epinephrine	Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or INCIN	CMBST
P044	Dimethoate	Dimethoate	60-51-5	CARBN; or INCIN	CMBST
P045	Thiofanox	Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P046	alpha, alpha-Dimethylphenethylamine	alpha, alpha-Dimethylphenethylamine	122-99-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28	160
	4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P050	Endosulfan	Endosulfan-I	939-98-8	0.023	0.066
		Endosulfan-II	33213-6-5	0.029	0.13
		Endosulfan-sulfate	1031-07-8	0.029	0.13
P051	Endrin	Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
P054	Aziridine	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P056	Fluorine	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P059	Heptachlor	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
P060	Isodrin	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757-58-4	CARBN; or INCIN	CMBST
P063	Hydrogen cyanide	Cyanides (Total) [‡]	57-12-5	1.2	590

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P065	P065 (mercury fulminate) non-wastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC
	P065 (mercury fulminate) non-wastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7339-97-6	NA	RMERC
	P065 (mercury fulminate) non-wastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	P065 (mercury fulminate) non-wastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All P065 (mercury fulminate) wastewaters.	Mercury	7439-97-6	0.15	NA
P066	Methomyl	Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P068	Methyl hydrazine	Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
P069	2-Methylacetonitrile	2-Methylacetonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P070	Aldicarb	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P071	Methyl parathion	Methyl parathion	298-00-0	0.014	4.6
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P073	Nickel carbonyl	Nickel	7440-02-0	3.98	5.0 mg/l TCLP
P074	Nickel cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP
P075	Nicotine and salts	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P076	Nitric oxide	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG or INCIN	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P085	Octamethylpyrophosphoramide	Octamethylpyrophosphoramide	152-16-9	CARBN; or INCIN	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or	CMBST

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
				CHOXD) fb CARBN; or INCIN	
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	P092 (phenyl mercuric acetate) nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC; or RMERC
	P092 (phenyl mercuric acetate) nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	P092 (phenyl mercuric acetate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	P092 (phenyl mercuric acetate) nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All P092 (phenyl mercuric acetate) wastewaters.	Mercury	7439-97-6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P096	Phosphine	Phosphine	7803-51-2	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
P097	Famphur	Famphur	52-85-7	0.017	15
P098	Potassium cyanide.	Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
P099	Potassium silver cyanide	Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.30 mg/l TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	0.16 mg/l TCLP
P104	Silver cyanide	Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.30 mg/l TCLP
P105	Sodium azide	Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (Total) [†]	57-12-5	1.2	590
		Cyanides (Amenable) [†]	57-12-5	0.86	30
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P109	Tetraethylthiopyrophosphate	Tetraethylthiopyrophosphate	3689-24-5	CARBN; or INCIN	CMBST
P110	Tetraethyl lead	lead	7439-92-1	0.69	0.37 mg/l TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or INCIN	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in	7440-28-0	1.4	RTHRM; or STABL

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		wastewaters only)			
P114	Thallium selenite	Selenium	7782-49-2	0.82	0.16 mg/l TCLP
P115	Thallium (I)-sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P122	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10%	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
U001	Acetaldehyde	Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U002	Acetone	Acetone	67-64-1	0.28	160
U003	Acetonitrile	Acetonitrile	75-05-8	5.6	INCIN
		Acetonitrile; alternate ⁸ standard for nonwastewaters only	75-05-8	NA	1.8
U004	Acetophenone	Acetophenone	98-86-2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53-96-3	0.059	140
U006	Acetyl chloride	Acetyl chloride	75-36-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U007	Acrylamide	Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U008	Acrylic acid	Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U009	Acrylonitrile	Acrylonitrile	107-13-1	0.24	84
U010	Mitomycin C	Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U011	Amitrole	Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U012	Aniline	Aniline	62-53-3	0.81	14
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U015	Azaserine	Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U016	Benz(e)acridine	Benz(e)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U017	Benzal chloride	Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U018	Benz(a)anthracene	Benz(a)anthracene	56-55-3	0.059	3.4
U019	Benzene	Benzene	71-43-2	0.14	10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U021	Benzidine	Benzidine	92-87-5	(WETOX or	INCIN

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory [†]	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
				CHOXD) fb CARBN; or INCIN	
U022	Benzo(a)pyrene	Benzo(a)pyrene	50-32-8	0.064	3.4
U023	Benzotrifluoride	Benzotrifluoride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl) ether	111-44-4	0.033	6.0
U026	Chlornaphazine	Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	108-60-1	(WETOX or CHOXD) fb CARBN; or INCIN	7.2
U028	bis(2-Ethylhexyl)phthalate	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74-83-9	0.11	15
U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol	n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate	Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U036	Chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108-90-7	0.057	6.0
U038	Chlorobenzilate	Chlorobenzilate	510-15-6	0.10	INCIN
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110-75-8	0.062	INCIN
U043	Vinyl chloride	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform	Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74-87-3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U047	2-Chloronaphthalene	2-Chloronaphthalene	91-58-7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95-57-8	0.044	5.7
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U050	Chrysene	Chrysene	218-01-9	0.059	3.4
U051	Creosote	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.37 mg/l TCLP
U052	Cresols (Cresylic acid)	o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to	108-39-4	0.77	5.6

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste-Description-and-Treatment/Regulatory-Subcategory ⁴	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common-Name	CAS ² -Number	Concentration-mg/l ³ ; or-Technology-Code ⁴	Concentration-in-mg/kg ³ -unless-noted-as-"mg/l-TCLP"; or-Technology-Code
		distinguish from p-cresol)			
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U055	Cumene	Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U056	Cyclohexane	Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U057	Cyclohexanone	Cyclohexanone	108-94-1	0.36	CMBST
		Cyclohexanone; alternate ⁶ standard for non-wastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058	Cyclophosphamide	Cyclophosphamide	50-18-0	CARBN; or INCIN	CMBST
U059	Daunomycin	Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U060	DDD	o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
U061	DDT	o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
U062	Diallate	Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15
U069	Di-n-butyl-phthalate	Di-n-butyl phthalate	84-74-2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	0.088	6.0
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0
U073	3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U074	1,4-Dichloro-2-butene	cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
		trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	0.059	6.0
U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	0.21	6.0
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	0.025	6.0
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	0.054	30

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste-Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common-Name	CAS ² Number	Concentration-mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-83-2	0.044	14
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085	1,2:3,4-Diepoxybutane	1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb-CARBN; or INCIN	CMBST
U086	N,N'-Diethylhydrazine	N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S-methyldithiophosphate	3288-58-2	CARBN; or INCIN	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28
U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb-CARBN; or INCIN	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb-CARBN; or INCIN	CMBST
U091	3,3'-Dimethoxybenzidine	3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb-CARBN; or INCIN	INCIN
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb-CARBN; or INCIN	INCIN
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	0.13	INCIN
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb-CARBN; or INCIN	CMBST
U095	3,3'-Dimethylbenzidine	3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb-CARBN; or INCIN	INCIN
U096	alpha, alpha-Dimethyl-benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb-CARBN; or INCIN	INCIN
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb-CARBN; or INCIN	CMBST
		1,4-Dioxane; alternate ⁶ standard for nonwastewaters only	123-91-1	NA	170
U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED;	CHOXD; CHRED; or

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste-Description and Treatment/Regulatory-Subcategory ⁴	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common-Name	CAS ² -Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l-TCLP"; or Technology-Code
				CARBN; BIODG; or INCIN	CMBST
		1,2-Diphenylhydrazine; alternate ⁶ -standard for wastewaters-only	122-66-7	0.087	NA
U110	Dipropylamine	Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621-64-7	0.40	14
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	33
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U115	Ethylene oxide	Ethylene oxide	75-21-8	(WETOX or CHOXD) fb CARBN; or INCIN	CHOXD; or INCIN
		Ethylene oxide; alternate ⁶ -standard for wastewaters-only	75-21-8	0.12	NA
U116	Ethylene thiourea	Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U117	Ethyl ether	Ethyl ether	60-29-7	0.12	160
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3-4
U121	Trichloromonofluoromethane	Trichloromonofluoromethane	75-69-4	0.020	30
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U123	Formic acid	Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U124	Furan	Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U126	Glycidylaldehyde	Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6
U129	Lindane	alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30
U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR; or NEUTR

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
U135	Hydrogen sulfide	Hydrogen sulfide	7783-06-4	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
U136	Cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
U138	Iodomethane	Iodomethane	74-88-4	0.19	65
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole	Isosafrole	120-58-1	0.081	2.6
U142	Kepon	Kepon	143-50-8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U144	Lead acetate	Lead	7439-92-1	0.69	0.37 mg/l TCLP
U145	Lead phosphate	Lead	7439-92-1	0.69	0.37 mg/l TCLP
U146	Lead subacetate	Lead	7439-92-1	0.69	0.37 mg/l TCLP
U147	Maleic anhydride	Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U149	Malononitrile	Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U150	Melphalan	Melphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U151	U151 (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	U151 (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC only.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All U151 (mercury) wastewater.	Mercury	7439-97-6	0.15	NA
	Element Mercury Contaminated with Radioactive Materials	Mercury	7439-97-6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126-98-7	0.24	84
U153	Methanethiol	Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U154	Methanol	Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
		Methanol; alternate ⁵ set of standards for both wastewaters and non-wastewaters	67-56-1	5.6	0.75 mg/l TCLP
U155	Methapyrilene	Methapyrilene	91-80-5	0.081	1.5
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U157	3-Methylcholanthrene	3-Methylcholanthrene	56-49-5	0.0055	15
U158	4,4'-Methylene bis(2-chloroaniline)	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
U159	Methyl ethyl ketone	Methyl ethyl ketone	78-93-3	0.28	36
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or INCIN	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108-10-1	0.14	33
U162	Methyl methacrylate	Methyl methacrylate	80-62-6	0.14	160
U163	N-Methyl N'-nitro N-	N-Methyl N'-nitro N-	70-25-7	(WETOX or	INCIN

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		nitroseguanidine	nitroseguanidine	CHOXD) fb CARBN; or INCIN	
U164	Methylthiouracil	Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U165	Naphthalene	Naphthalene	91-20-3	0.059	5-6
U166	1,4-Naphthoquinone	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U167	1-Naphthylamine	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U168	2-Naphthylamine	2-Naphthylamine	91-59-8	0.52	INCIN
U169	Nitrobenzene	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U172	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-butylamine	924-16-3	0.40	17
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100-75-4	0.013	35
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930-55-2	0.013	35
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	28
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	0.055	10
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
		Pentachloroethane; alternate ⁶ standards for both wastewaters and nonwastewaters	76-01-7	0.055	6.0
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U187	Phenacetin	Phenacetin	62-44-2	0.081	16
U188	Phenol	Phenol	108-95-2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
U190	Phthalic anhydride	Phthalic anhydride (measured as Phthalic acid or terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride	85-44-9	0.055	28
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U192	Pronamide	Pronamide	23950-58-5	0.093	1.5

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration-mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ -unless noted as "mg/l TCLP"; or Technology Code
U193	1,3-Propane-sultone	1,3-Propane-sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U194	n-Propylamine	n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U196	Pyridine	Pyridine	110-86-1	0.014	16
U197	p-Benzoquinone	p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U200	Reserpine	Reserpine	50-55-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U201	Resorcinol	Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U202	Saccharin and salts	Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U203	Safrole	Safrole	94-59-7	0.081	22
U204	Selenium dioxide	Selenium	7782-49-2	0.82	0.16 mg/l TCLP
U205	Selenium sulfide	Selenium	7782-49-2	0.82	0.16 mg/l TCLP
U206	Streptozotocin	Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U219	Thiourea	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8	CARBN; or INCIN	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5	CARBN; or INCIN	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U235	tris-(2,3-Dibromopropyl)-	tris-(2,3-	126-72-7	0.11	0.10

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TREATMENT STANDARDS FOR HAZARDOUS WASTES					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NONWASTEWATERS
		Common Name	CAS ² Number	Concentration mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ³ unless noted as "mg/l TCLP"; or Technology Code
		phosphate	Dibromopropyl)-phosphate		
U236	Trypan-Blue	Trypan-Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U237	Uracil-mustard	Uracil-mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U243	Hexachloropropylene	Hexachloropropylene	1888-71-7	0.035	30
U244	Thiram	Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U246	Cyanogen-bromide	Cyanogen-bromide	506-68-3	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or INCIN	CMBST
U249	Zinc phosphide, Zn ₃ P ₂ , when present at concentrations of 10% or less	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN
U328	o-Toluidine	o-Toluidine	95-53-4	INCIN; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	INCIN; or Thermal Destruction
U353	p-Toluidine	p-Toluidine	106-49-0	INCIN; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	INCIN; or Thermal Destruction
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	INCIN; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST

- The waste descriptions provided in this table do not replace waste descriptions in 401 KAR Chapter 31. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
- CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts and esters, the CAS number is given for the parent compound only.
- Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
- All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in Section 3 of this administrative regulation, Table 1—Technology Codes and Descriptions of Technology-Based Standards.
- Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 401 KAR 34:240 or 35:240, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in subsection (4) of this section. All concentration standards for nonwastewaters are based on analysis of grab samples.
- Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment/Regulatory Subcategory and physical form (that is, wastewater and nonwastewater) specified for that alternate standard.
- Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, with a sample size of tn (10) grams and a distillation time of one (1) hour and fifteen (15) minutes.

NOTE: NA means not applicable.

Section 2. Treatment Standards Expressed as Concentrations in Waste Extract. For the requirements previously found in this section and for treatment standards in Table CCWE Constituent Concentrations in Waste Extracts, refer to Section 1 of this administrative regulation.

Section 3. Treatment Standards Expressed as Specified Technologies. Note: For the requirements previously found in this section in Table 2 Technology-based Standards by RCRA Waste Code, and Table 3 Technology-based Standards for Specific Radioactive Hazardous Mixed Waste, refer to Section 1 of this administrative regulation.

(1) The following wastes of paragraphs (a) and (b) of this subsection and in the Table in Section 1 of this administrative regulation, "Treatment Standards for Hazardous Wastes", for which standards are expressed as a treatment method rather than a concentration level, shall be treated using the technology or technologies specified in paragraphs (a) and (b) of this subsection and Table 1 of this section.

(a) Liquid hazardous waste containing PCBs at concentrations greater than or equal to fifty (50) ppm but less than 500 ppm shall be incinerated in accordance with the technical requirements of 40 C.F.R. 761.70 or burned in high efficiency boilers in accordance with the technical requirements of 40 C.F.R. 761.60. Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm shall be incinerated in accordance with the technical requirements of 40 C.F.R. 761.70. Thermal treatment under this section shall also be in compliance with applicable administrative regulations in Chapters 34, 35, and 36.

(b) Nonliquid hazardous wastes containing halogenated or

organic compounds (HOCs) in total concentration greater than or equal to 1,000 mg/kg and liquid HOC-containing wastes that are prohibited under Section 3(1)(c) of 401 KAR 37:030, shall be incinerated in accordance with the requirements of 401 KAR 34:240 or 401 KAR 35:240. These treatment standards do not apply where the waste is subject to a 401 KAR 37:030 treatment standard for a specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established under Section 1 of this administrative regulation).

(c) A mixture consisting of wastewater, the discharge of which is subject to regulation under Sections 307(b) or 402 of the CWA, and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process, and that meet the criteria of the D001 ignitable liquids containing greater than ten (10) percent total organic constituents (TOC) subcategory, is subject to the DEACT treatment standard described in Table 1 of 40 C.F.R. 268.42. For purposes of this paragraph, de minimis losses include those from normal material handling operations (spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks from process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges.

(d) The wastewater form of the following hazardous wastes listed in 401 KAR 37:010 shall be treated by carbon adsorption, or incineration, or pretreatment followed by carbon adsorption: K027, K039, K113, K114, K115, K116, P040, P041, P043, P044, P062, P085, P109, P111, U058, U087, U221, and U223.

Table 1. Technology Codes and Description of Technology Based Standards

Technology code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid) venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semisolid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG:	Biodegradation of organics or nonmetallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	Carbon adsorption (granulated or powdered) of nonmetallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (e.g. bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
CHRED:	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.
CMBST	Combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 401 KAR 34:240, 35:240 or 36:020.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.
HLVIT:	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 C.F.R. part 264 subpart 0 and part 265 subpart 0. All wastewater and nonwastewater residues

VOLUME 33, NUMBER 12 – JUNE 1, 2007

	derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories);
INCN:	Incineration in units operated in accordance with the technical operating requirements of 40 C.F.R. part 264 subpart 0 and part 265 subpart 0.
LLEX:	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.
MACRO:	Macroencapsulation with surface coating materials such as polymeric organics (e.g. resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 40 C.F.R. 260.10.
NEUTR:	Neutralization with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.
NLDBR:	No land disposal based on recycling.
PRECP:	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (i.e., containing oxides and/or hydroxides of calcium and/or magnesium); (2) caustic (i.e., sodium and/or potassium hydroxides); (3) soda ash (i.e., sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional flocculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.
RBERY:	Thermal recovery of Beryllium.
RCGAS:	Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.
RCORR:	Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (i.e., thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid. Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
RMETL:	Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) ion exchange; (2) resin or solid (i.e., zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (i.e., crystallization) – Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RORGS:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals); – Note: this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 40 C.F.R. 260.10 (1), (6), (7), (11), and (12) under the definition of "industrial furnaces".
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.
STABL:	Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust) – this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.
SSTRP:	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit such as, the number of separation stages and the internal column design. Thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.
WETOX:	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).
WTRRX:	Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in sec. 268.42, Table 2 by indicat-

ing the five letter technology code that must be applied first, then the designation "fb." (an abbreviation for "followed by"), then the five (5) letter technology code for the technology that must be

applied next, and so on.

Note 2: When more than one (1) technology (or treatment train) are specified as alternative treatment standards, the five (5) letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word "OR". This indicates that any one (1) of these BDAT technologies or treatment trains can be used for compliance with the standard.

(2) Any person may submit an application to the cabinet demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achievable by methods specified in subsections (1), (3), and (4) of this section for wastes or specified in Table 1 of Section 6 of this administrative regulation for hazardous debris. The applicant shall submit information demonstrating that his treatment method is in compliance with federal, state and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the cabinet may approve the use of the alternative treatment method if it finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in subsections (1), (3), and (4) of this section for wastes or in Table 1 of Section 6 of this administrative regulation for hazardous debris. Approval shall not be granted by the cabinet without concurrence from the U.S. EPA. Any approval shall be stated in writing and may contain such provisions and conditions as the cabinet deems appropriate. The person to whom such approval is issued shall comply with all limitations contained in such a determination.

(3) As an alternative to the otherwise applicable treatment standards in this administrative regulation, lab packs are eligible for land disposal provided the following requirements are met:

(a) The lab packs comply with the applicable provisions of Section 11 of 401 KAR 34:230 and Section 9 of 401 KAR 35:230;

(b) The lab pack does not contain any of the wastes listed in Appendix IV to 40 C.F.R. Part 268, adopted in Section 10 of 401 KAR 37:010;

(c) The lab packs are incinerated in accordance with the requirements of 401 KAR 34:240 or 401 KAR 35:240; and

(d) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, D011 are treated in compliance with the applicable treatment standards specified for such wastes in this administrative regulation.

(4) Radioactive hazardous mixed wastes are subject to the treatment standards of Section 1 of this administrative regulation. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in Section 6 of this administrative regulation.

Section 4. Variance From a Treatment Standard. (1) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition the cabinet for a variance from the treatment standard. The petitioner shall demonstrate that because the physical or chemical properties of the waste differ significantly from wastes analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

(2) Each petition shall be submitted in accordance with the procedures in Section 1 of 401 KAR 31:060.

(3) Each petition shall include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(4) After receiving a petition for variance from a treatment standard, the cabinet may request any additional information or samples which may be required to evaluate the petition. The cabinet may request additional copies of the complete petition as needed to send to affected states and the EPA.

(5) The cabinet shall make a tentative decision to grant or deny the petition for a variance. If the tentative decision is to deny, the cabinet shall notify the petitioner. The cabinet shall give public notice stating the intent to deny the petition for variance. The public notice shall allow at least forty-five (45) days for public comment. If the tentative decision is to grant the petition, the cabinet shall propose an amendment to the administrative regulations and provide an opportunity for public comment pursuant to KRS Chapter 13A. The final decision on a variance from a treatment standard shall be promulgated in a Kentucky administrative regulation. The cabinet shall not grant a petition without concurrence from the U.S. EPA.

(6) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards shall comply with the waste analysis requirements for restricted wastes found under Section 7 of 401 KAR 37:010.

(7) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this chapter once the effective date for the waste has been reached.

(8) Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one (1) site cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may apply to the cabinet for a site-specific variance from a treatment standard. The applicant for a site-specific variance must demonstrate that because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

(9) Each application for a site-specific variance from a treatment standard must include the information in Section 1 of 401 KAR 31:060.

(10) After receiving an application for a site-specific variance from a treatment standard, the cabinet may request any additional information or samples which may be required to evaluate the application.

(11) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under Section 7 of 401 KAR 37:010.

(12) During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this part once the effective date for the waste has been reached.

Section 5. Treatment Standards Expressed as Waste Concentrations. For the requirements previously found in this section and for treatment standards in Table CCW—Constituent Concentrations in Wastes, refer to Section 1 of this administrative regulation.

Section 6. Treatment Standards for Hazardous Debris. (1) Treatment standards. Hazardous debris shall be treated prior to land disposal as follows unless cabinet determines under Section 3(5)(b) of 401 KAR 31:010 that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this administrative regulation for the waste contaminating the debris:

(a) General. Hazardous debris shall be treated for each "contaminant subject to treatment" defined by subsection (2) of this section using the technology or technologies identified in Table 1 of this section.

(b) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under Sections 2, 3, and 4 of 401 KAR 31:030, respectively, shall be deactivated by treatment using one (1) of the technologies identified in Table 1 of this section.

(c) Mixtures of debris types. The treatment standards of Table 1 in this section shall be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(d) Mixtures of contaminant types. Debris that is contaminated with two (2) or more contaminants subject to treatment identified under subsection (2) of this section shall be treated for each contaminant using one (1) or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(e) Waste PCBs. Hazardous debris that is also a waste PCB under 40 C.F.R. part 761 is subject to the requirements of either 40 C.F.R. part 761 or the requirements of this section, whichever are more stringent.

(2) Contaminants subject to treatment. Hazardous debris shall be treated for each "contaminant subject to treatment." The contaminants subject to treatment shall be determined as follows:

(a) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by Section 5 of 401 KAR 31:030 are those constituents for which the debris exhibits the TC toxicity characteristic.

(b) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under Section 1 of this administrative regulation.

(c) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide shall be treated for cyanide.

(3) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one (1) of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under

401 KAR 31:030 after treatment is not a hazardous waste and need not be managed in a hazardous waste facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and shall be managed in a hazardous waste facility.

(4) Treatment residuals.

(a) General requirements. Except as provided by subsection (4)(b) and (d) of this section:

1. Residue from the treatment of hazardous debris shall be separated from the treated debris using simple physical or mechanical means; and

2. Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by this administrative regulation for the waste contaminating the debris.

(b) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide reactive) that is not contaminated with a contaminant subject to treatment defined by subsection (2) of this section, shall be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of this administrative regulation.

(c) Cyanide reactive debris. Residue from the treatment of debris that is reactive because of cyanide shall meet the standards for D003 under Section 1 of this administrative regulation.

(d) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than ten (10) percent total organic carbon is subject to the technology-based standards for D001: "Ignitable Liquids based on Section 2(1)(a) of 401 KAR 31:030" under Section 1 of this administrative regulation.

(e) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.

Table 1. Alternative Treatment Standards For Hazardous Debris¹

Technology description	Performance and design and operating standard	Contaminant restrictions ²
A. Extraction Technologies:		
1. Physical Extraction		
a. Abrasive Blasting: Removal of contaminated debris surface layers using water and air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).	Glass, Metal, Plastic, Rubber: Treatment to a clean debris surface. ³ Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface. ³	All Debris: None.
b. Scarification, Grinding, and Planing: Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.	Same as above	Same as above
c. Spalling: Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.	Same as above	Same as above
d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. ⁴	Same as above	Same as above
e. High Pressure Steam and Water Sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers	Same as above	Same as above.
2. Chemical Extraction		
a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris	All Debris: Treatment to a clean debris surface ⁵ ; Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (that is, thickness limit, ⁶ except that this thickness limit may be waived under an "Equivalent	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a

VOLUME 33, NUMBER 12 – JUNE 1, 2007

surface layers.	Technology" approval under Section 3(2) of this administrative regulation; ⁸ debris surfaces must be in contact with water solution for at least 15 minutes	dioxin-listed waste, ⁶ an "Equivalent Technology" approval under Section 3(2) of this administrative regulation must be obtained. ⁸
b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface pores by applying a nonaqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time. ⁴	Same as above	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.
c. Vapor Phase Solvent Extraction: Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor. ⁴	Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.	Same as above.
3. Thermal Extraction a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, and carbon in a smelting, melting, or refining furnace to separate metals from debris.	For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	Debris contaminated with a dioxin-listed waste: ⁶ Obtain an "Equivalent Technology" approval under Section 3(2) of this administrative regulation. ⁸
b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas. ⁷	All Debris: Obtain an "Equivalent Technology" approval under Section 3(2) of this administrative regulation; ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 10 cm (4 inches) in one dimension (that is, thickness limit), ⁶ except that this thickness limit may be waived under the "Equivalent Technology" approval	All Debris: Metals other than mercury.
B. Destruction Technologies:		
1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (that is, inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	All Debris: Obtain an "Equivalent Technology" approval under Section 3(2) of this administrative regulation; ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (that is, thickness limit), ⁶ except that this thickness limit may be waived under the "Equivalent Technology" approval	All Debris: Metal contaminants.
2. Chemical Destruction		
a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents (1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and (9) other oxidizing reagents of equivalent destruction efficiency. ⁴ Chemical oxidation specifically includes what is referred to as alkaline chlorination.	All Debris: Obtain an "Equivalent Technology" approval under Section 3(2) of this administrative regulation; ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (that is, thickness limit), ⁶ except that this thickness limit may be waived under the "Equivalent Technology" approval	All Debris: Metal contaminants.
b. Chemical Reduction: Chemical reaction utilizing	Same as above	Same as above.

<p>the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and (5) other reducing reagents of equivalent efficiency.⁴</p>		
<p>3. Thermal Destruction: Treatment in an incinerator operating in accordance with 401 KAR 34:240 or 401 KAR 35:240; a boiler or industrial furnace operating in accordance with 401 KAR 36:020, or other thermal treatment unit operated in accordance with 401 KAR 34:250 or 401 KAR 35:250, but excluding for purposes of these debris treatment standards Thermal Desorption units.</p>	<p>Treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p>	<p>Brick, Concrete, Glass, Metal, Pavement, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste.⁶ Obtain an "Equivalent Technology" approval under Section 3(2) of this administrative regulation,⁸ except that this requirement does not apply to vitrification.</p>
<p>C. Immobilization Technologies: 1. Macroencapsulation: Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.</p>	<p>Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</p>	<p>None.</p>
<p>2. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/ pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and compressive strength, or to reduce the leachability of the hazardous constituents.⁵</p>	<p>Leachability of the hazardous contaminants must be reduced.</p>	<p>None.</p>
<p>3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant</p>	<p>Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</p>	<p>None.</p>

FOOTNOTE: ¹Hazardous debris must be treated by either these standards or the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types, unless the debris is converted into treatment residue as a result of the treatment process. Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

FOOTNOTE: ²Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from hazardous waste regulation).

FOOTNOTE: ³"Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than five (5) percent of each square inch of surface area.

FOOTNOTE: ⁴Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris or contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

FOOTNOTE: ⁵If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the sixty (60) mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

FOOTNOTE: ⁶Dioxin-listed wastes are EPA Hazardous Waste numbers FO20, FO21, FO22, FO23, FO26, and FO27.

FOOTNOTE: ⁷Thermal desorption is distinguished from thermal destruction in that the primary purpose of thermal desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

FOOTNOTE: ⁸The demonstration "Equivalent Technology" under Section 3(2) of this administrative regulation must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

FOOTNOTE: ⁹Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

Section 7. Alternative Treatment Standards Based on HTMR. For the treatment standards previously found in this section, refer to Section 4 of this administrative regulation.

Section 8. Universal Treatment Standards. Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents, these treatment standards shall not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Table UTS Universal Treatment Standards			
Regulated constituent common name	CAS [†] No.	Wastewater Concentration in mg/l ^e	Nonwastewater standard Concentration in mg/kg ^g unless noted as "mg/l TCLP"
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	1.8
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BH	658-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromedichloromethane	75-27-4	0.35	15
Methyl bromide (Bromomethane)	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl)ether	108-60-1	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloromethane (Methyl chloride)	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chlorophenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4

VOLUME 33, NUMBER 12 – JUNE 1, 2007

o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl-phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl-phthalate	117-84-0	0.017	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	NA	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan-I	939-98-8	0.023	0.066
Endosulfan-II	33213-6-5	0.029	0.13
Endosulfan-sulfate	1-31-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin-aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
Ethyl benzene	100-41-4	0.057	10
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl)-phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
Heptachlor-epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001

VOLUME 33, NUMBER 12 – JUNE 1, 2007

HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-8	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6	0.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methanesulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex (2,4,5-TP)	93-72-1	0.72	7.9
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	93-76-5	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Bromoform (Tribromomethane)	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	10
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vinyl chloride	75-01-4	0.27	6.0
Xylenes mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Antimony	7440-36-0	1.0	2.1 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	7.6 mg/l TCLP
Beryllium	7440-41-7	0.82	0.014 mg/l TCLP
Cadmium	7440-43-9	0.69	0.19 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.86 mg/l TCLP
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride	16964-48-8	35	NA
Lead	7439-92-1	0.69	0.37 mg/l TCLP
Mercury-Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	5.0 mg/l TCLP
Selenium	7782-49-2	0.82	0.16 mg/l TCLP
Silver	7440-22-4	0.43	0.30 mg/l TCLP
Sulfide	8496-25-8	14	NA
Thallium	7440-28-0	1.4	0.078 mg/l TCLP
Vanadium	7440-62-2	4.3	0.23 mg/l TCLP
Zinc ⁵	7440-66-6	2.61	5.3 mg/l TCLP

⁴ CAS means Chemical Abstract Services. When the waste code or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.

² Concentration standards for wastewaters are expressed in mg/l are based on analysis of composite samples.

³ Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 401 KAR 34:240 and 35:240, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Section 1 of this administrative regulation. All concentration standards for nonwastewaters are based on analysis of grab samples.

⁴ Both Cyanides (Total) and Cyanides (Amenable) for non-wastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, incorporated by reference in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

⁶ Vanadium and Zinc are not "underlying hazardous constituents" in characteristic wastes, according to the definition at 401 KAR 37:005.

Note: NA means not applicable.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 37:050. Prohibitions on storage.

RELATES TO: KRS Subchapters n224.01, 224.10, 224.40,

224.43, 224.46, 224.70, 224.99, 40 C.F.R. **268.50** [268 Subpart E] STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520, 224.46-530[, 40 C.F.R. 268 Subpart E]

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment. This administrative regulation [implements] [To implement] [provisions of KRS 224.46-505, 224.46-520, and 224.46-530 and] estab-**lishes [to-establish] prohibitions on storage of restricted wastes.

Section 1. [Reference to Federal Regulations Regarding] Pro-hibitions on Storage of Restricted Wastes. (1) **Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 268.50, effective July 1, 2005.**

(2) The citation to Section 3004 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

[Section 1. Prohibitions on Storage of Restricted Waste. (1) Except as provided in this section, the storage of hazardous wastes restricted from land disposal under 401 KAR 37:030 or KRS 224.46-520 is prohibited, unless the following conditions are met:

(a) A generator stores such wastes in tanks, containers, or containment buildings on site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in section 5 of 401 KAR 32:030 and 401 KAR Chapters 34 and 35.

(b) An owner or operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:

1. Each container is clearly labeled with the words "Hazardous Waste," marked to identify its contents and the date each period of accumulation begins;

2. Each tank is clearly labeled with the words "Hazardous Waste," marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator shall com-

VOLUME 33, NUMBER 12 – JUNE 1, 2007

ply with the operating record requirements specified in Section 4 of 401 KAR 34:050 or Section 4 of 401 KAR 35:050.

(c) A transporter stores manifested shipments of such wastes at a transfer facility for ten (10) days or less.

(2) An owner or operator of a treatment, storage or disposal facility may store such wastes for up to one (1) year unless the cabinet can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(3) An owner or operator of a treatment, storage or disposal facility may store such wastes beyond one (1) year, however, the owner or operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(4) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste (for example, because of an approved case-by-case extension under Section 5 of 401 KAR 37:010, an approved Section 6 of 401 KAR 37:010 petition, or a national capacity variance under 401 KAR 37:030), the prohibition in subsection (1) of this section does not apply during the period of such exemption.

(5) The prohibition in subsection (1) of this section does not apply to hazardous wastes that meet the treatment standards specified in 401 KAR 37:040 or the treatment standards specified under the variance in Section 4 of 401 KAR 37:040 or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in Section 3 of 401 KAR 37:030 or KRS 224.46-520.

(6) Liquid hazardous waste containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to fifty (50) ppm shall be stored at a facility that meets the requirements of 40 C.F.R. 761.65(b) and shall be removed from storage and treated or disposed as required by this chapter within one (1) year of the date when such wastes are first placed into storage. The provisions of subsection (3) of this section do not apply to such PCB wastes prohibited under Section 3 of 401 KAR 37:030.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 37:060. Appendix to 401 KAR Chapter 37.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.70, 224.99, 40 C.F.R. 268 Appendices III to XI
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520, 224.46-530[, 40 C.F.R. 268 Appendices III to XI]

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.46-505 and 224.46-520 authorize the Environmental and Public Protection Cabinet to control land disposal of hazardous waste to be protective of human health and the environment.** This administrative regulation establishes references to federal appendices that relate to prohibitions on storage of restricted wastes.

Section 1. List of Halogenated Organic Compounds Regulated Under 401 KAR Chapter 37. The subject matter shall be governed by 40 C.F.R. 268 Appendix III, effective July 1, 2005.

Section 2. Wastes Excluded From Lab Packs Under Alternative Treatment Standards. The subject matter shall be governed by 40 C.F.R. 268 Appendix IV, effective July 1, 2005.

Section 3. Recommended Technologies to Achieve Deactiva-

tion of Characteristics in 401 KAR 37:040. The subject matter shall be governed by 40 C.F.R. 268 Appendix VI, effective July 1, 2005.

Section 4. LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes. The subject matter shall be governed by 40 C.F.R. 268 Appendix VII, effective July 1, 2005.

Section 5. LDR Effective Dates of Injected Prohibited Hazardous Wastes. The subject matter shall be governed by 40 C.F.R. 268 Appendix VIII, effective July 1, 2005.

Section 6. Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310B). The subject matter shall be governed by 40 C.F.R. 268 Appendix IX, effective July 1, 2005.

Section 7. Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit. The subject matter shall be governed by 40 C.F.R. 268 Appendix XI, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049, email Bruce.Scott@ky.gov.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:005. Definitions for [related to] 401 KAR Chapter 38.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 40 C.F.R. 260.10, 270.2

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-505, 224.46-520

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.10-100(30) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations.** [This chapter implements provisions of KRS 224.46-520 and 224.46-530 relating to hazardous waste permits.] This administrative regulation defines essential terms that are used in **401 KAR Chapter 38**[this chapter]. [The majority of terms defined in this administrative regulation are equivalent to federal terms contained in 40 C.F.R. Parts 260 through 299.] Some federal terms have been modified [clarified to eliminate federal ambiguities and] to conform to Kentucky statutory mandates. Definitions contained in KRS Chapter 224 have been referenced to the appropriate statutory citation. Some terms do not have a federal counterpart and [-These terms] have been added to clarify requirements and provisions of KRS Chapter 224 and **401 KAR Chapter 38**[this chapter].

Section 1. Definitions. **Except as provided in this section, the definitions established in 40 C.F.R. 260.10, effective September 9, 2005, shall apply.** [The subject matter shall be governed by 40 C.F.R. 260.10 and 270.2, effective September 9, 2005. The following modifications, exceptions, and additions set forth in this section shall amend 40 C.F.R. 260.10 and 270.2.]

(1) **"100-year flood" means a flood that has a one (1) percent chance of being equaled or exceeded in any given year.**

(2) **"100-year floodplain" means any land area which is subject to a one (1) percent or greater chance of flooding in any given year from any source.**

[(2) **"100-year flood" means a flood that has a one (1) percent chance of being equaled or exceeded in any given year.**]

(3) **"Administrator", "agency", "regional administrator", "assistant administrator", "assistant administrator for solid waste and emergency response", "director", "regional director", or "state director" means cabinet as defined in KRS 224.01-010(9).**

(4) **"Burn" means burning for energy recovery or destruction, or**

VOLUME 33, NUMBER 12 – JUNE 1, 2007

processing for materials recovery or as an ingredient.

(5) "Cabinet" is defined by KRS 224.01-010(9).

(6) "Closure" is defined by KRS 224.01-010(4).

(7) "Corrective Action Management Unit" or "CAMU" means an area within a facility that:

(a) Is designated by the cabinet under 401 KAR 34:287, for the purpose of implementing corrective action requirements under 401 KAR 34:060, Section 12 and KRS 224.46-520; and

(b) ~~A CAMU~~ Shall only be used for the management of remediation wastes pursuant to implementing ~~the[such]~~ corrective action requirements at the facility.

(8) "Disposal" is defined by KRS 224.01-010(10).

(9) "Environmental Protection Agency" or "EPA" means the Kentucky Department for Environmental Protection except ~~if when~~ used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".

(10) "Federal Register" means the "Kentucky Administrative Register" as described in KRS 13A.050.

(11) "Generator" is defined by KRS 224.01-010(13).

(12) "Hazardous waste" is defined by KRS 224.01-010(31)(b).

(13) "Hazardous waste site or facility" means any place at which hazardous waste is treated, stored, or disposed of by landfilling, incineration, or any other method ~~and~~ ~~Hazardous waste site or facility~~ includes ~~:~~ boiler, ~~:~~ disposal facility, ~~:~~ elementary neutralization unit, ~~:~~ incinerator, ~~:~~ industrial furnace, ~~:~~ hazardous waste transfer facility, ~~:~~ injection well, ~~:~~ landfill, ~~:~~ land treatment facility, ~~:~~ miscellaneous unit, ~~:~~ pile or waste pile, ~~:~~ replacement unit, ~~:~~ storage facility, ~~:~~ sludge dryer, ~~:~~ surface impoundment, ~~:~~ tank, ~~:~~ thermal treatment facility, ~~:~~ totally enclosed treatment facility, ~~:~~ treatment facility, ~~:~~ or wastewater treatment unit.

(14) "Interim status" means the designation of a hazardous waste site or facility which was in existence on November 19, 1980, and has submitted a Part A application under 401 KAR Chapter 38 or under 40 C.F.R. Part 270 and is treated as having a permit until final administrative disposition of the application is made.

(15) "KPDES" means the Kentucky Pollution Discharge Elimination System.

(16) "Manifest" is defined by KRS 224.01-010(37).

(17) "Monitoring" means the act of systematically inspecting and collecting data on operational parameters or on the quality of the air, soil, groundwater, or surface water.

(18) "Part A of the application" or "Part A" means the standard forms or format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:080.

(19) "Part B of the application" or "Part B" means the standard format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:090 to ~~38:300~~ ~~38:210~~.

(20) "Permit by rule" means authorization allowing certain classes of sites or facilities to manage waste consistent with 401 KAR Chapters 30 to 49, without submission of a registration or permit application to the cabinet, ~~including~~ ~~Examples of hazardous waste sites or facilities which are permitted by rule include~~ facilities operating under an interim status permit and facilities identified in 401 KAR 38:060, Section 1.

(21) "Permittee" means any person holding a valid permit issued by the cabinet to manage, treat, store, or dispose of waste.

(22) "Person" is defined by KRS 224.01-010(17).

(23) "Publicly owned treatment works" or "POTW" is defined by KRS 224.01-010(19).

(24) "Research, development, and demonstration permit" means a permit issued by the cabinet for a hazardous waste treatment facility that utilizes an innovative and experimental hazardous waste treatment technology or process for which permit standards for ~~the[such]~~ experimental activity have not been promulgated under 401 KAR Chapters 34, 35, ~~or~~ ~~through~~ 36.

(25) "Solid waste" ~~is~~ ~~means~~ "waste" as defined in KRS 224.01-010(31)(a).

(26) "State" means cabinet as defined in KRS 224.01-010(9).

(27) "Storage" is defined by KRS 224.01-010(28).

(28) "Transfer facility" is defined by KRS 224.01-010(48).

(29) "Transportation" is defined by KRS 224.01-010(29).

(30) "Treatment" is defined by KRS 224.01-010(30).

(31) "UIC well" means an underground injection control well as provided in 40 C.F.R. Part 144.

(32) "United States" means the Commonwealth of Kentucky.

(33) "Used oil" is defined by KRS 224.50-545(2)(a).

(34) "Water[Waters]" or "Waters of the Commonwealth" is defined by KRS 224.01-010(33).

Section 2. Substitution of Federal References. (1) The following federal parts and subparts, which are cited by federal regulations referenced in 401 KAR Chapter 38, shall be substituted with the state administrative regulations listed below.

Federal Regulation	State Regulation
40 C.F.R. Part 260	401 KAR Chapter 30
40 C.F.R. 260 Subpart A	401 KAR 30:020
40 C.F.R. 260 Subpart B	401 KAR 30:005, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, 401 KAR 44:005, and 401 KAR 30:020
40 C.F.R. 260 Subpart C	401 KAR 30:035
40 C.F.R. Part 261	401 KAR Chapter 31
40 C.F.R. 261 Subpart A	401 KAR 31:010
40 C.F.R. 261 Subpart B	401 KAR 31:020
40 C.F.R. 261 Subpart C	401 KAR 31:030
40 C.F.R. 261 Subpart D	401 KAR 31:040
40 C.F.R. Part 262	401 KAR Chapter 32
40 C.F.R. 262 Subpart A	401 KAR 32:010
40 C.F.R. 262 Subpart B	401 KAR 32:020
40 C.F.R. 262 Subpart C	401 KAR 32:030
40 C.F.R. 262 Subpart D	401 KAR 32:040
40 C.F.R. 262 Subpart E	401 KAR 32:050, Sections 1-9
40 C.F.R. 262 Subpart F	401 KAR 32:050, Section 10
40 C.F.R. 262 Subpart G	401 KAR 32:060
40 C.F.R. 262 Subpart H	401 KAR 32:065
40 C.F.R. Part 263	401 KAR Chapter 33
40 C.F.R. 263 Subpart A	401 KAR 33:010
40 C.F.R. 263 Subpart B	401 KAR 33:020
40 C.F.R. 263 Subpart C	401 KAR 33:030
40 C.F.R. Part 264	401 KAR Chapter 34
40 C.F.R. 264 Subpart A	401 KAR 34:010
40 C.F.R. 264 Subpart B	401 KAR 34:020
40 C.F.R. 264 Subpart C	401 KAR 34:030
40 C.F.R. 264 Subpart D	401 KAR 34:040
40 C.F.R. 264 Subpart E	401 KAR 34:050
40 C.F.R. 264 Subpart F	401 KAR 34:060
40 C.F.R. 264 Subpart G	401 KAR 34:070
40 C.F.R. 264 Subpart H	401 KAR 34:080, 401 KAR 34:090, 401 KAR 34:100, 401 KAR 34:110, 401 KAR 34:120, 401 KAR 34:130
40 C.F.R. 264 Subpart I	401 KAR 34:180
40 C.F.R. 264 Subpart J	401 KAR 34:190
40 C.F.R. 264 Subpart K	401 KAR 34:200
40 C.F.R. 264 Subpart L	401 KAR 34:210
40 C.F.R. 264 Subpart M	401 KAR 34:220
40 C.F.R. 264 Subpart N	401 KAR 34:230
40 C.F.R. 264 Subpart O	401 KAR 34:240
40 C.F.R. 264 Subpart S	401 KAR 34:287
40 C.F.R. 264 Subpart W	401 KAR 34:285
40 C.F.R. 264 Subpart X	401 KAR 34:250
40 C.F.R. 264 Subpart AA	401 KAR 34:275
40 C.F.R. 264 Subpart BB	401 KAR 34:280
40 C.F.R. 264 Subpart CC	401 KAR 34:281
40 C.F.R. 264 Subpart DD	401 KAR 34:245
40 C.F.R. 264 Subpart EE	401 KAR 34:370

VOLUME 33, NUMBER 12 – JUNE 1, 2007

40 C.F.R. Part 265	401 KAR Chapter 35
40 C.F.R. 265 Subpart A	401 KAR 35:010
40 C.F.R. 265 Subpart B	401 KAR 35:020
40 C.F.R. 265 Subpart C	401 KAR 35:030
40 C.F.R. 265 Subpart D	401 KAR 35:040
40 C.F.R. 265 Subpart E	401 KAR 35:050
40 C.F.R. 265 Subpart F	401 KAR 35:060
40 C.F.R. 265 Subpart G	401 KAR 35:070
40 C.F.R. 265 Subpart H	401 KAR 35:080, 401 KAR 35:090, 401 KAR 35:100, 401 KAR 35:110, 401 KAR 35:120, 401 KAR 35:130
40 C.F.R. 265 Subpart I	401 KAR 35:180
40 C.F.R. 265 Subpart J	401 KAR 35:190
40 C.F.R. 265 Subpart K	401 KAR 35:200
40 C.F.R. 265 Subpart L	401 KAR 35:210
40 C.F.R. 265 Subpart M	401 KAR 35:220
40 C.F.R. 265 Subpart N	401 KAR 35:230
40 C.F.R. 265 Subpart O	401 KAR 35:240
40 C.F.R. 265 Subpart P	401 KAR 35:250
40 C.F.R. 265 Subpart Q	401 KAR 35:260
40 C.F.R. 265 Subpart R	401 KAR 35:270
40 C.F.R. 265 Subpart W	401 KAR 35:285
40 C.F.R. 265 Subpart AA	401 KAR 35:275
40 C.F.R. 265 Subpart BB	401 KAR 35:280
40 C.F.R. 265 Subpart CC	401 KAR 35:281
40 C.F.R. 265 Subpart DD	401 KAR 35:245
40 C.F.R. 265 Subpart EE	401 KAR 35:350
40 C.F.R. Part 266	401 KAR Chapter 36
40 C.F.R. 266 Subpart C	401 KAR 36:030
40 C.F.R. 266 Subpart F	401 KAR 36:060
40 C.F.R. 266 Subpart G	401 KAR 36:070
40 C.F.R. 266 Subpart H	401 KAR 36:020
40 C.F.R. 266 Subpart M	401 KAR 36:080
40 C.F.R. 266 Subpart N	401 KAR 36:090
40 C.F.R. Part 268	401 KAR Chapter 37
40 C.F.R. 268 Subpart A	401 KAR 37:010
40 C.F.R. 268 Subpart B	401 KAR 37:020
40 C.F.R. 268 Subpart C	401 KAR 37:030
40 C.F.R. 268 Subpart D	401 KAR 37:040
40 C.F.R. 268 Subpart E	401 KAR 37:050
40 C.F.R. Part 270	401 KAR Chapter 38
40 C.F.R. 270 Subpart A	401 KAR 38:010
40 C.F.R. 270 Subpart B	401 KAR 38:070, 401 KAR 38:080, 401 KAR 38:090, 401 KAR 38:150 through 401 KAR 38:310
40 C.F.R. 270 Subpart C	401 KAR 38:030
40 C.F.R. 270 Subpart D	401 KAR 38:040, Sections 1 through 4, 7
40 C.F.R. 270 Subpart E	401 KAR 38:040, Sections 5 and 6
40 C.F.R. 270 Subpart F	401 KAR 38:060
40 C.F.R. 270 Subpart G	401 KAR 38:020
40 C.F.R. 270 Subpart H	401 KAR 38:320
40 C.F.R. 270 Subpart I	401 KAR 38:330
[40 C.F.R. 270 Subpart J]	[401 KAR 38:340]
40 C.F.R. Part 124	401 KAR 38:050
40 C.F.R. Part 273	401 KAR Chapter 43
40 C.F.R. 273 Subpart A	401 KAR 43:010
40 C.F.R. 273 Subpart B	401 KAR 43:020
40 C.F.R. 273 Subpart C	401 KAR 43:030
40 C.F.R. 273 Subpart D	401 KAR 43:040
40 C.F.R. 273 Subpart E	401 KAR 43:050
40 C.F.R. 273 Subpart F	401 KAR 43:060[43:070]
40 C.F.R. 273 Subpart G	401 KAR 43:070[43:080]
40 C.F.R. Part 279	401 KAR Chapter 44
40 C.F.R. 279 Subpart A	401 KAR 44:005

40 C.F.R. 279 Subpart B	401 KAR 44:010
40 C.F.R. 279 Subpart C	401 KAR 44:020
40 C.F.R. 279 Subpart D	401 KAR 44:030
40 C.F.R. 279 Subpart E	401 KAR 44:040
40 C.F.R. 279 Subpart F	401 KAR 44:050
40 C.F.R. 279 Subpart G	401 KAR 44:060
40 C.F.R. 279 Subpart H	401 KAR 44:070
40 C.F.R. 279 Subpart I	401 KAR 44:080

(2) The requirements of the following federal regulations, which are referenced in 401 KAR Chapter 38, shall include the modifications, exceptions, and additions that are specific to the Commonwealth of Kentucky set forth in the following state administrative regulations referenced in the table below.

Federal Regulation	State Regulation
40 C.F.R. 260.10	401 KAR 30:005, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, 401 KAR 44:005, and 401 KAR 30:020
40 C.F.R. 261.4	401 KAR 31:010, Section 4
40 C.F.R. 264.97	401 KAR 34:060, Section 8
40 C.F.R. 264.221	401 KAR 34:200, Section 2
40 C.F.R. 264.301	401 KAR 34:230, Section 2
40 C.F.R. 264.251	401 KAR 34:210, Section 2
40 C.F.R. 265.94	401 KAR 35:060, Section 5
40 C.F.R. 264.1082	401 KAR 34:281, Section 2
40 C.F.R. 266.205	401 KAR 36:080, Section 6
40 C.F.R. 270.2	401 KAR 38:005
40 C.F.R. 270.3	401 KAR 38:010, Section 2
40 C.F.R. 270.10	401 KAR 38:070, Section 1
40 C.F.R. 270.14	401 KAR 38:090
40 C.F.R. 270.17	401 KAR 38:170
40 C.F.R. 270.50	401 KAR 38:040, Section 5
40 C.F.R. 270.60	401 KAR 38:060
40 C.F.R. 270.61	401 KAR 38:060, Section 2
40 C.F.R. 270.62	401 KAR 38:060, Section 3
40 C.F.R. 270.63	401 KAR 38:060, Section 4

(3) The following federal regulations, which are cited by the federal regulations referenced in 401 KAR Chapter 38 shall be replaced with the state administrative regulations as identified in the table below.

Federal Regulation	State Regulation
40 C.F.R. Part 60 Appendix A	401 KAR 59:020
[40 C.F.R. Part 124]	[401 KAR 38:050]
40 C.F.R. Part 257	401 KAR Chapter 47
40 C.F.R. Part 258	401 KAR Chapter 48
40 C.F.R. 264.18	401 KAR 34:020, Section 9
40 C.F.R. 264.94	401 KAR 34:060, Section 5
40 C.F.R. 264.101	401 KAR 34:060, Section 12
40 C.F.R. 264.140	401 KAR 34:080, Section 2
40 C.F.R. 264.141	401 KAR 34:080, Section 1[3]
40 C.F.R. 264.142	401 KAR 34:090, Section 1
40 C.F.R. 264.143	401 KAR 34:090, Sections 2 through 12
40 C.F.R. 264.144	401 KAR 34:100, Section 1
40 C.F.R. 264.145	401 KAR 34:100, Sections 2 through 12
40 C.F.R. 264.146	401 KAR 34:110
40 C.F.R. 264.147	401 KAR 34:120
40 C.F.R. 264.148	401 KAR 34:130
40 C.F.R. 265.140	401 KAR 35:080, Section 2
40 C.F.R. 265.141	401 KAR 35:080, Section 1
40 C.F.R. 265.142	401 KAR 35:090, Section 1
40 C.F.R. 265.143	401 KAR 35:090, Sections 2 through 11
40 C.F.R. 265.144	401 KAR 35:100, Section 1

40 C.F.R. 265.145	401 KAR 35:100, Sections 2 through 11
40 C.F.R. 265.146	401 KAR 35:110
40 C.F.R. 265.147	401 KAR 35:120
40 C.F.R. 265.148	401 KAR 35:130
40 C.F.R. 266.106	401 KAR 36:020, Section 8
40 C.F.R. 266 Appendix I, Table I-D	401 KAR 36:025, Section 1(2)(a)
40 C.F.R. 266 Appendix I, Table I-E	401 KAR 36:025, Section 1(2)(b)
40 C.F.R. 266 Appendix V	401 KAR 36:025, Section 5
40 C.F.R. 270.13	401 KAR 38:080
40 C.F.R. 270.30	401 KAR 38:030, Section 1
40 C.F.R. 270.51	401 KAR 38:040, Section 6
40 C.F.R. Part 280	401 KAR Chapter 42

[Section 1. Definitions. Unless otherwise specifically defined in KRS Chapter 224 or otherwise specifically indicated by context, terms in 401 KAR Chapter 38 shall have the meanings given in this Section.

(1) "100-year floodplain" means any land area which is subject to a one (1) percent or greater chance of flooding in any given year from any source.

(2) "100-year flood" means a flood that has a one (1) percent chance of being equaled or exceeded in any given year.

(3) "Aboveground tank" means a device meeting the definition of "tank" and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

(4) "Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

(5) "Accumulated speculatively" means that a material is accumulated before being recycled.

(a) A material is not accumulated speculatively, if the person accumulating it can show:

1. That the material is potentially recyclable and has a feasible means of being recycled; and

2. That during the calendar year (commencing on January 1) the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy five (75) percent by weight or volume of the amount of that material accumulated at the beginning of the calendar year (including any material accumulated from previous years).

(b) In calculating the percentage of turnover, the seventy five (75) percent requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units that would be exempt from administrative regulation under Section 4(3) of 401 KAR 31:010 are not to be included in making the calculation. (Materials that are already defined as wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling.

(6) "Active fault" means a land area which, according to the weight of geological evidence, has a reasonable probability of being affected by movement along a fault to the extent that a waste site or facility would be damaged and thereby pose a threat to human health and the environment.

(7) "Active life" of a facility means the period from the initial receipt of waste at a waste site or facility until the cabinet receives certification of final closure.

(8) "Active portion" means any area of a facility where treatment, storage, or disposal operations are being or have been conducted and which have not been closed. It includes the treated area of a landfarm and the active face of a landfill. Covered, closed, or inactive portions of landfills, building roofs, and roads are excluded unless designated as "active portions" by the cabinet.

(9) "Admixed liner" means a liner made from a mixture of any of a multitude of materials, often asphalt or cement, with widely varying physical and chemical properties. Admixed liners shall be

demonstrated to be structurally sound and chemically resistant to the waste placed in it so as to be capable of supporting the waste without cracking or disintegrating or allowing waste or leachate to escape.

(10) "Agricultural waste" means any nonhazardous waste resulting from the production and processing of on-the-farm agricultural products, including manures, prunings and crop residues.

(11) "Air stripping operation" is a desorption operation employed to transfer one (1) or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble cap, sieve, or valve type plate towers are among the process configurations used for contacting the air and a liquid.

(12) "Ampule" means a small sealed glass container for one (1) dose of sterile medicine.

(13) "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to hazardous waste management units including tanks between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

(14) "Application" means the form approved by the cabinet for applying for a permit, including any additions, revisions or modifications and any narrative and drawings required by 401 KAR Chapters 30 to 48. The term includes: Part A of the application (Part A); Part B of the application (Part B); notice of intent; administration application; special waste application; or technical application.

(15) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(16) "As received waste" refers to the waste as received in the shipment from the generator or sample collector.

(17) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

(18) "Attenuation" means any decrease in the maximum concentration or total quantity of an applied chemical or biological constituent in a fixed time or distance traveled resulting from a physical, chemical, or biological reaction or transformation occurring in the zone of aeration or zone of saturation.

(19) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit or part of a facility, such as the plant manager, superintendent, or person of equivalent responsibility.

(20) "Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Section 4 of 401 KAR 35:281.

(21) "Base flood" means a flood that has a one (1) percent or greater chance of recurring in any year, or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

(22) "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(23) "Board" shall have the meaning specified in KRS 224.46-810.

(24) "Bodily injury" shall have the meaning given by applicable Kentucky statutes. Bodily injury does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for bodily injury.

(25) "Boiler" means an enclosed device using control flame combustion and having the following characteristics:

(a)1. The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

2. The unit's combustion chamber and primary energy recovery section(s) shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section

(such as water walls and superheaters) shall be physically formed into one (1) manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream) and fluidized bed combustion units; and

3. While in operation, the unit shall maintain a thermal energy recovery efficiency of at least sixty (60) percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

4. The unit shall export and utilize at least seventy-five (75) percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(b) The unit is one (1) which the cabinet has determined, on a case-by-case basis, to be a boiler, after considering the standards in 401 KAR 30:080.

(26) "Bottoms receiver" means a container or tank used to receive and collect heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(27) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

(28) "By-product" is a material that is not one (1) of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(29) "Cabinet" shall have the meaning specified in KRS 224.01-010.

(30) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(31) "Cation exchange capacity" means the sum of exchangeable cations a soil can absorb expressed in milliequivalents per 100 grams of soil as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the summation method for distinctly acid soils or the sodium acetate method for neutral, calcareous, or saline soils.

(32) "Certificate" shall have the meaning specified in KRS 224.46-810.

(33) "Certification" means a statement of professional opinion based upon knowledge and belief.

(34) "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements.

(35) "Closed vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(36) "Closure plan" means the plan for closure prepared in accordance with the requirements of Section 3 of 401 KAR 34:070 or Section 3 of 401 KAR 35:070.

(37) "Closure" shall have the meaning specified in KRS 224.01-010.

(38) "Component" means either the tank or ancillary equipment of a tank system.

(39) "Condenser" means a heat transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(40) "Conditionally exempt small quantity generator" means:

(a) A generator who generates no more than 100 kilograms of hazardous waste in a calendar month; or

(b) A generator who generates acutely hazardous waste listed in Sections 2, 3, and 4(5) of 401 KAR 31:040 in a calendar month in quantities no greater than one (1) kilogram. All quantities of that acutely hazardous waste are subject to administrative regulation under 401 KAR Chapters 32 through 39, and the notification and permitting requirements of KRS 224.01-400, 224.40-310, 224.46-

510, 224.46-580, and 224.50-130 to 224.50-413.

(41) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

(42) "Connector" means flanged, screwed, welded, or other joined fitting used to connect two (2) pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(43) "Consignee" means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste is sent.

(44) "Constituent" shall have the same meaning as "hazardous waste constituent."

(45) "Container" means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves (for example, tank trucks, tanker trailers, and rail tank cars), and containers placed on or in a transport vehicle.

(46) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 401 KAR 34:245 or 35:245.

(47) "Contaminate" means introduce a substance that would cause:

(a) The concentration of that substance in the groundwater to exceed the maximum contaminant level specified in 401 KAR 30:031, Sections 5 and 6 of 401 KAR 47:030, or Section 8 of 401 KAR 34:060;

(b) An increase in the concentration of that substance in the groundwater where the existing concentration of that substance exceeds the maximum contaminant level specified in 401 KAR 30:031, 401 KAR 47:030, or Section 8 of 401 KAR 34:060; or

(c) A significant increase above established background levels, for substances that do not have an established maximum contamination level.

(48) "Contamination" means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

(49) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or release of waste or waste constituents into the environment which has the potential for endangering human health and the environment. Financial planning to identify resources for initiation of such action is a part of contingency plan development.

(50) "Continuous recorder" means a data recording device recording an instantaneous data value at least once every 15 minutes.

(51) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(52) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (for example, a primary condenser on a solvent recovery unit) is not a control device.

(53) "Corrective action management unit" or "CAMU" means an area within a facility that is designated by the cabinet under 401 KAR 34:287, for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34:060 and KRS 224.46-520. A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(54) "Cover" means a device or system which is placed on or over a hazardous waste such that the entire hazardous waste surface area is enclosed and sealed to reduce air emissions to the atmosphere. A cover may have openings such as access hatches, sampling ports, and gauge wells that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is installed provided that each opening is closed and sealed when not in use. Examples of covers include a fixed roof installed on a tank, a floating membrane cover installed on a surface impoundment, a lid installed on a drum, and an enclosure in which an open container is placed during waste treatment.

(55) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(56) "Current closure cost estimates" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34:090 or Section 1(1), (2) and (3) of 401 KAR 35:090.

(57) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(58) "Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 40 C.F.R. 144.62(a), (b), and (c).

(59) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34:100 or Section 1(1), (2) and (3) of 401 KAR 35:100.

(60) "Debris" means solid material exceeding a 60mm particle size that is intended for disposal and that is: a manufactured object; plant or animal matter; or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in 401 KAR 37:040, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section 6 of 401 KAR 37:040 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(61) "Designated facility" means a hazardous waste treatment, storage, or disposal facility which:

(a) Has received a hazardous waste site or facility permit (or a facility with interim status) in accordance with the requirements of 401 KAR Chapter 38;

(b) Has received a permit from a state authorized in accordance with 40 C.F.R. Part 271, and EPA permit (or a facility with interim status) in accordance with 40 C.F.R. Parts 270 and 124; or

(c) Is regulated under Section 6(3)(b) of 401 KAR 31:010 or 401 KAR Chapter 36, 40 C.F.R. 261.6(c)(2) or 40 C.F.R. Part 266; and

(d) That has been designated on the manifest by the generator pursuant to Section 1 of 401 KAR 32:020. If a waste is destined to a hazardous waste site or facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept that waste.

(62) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Section 4(1) and (3) of 401 KAR 43:020 and Section 4(1) and (3) of 401 KAR 43:030. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(63) "Destruction or adverse modification" means an alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(64) "Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

(65) "Direct transfer equipment" means any device (including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (for example, transport vehicle) and a boiler or industrial furnace.

(66) "Disposal" shall have the meaning specified in KRS 224.01-010.

(67) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management

unit into which remediation wastes are placed.

(68) "Distillate receiver" means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(69) "Distillation operation" means an operation, either batch or continuous, separating one (1) or more feed stream(s) into two (2) or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(70) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(71) "Double block and bleed system" means two (2) block valves connected in series with a bleed valve or line that can vent the line between the two (2) block valves.

(72) "Draft permit" shall have the same meaning as "proposed permit".

(73) "Drip pad" means an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood-preserving plants.

(74) "Effluent Limitations" shall have the same meaning as KRS 224.01-010.

(75) "Elementary neutralization unit" means a device which:

(a) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section 3 of 401 KAR 31:030, or they are listed in 401 KAR 31:040 only for this reason; and

(b) Meets the definition of tank, tank system, container, transport vehicle, or vessel in this section.

(76) "Emergency permit" means a permit issued by the cabinet to temporarily store, treat or dispose of hazardous waste in accordance with the provisions of Section 2 of 401 KAR 38:060, to temporarily manage, process, or dispose of a solid waste in accordance with the provisions of Section 2 of 401 KAR 47:150 or to temporarily store, treat, or dispose of special waste in accordance with the provisions of Section 1 of 401 KAR 45:135.

(77) "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Endangered Species Act, as amended, 16 U.S.C. 1536.

(78) "Engineer" shall have the meaning specified in KRS 322.010. An independent, professional engineer shall be registered in Kentucky pursuant to KRS 322.040 and shall be qualified to engage in waste management engineering practices.

(79) "EPA acknowledgment of consent" means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

(80) "EPA hazardous waste number" means the number assigned by EPA and the cabinet to each hazardous waste listed in 401 KAR 31:040, and to each characteristic identified in 401 KAR 31:030.

(81) "EPA identification number" means the number assigned by EPA or the cabinet to each generator; transporter; or treatment, storage, or disposal facility.

(82) "Ephemeral stream" means a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and which has a channel bottom that is always above the local water table.

(83) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by 401 KAR 34:275.

(84) "Equivalent method" means any testing or analytical method, approved jointly by the administrator and the secretary under 401 KAR Chapter 31, or methods in 401 KAR Chapters 47 and 48, approved by the secretary of the cabinet.

(85) "Existing" indicates a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning, or processing hazardous waste or for which construction (including the ancil-

lary facilities to burn or to process the hazardous waste) has commenced.

(86) "Existing component" shall have the same meaning as "existing tank system."

(87) "Existing facility" shall have the same meaning as "existing hazardous waste site or facility".

(88) "Existing hazardous waste site or facility" means a hazardous waste facility which was in operation, or for which continuous construction had commenced, on or before November 10, 1980. A facility has commenced construction if:

(a) The owner or operator had obtained the federal, state and local approvals or permits necessary to begin physical construction; and

(b) Either:

1. A continuous on-site, physical construction program has begun; or

2. The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(89) "Existing portion" means that land surface area of an existing hazardous waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(90) "Existing tank system" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(a) A continuous on-site physical construction or installation program has begun; or

(b) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(91) "External floating roof" means a pontoon or double-deck type floating roof that rests on the surface of a hazardous waste being managed in a tank that has no fixed roof.

(92) "Face amount" means the total amount the insurer is obligated to pay under the policy.

(93) "Facility" means:

(a) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one (1) or more landfills, surface impoundments, or combinations of them).

(b) For the purpose of implementing corrective action under Section 12 of 401 KAR 34:060, all contiguous property under the control of the owner or operator seeking a hazardous waste permit. This definition also applies to facilities implementing corrective action under KRS 224.46-520.

(94) "Facility mailing list" means the mailing list for a facility maintained in accordance with Section 7(3)(a)4c of 401 KAR 38:050.

(95) "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the United States Government Printing Office.

(96) "Federal, state, and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, administrative regulations, or ordinances.

(97) "Final closure" of a hazardous waste site or facility means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 401 KAR Chapters 34 and 35 are no longer conducted at the facility unless subject to the provisions in Section 5 of 401 KAR 32:030.

(98) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(99) "Fiscal year" means a twelve (12) month period for accounting and other financial purposes.

(100) "Fixed roof" means a rigid cover that is installed in a stationary position so that it does not move with fluctuations in the level of the hazardous waste placed in a tank.

(101) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(102) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

(103) "Floating roof" means a pontoon-type or double-deck type cover that rests upon and is supported by the hazardous waste being managed in a tank, and is equipped with a closure seal or seals to close the space between the cover edge and the tank wall.

(104) "Flood plain" means areas adjoining inland waters which are inundated by the base flood, unless otherwise specified in 401 KAR 30:031 or 401 KAR 47:030, and includes: 100-year floodplain and floodway.

(105) "Floodway" means the channel of the waterway, stream or river and that portion of the adjoining floodplain which provides for passage of the 100-year flood flow without increasing the floodwater depth across the 100-year floodplain by more than one (1) foot.

(106) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(107) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(108) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(109) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(110) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

(111) "Generator" shall have the meaning specified in KRS 224.01-010.

(112) "Governing body" shall have the same meaning as KRS 224.01-010.

(113) "Groundwater" means the subsurface water occurring in the zone of saturation beneath the water table, and perched water zones below the B soil horizon, including water circulating through fractures, bedding planes, and solution conduits.

(114) "Groundwater table" means the upper boundary of the saturated zone in which the hydrostatic pressure of the groundwater is equal to the atmospheric pressure.

(115) "Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond that are listed under 401 KAR 37:110.

(116) "Hazardous constituent" shall have the meaning specified in KRS 224.01-010.

(117) "Hazardous debris" means debris that contains a hazardous waste listed in 401 KAR 31:040 or that exhibits a characteristic of hazardous waste identified in 401 KAR 31:030.

(118) "Hazardous waste" shall have the meaning specified in KRS 224.01-010.

(119) "Hazardous waste constituent" means a constituent which caused the cabinet to list the hazardous waste in 401 KAR 31:040, or a constituent listed in Section 5(3) of 401 KAR 31:030.

(120) "Hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(121) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a

container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed. Hazardous waste management units include: aboveground tank; component; existing tank system or existing component; in-ground tank; new tank system or new tank component; on-ground tank; tank system; underground tank; or unfit-for-use tank system.

(122) "Hazardous waste management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than twenty-four (24) hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(123) "Hazardous waste site or facility" means any place at which hazardous waste is treated, stored, or disposed of by landfilling, incineration, or any other method. Hazardous waste site or facility includes: boiler; disposal facility; elementary neutralization unit; incinerator; industrial furnace; hazardous waste transfer facility; injection well; landfill; land treatment facility; miscellaneous unit; pile or waste pile; replacement unit; storage facility; sludge dryer; surface impoundment; tank; thermal treatment facility; totally enclosed treatment facility; treatment facility; or wastewater treatment unit.

(124) "Hazardous waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(125) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene to the present.

(126) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum jet or steam jet ejector.

(127) "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(128) "In existence" shall have the same meaning as "existing."

(129) "In gas service" means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(130) "In heavy liquid service" means that the piece of equipment is not in gas service or in vapor service or in light liquid service.

(131) "In light liquid service" means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one (1) or more of the components in the stream is greater than three tenths (0.3) kilopascals (kPa) at twenty (20) degrees Centigrade, the total concentration of the pure components having a vapor pressure greater than three tenths (0.3) kPa at twenty (20) degrees Centigrade is equal to or greater than twenty (20) percent by weight, and the fluid is a liquid at operating conditions.

(132) "In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

(133) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(134) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(135) "In vapor service" shall have the same meaning as "in gas service".

(136) "In ground tank" means a device meeting the definition of "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

(137) "Inactive portion" means that portion of a hazardous waste site or facility which was not operated after November 19, 1980.

(138) "Incinerator" means any enclosed device that:

(a) Uses controlled flame combustion and neither meets the

criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(b) Meets the definition of infrared incinerator or plasma arc incinerator.

(139) "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device or facility because it may cause corrosion or decay of containment materials, or unsuitable for commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(140) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

(141) "Individual generation site" means the contiguous site at or on which one (1) or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one (1) or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(142) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(a) Cement kilns;

(b) Lime kilns;

(c) Aggregate kilns;

(d) Phosphate kilns;

(e) Coke ovens;

(f) Blast furnaces;

(g) Smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);

(h) Titanium dioxide chloride process oxidation reactors;

(i) Methane reforming furnaces;

(j) Pulping liquor recovery furnaces;

(k) Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(l) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least three (3) percent, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of twenty (20) percent as generated; or

(m) Other devices as the cabinet may, after notice and comment, add to this list on the basis of criteria and Section 5 of 401 KAR 30:080.

(143) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(144) "Injection well" means a well into which fluids are injected to achieve subsurface emplacement.

(145) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained hazardous waste or reagents used to treat the hazardous waste.

(146) "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of a hazardous waste management unit including tank systems.

(147) "Interim status" means the designation of a hazardous waste site or facility which was in existence on November 19, 1980, and has submitted a Part A application under 401 KAR Chapter 38 or under 40 C.F.R. Part 270 and is treated as having a permit until final administrative disposition of the application is made.

(148) "Intermittent stream" means a stream or reach of stream that drains a watershed of one (1) square mile or more but does not flow continuously during the calendar year.

(149) "International shipment" means the transportation of

hazardous waste into or out of the jurisdiction of the United States.

(150) "Internal floating roof" means a floating roof that rests or floats on the surface (but not necessarily in complete contact with it) of a hazardous waste being managed in a tank that has a fixed roof.

(151) "Karst terrain" means a type of topography where limestone, dolomite or gypsum is present and is characterized by naturally occurring closed topographic depressions or sinkholes, caves, disrupted surface drainage, and well developed underground solution channels formed by dissolution of these rocks by water moving underground.

(152) "Key personnel" shall have the meaning specified in KRS 224.01-010.

(153) "Lab pack" means any large container equal to or smaller than fifty-five (55) gallons that holds many smaller containers of various content tightly secured with packing material.

(154) "Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infrared (IR) regions of the electromagnetic spectrum. Examples of common lamps include, but is not limited to, incandescent, fluorescent, high pressure sodium, mercury vapor, metal halide, high intensity discharge, and neon lamps.

(155) "Land disposal" shall have the meaning specified in KRS 224.01-010.

(156) "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface. These facilities are disposal facilities if the waste will remain after closure.

(157) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(158) "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(159) "Large quantity handler of universal waste" means a universal waste handler who accumulates 5,000 kilograms or more total universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

(160) "Leachate" means any liquid including any suspended components in the liquid, that has percolated through or drained from waste.

(161) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment system or the presence of a release of hazardous waste, hazardous waste constituents or accumulated liquid in the secondary containment system. Such a system shall employ operational controls (daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment system or the presence of a release of hazardous waste constituents or accumulated liquids into the secondary containment system.

(162) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

(163) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(164) "Liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility.

(165) "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank.

(166) "Local government" means the fiscal court of the county, urban county government, or governing body of an incorporated municipality wherein a hazardous waste landfill or other site or facility for the land disposal of hazardous waste is proposed.

(167) "Major modification" means for hazardous waste sites or facilities, a change in ownership where the cabinet determines that other changes in the permit are necessary as a result of the change in ownership or operational control, area occupied, disposal method, or other significant change in the operation of a waste site or facility. (Note: Minor modifications are described in Section 3 of 401 KAR 38:040).

(168) "Malfunction" means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

(169) "Manifest" shall have the meaning specified in KRS 224.01-010.

(170) "Manifest document number" means the EPA twelve (12) digit identification number assigned to the generator plus a unique, serially increasing, five (5) digit document number assigned to the manifest by the generator for recordkeeping and reporting purposes.

(171) "Maximum organic vapor pressure" means the equilibrium partial pressure exerted by the hazardous waste contained in a tank determined at the temperature equal to either:

(a) The local maximum monthly average temperature as reported by the National Weather Service when the hazardous waste is stored or treated at ambient temperature; or

(b) The highest calendar month average temperature of the hazardous waste when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature.

(172) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(173) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of, and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 C.F.R. Part 146, containment building, corrective action management unit, or unit eligible for a research, development, and demonstration permit under Section 6 of 401 KAR 38:060.

(174) "Monitoring" means the act of systematically inspecting and collecting data on operational parameters or on the quality of the air, soil, groundwater, or surface water.

(175) "Monitoring well" means a well used to obtain water samples for water quality and quantity analysis and groundwater levels.

(176) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(177) "Net working capital" means current assets minus current liabilities.

(178) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

(179) "New facility" means any hazardous waste site or facility that commenced construction after November 19, 1980.

(180) "New tank component" shall have the same meaning as "new tank system."

(181) "New tank system" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation commenced after July 14, 1986; however, for purposes of Section 4(7)(b) of 401 KAR 34:190 and Section 4(7)(b) of 401 KAR 35:190, a new tank system is one for which construction commenced after July 14, 1986.

(182) "No detectable organic emissions" means no escape of organics from a device or system to the atmosphere as determined

by an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal when measured in accordance with the requirements of Method 21 in 40 C.F.R. Part 60, Appendix A, and by no visible openings or defects in the device or system such as rips, tears, or gaps.

(183) "Nonsudden accidental occurrence" means an occurrence that takes place over time and involves continuous or repeated exposure.

(184) "Nonwastewaters" means wastes that do not meet the criteria for wastewaters found in the definition for wastewaters.

(185) "Not detected" means at or below the lower method calibration limit (MCL) in SW-846, Method 8290, Table 1.

(186) "Off-site" means properties noncontiguous to the site.

(187) "On-site" means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

(188) "Onground tank" means a device meeting the definition of tank that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(189) "Open burning" means the combustion of any material or solid waste without:

(a) Control of combustion air to maintain adequate temperature for efficient combustion;

(b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) Control of emission of the gaseous combustion products.

(190) "Open-ended valve or line" means any valve, except pressure relief valves, having one (1) side of the valve seat in contact with process fluid and one (1) side open to the atmosphere, either directly or through open piping.

(191) "Operational plan" means the approved plan of operations filed with the cabinet which describes the method of operation that the permittee will use in the treatment, storage, or disposal of wastes.

(192) "Operator" means any person responsible for overall operation of an on-site or off-site waste facility, including any private contractor conducting operational activities at a federal facility.

(193) "Other site or facility for the land disposal of hazardous waste" means a disposal facility but shall not include a storage facility or a treatment facility.

(194) "Owner" means any person who owns an on-site or off-site waste facility, or any part of a facility.

(195) "Parent corporation" means a corporation which directly owns at least fifty (50) percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(196) "Part A of the application" or "Part A" means the standard forms or format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:090.

(197) "Part B of the application" or "Part B" means the standard format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:090 to 401 KAR 38:210.

(198) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 401 KAR Chapters 34 and 35 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(199) "Perennial stream" means a stream or that part of a stream that flows continuously during all of the calendar year as a result of groundwater discharge or surface run-off. The term does not include "intermittent stream" or "ephemeral stream".

(200) "Permit" means the authorization or other control document issued by the cabinet to implement the requirements of the

waste management administrative regulations. The term permit includes permit-by-rule, registered permit-by-rule, research, development, and demonstration permit, and emergency permit. However, the term permit does not include draft permit or proposed permit.

(201) "Permit by rule" means authorization allowing certain classes of sites or facilities to manage waste consistent with 401 KAR Chapters 30 to 49, without submission of a registration or permit application to the cabinet. Examples of hazardous waste sites or facilities which are permitted by rule include facilities operating under an interim status permit and facilities identified in Section 1 of 401 KAR 38:060.

(202) "Permittee" means any person holding a valid permit issued by the cabinet to manage, treat, store, or dispose of waste.

(203) "Person" shall have the meaning specified in KRS 224.01-010.

(204) "Personnel" or "facility personnel" means all persons who work at or oversee the operations of a waste facility, and whose actions or failure to act may result in noncompliance with the requirements of the waste management administrative regulations.

(205) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(a) Is a new animal drug under FFDCA section 201(w), or

(b) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(c) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this subsection.

(206) "Pile" or "waste pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

(207) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(208) "Point of compliance" means for hazardous waste site and facilities, groundwater monitoring wells located within 250 feet of the waste boundary as approved by the cabinet.

(209) "Point of waste origination" means as follows:

(a) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as identified in 401 KAR Chapter 31.

(b) When the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

(210) "Point of waste treatment" means the point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste.

(211) "Point source" means any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(212) "Pollutant" shall have the same meaning as KRS 224.01-010.

(213) "Polychlorinated biphenyls" or "PCB" means halogenated organic compounds defined in accordance with 40 C.F.R. 761.2 as of July 1989.

(214) "Postclosure care" means the manner in which a facility shall be maintained when it no longer accepts waste for disposal.

(215) "Postclosure monitoring and maintenance" shall have the meaning specified in KRS 224.01-010.

(216) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of Sections 8 to 11 of 401 KAR 34:070 or Sections 8 to 11 of 401 KAR 35:070.

(217) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pres-

sure of the pressure-relief device.

(218) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Section 1 of 401 KAR 32:020 which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(219) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(220) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(221) "Property damage" shall have the meaning given by applicable Kentucky statutes. Property damage does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for property damage.

(222) "Proposed permit" means a document prepared by the cabinet indicating the cabinet's tentative decision to issue or deny, modify, revoke or terminate a permit.

(223) "Publicly owned treatment works" or "POTW" shall have the meaning specified in KRS 224.01-010.

(224) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(225) "Qualified groundwater scientist" means a geologist registered in Kentucky who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields to enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

(226) "Receiving country" means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short-term storage incidental to transportation).

(227) "Recharge zone" means an area supplying the water which enters an underground drinking water source.

(228) "Reclaimed" means a material that is processed to recover a usable product, or that is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(229) "Recovered material" shall have the meaning specified in KRS 224.01-010.

(230) "Recyclable materials" means hazardous wastes that are recycled.

(231) "Recycled" means a material that is used, reused, or reclaimed.

(232) "Recycling" shall have the meaning specified in KRS 224.01-010.

(233) "Regional integrated waste treatment and disposal demonstration facility" shall have the meaning specified in KRS 224.01-010.

(234) "Regulated unit" means hazardous waste land disposal sites or facilities, or portions of existing hazardous waste land disposal sites or facilities that continued to receive waste after January 26, 1983.

(235) "Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34:060 and KRS 224.46-520. For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing KRS 224.46-520 for releases beyond the facility boundary.

(236) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(237) "Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or approved corrective action.

(238) "Representative sample" means a sample of a universe or whole (for example, waste pile, lagoon, or groundwater) which can be expected to exhibit the average properties of the universe or whole.

(239) "Research, development, and demonstration permit" means a permit issued by the cabinet for a hazardous waste treatment facility that utilizes an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 401 KAR Chapters 34 through 36.

(240) "Resource recovery" means the recovery of material or energy from waste.

(241) "Run-off" means any rainwater, leachate, or other liquid that drains overland from any part of a facility.

(242) "Run-on" means any rainwater, leachate, or other liquid that drains overland onto any part of a facility.

(243) "Saturated zone" shall have the same meaning as "zone of saturation".

(244) "Schedule of compliance" means a schedule of remedial measures included in a permit or cabinet order, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with KRS Chapter 224 and 401 KAR Chapters 30 to 49.

(245) "Scrap metal" is bits and pieces of metal parts (for example, bars, turnings, rods, sheets, or wire) or metal pieces that may be combined together with bolts or soldering (for example, radiators, scrap automobiles, or railroad boxcars), which when worn or superfluous can be recycled.

(246) "Secretary" shall have the meaning specified in KRS 224.01-010.

(247) "Sensor" means a device that measures a physical quantity or the change in a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(248) "Separator tank" means a device used for separation of two immiscible liquids.

(249) "Sewage system" shall have the meaning specified in KRS 224.01-010.

(250) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the waste facility or activity.

(251) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant or any other waste having similar characteristics and effects.

(252) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet weight basis.

(253) "Small quantity generator" means a generator who generates more than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month.

(254) "Small quantity handler of universal waste" means a universal waste handler who does not accumulate more than 5,000 kilograms of universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time.

(255) "Solid waste management unit" shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

(256) "Solvent extraction operation" means an operation or

method of separation in which a solid or solution is contacted with a liquid solvent (the two (2) being mutually insoluble) to preferentially dissolve and transfer one (1) or more components into the solvent.

(257) "Sorb" means to either adsorb, absorb, or both.

(258) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(259) "Spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(260) "Spill" means any accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

(261) "Start-up" means the setting in operation of a hazardous waste management unit or control device for any purpose.

(262) "State" means any of the fifty (50) states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Northern Mariana Islands or Guam but does not include any foreign country.

(263) "Steam stripping operation" means a distillation operation in which vaporization of a volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(264) "Storage" shall have the meaning specified in KRS 224.01-010.

(265) "Storage facility" means a facility or part of a facility at which hazardous waste is held for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere. A generator who accumulates his own hazardous wastes in an approved manner for less than ninety (90) days for subsequent transport on-site or off-site is not operating or maintaining a storage facility.

(266) "Storage of hazardous waste" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(267) "Substantial business relationship" means the extent of a business relationship necessary to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the cabinet.

(268) "Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

(269) "Sump" means any pit or reservoir that meets the definition of tank, and those troughs and trenches connected to it, that serves to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile administrative regulations, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(270) "Surface impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(271) "Surge control tank" means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(272) "Tangible net worth" means the tangible assets that remain after deducting liabilities; these assets would not include intangibles such as goodwill and rights to patents or royalties.

(273) "Tank" means a stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonearthen materials (for example, wood, concrete, steel, or plastic) which provide structural support and which does not meet the definition of any other unit.

(274) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and con-

tainment system.

(275) "Termination" shall have the meaning specified in KRS 224.01-010.

(276) "The full amount of the liability coverage to be provided" means the amount of coverage for sudden and nonsudden occurrences required to be provided by the owner or operator, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(277) "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge (see also "incinerator" and "open burning").

(278) "Thermal treatment facility" means a facility or part of a facility which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

(279) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Section 4(3)(b) of 401 KAR 43:020 or Section 4(3)(b) of 401 KAR 43:030.

(280) "Thin film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(281) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which acid is neutralized.

(282) "Transit country" means any foreign country, other than a receiving country, through which a hazardous waste is transported.

(283) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body is a separate transport vehicle.

(284) "Transportation" shall have the meaning specified in KRS 224.01-010.

(285) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(286) "Treatability study" means:

(a) A study in which a hazardous waste is subjected to a treatment process to determine:

1. Whether the waste is amenable to the treatment process;
2. What pretreatment, if any, is required;
3. The optimal process conditions needed to achieve the desired treatment;
4. The efficiency of a treatment process for a specific waste or wastes; or
5. The characteristics and volumes of residuals from a particular treatment process.

(b) For the purpose of 401 KAR 31:010, Section 4(5) and (6), exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(c) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(287) "Treatment" shall have the meaning specified in KRS 224.01-010.

(288) "Treatment facility" means a facility or part of a facility using any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous or less hazardous; safer to transport, store, or dispose of; or amenable for

recovery, amenable for storage, or reduced in volume.

(289) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(290) "Underground drinking water source" means:

- (a) An aquifer supplying drinking water for human consumption; or
- (b) An aquifer in which the groundwater contains less than 10,000 mg/l total dissolved solids.

(291) "UIC well" means an underground injection control well as provided in 40 C.F.R. Part 144.

(292) "Underground injection" means the subsurface placement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

(293) "Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

(294) "Underlying hazardous constituent" means any constituent listed in Section 1 of 401 KAR 37:040, Table Treatment Standards for Hazardous Wastes, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent-specific treatment standards.

(295) "Unfit for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(296) "Universal waste" means any of the following hazardous wastes that are subject to the universal waste requirements of 401 KAR Chapter 43:

- (a) Batteries as described in Section 2 of 401 KAR 43:010;
- (b) Pesticides as described in Section 3 of 401 KAR 43:010;
- (c) Thermostats as described in Section 4 of 401 KAR 43:010;

and

- (d) Spent lamps as described in Section 5 of 401 KAR 43:010.

(297) "Universal waste handler":

(a) Means:

- 1. A generator of universal waste; or
- 2. The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(b) Does not mean:

- 1. A person who treats (except under the provisions of Sections 4(1) or (3) of 401 KAR 43:020 or Sections 4(1) or (3) of 401 KAR 43:030), disposes of, or recycles universal waste; or

- 2. A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(298) "Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

(299) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(300) "Unsaturated zone" shall have the same meaning as "Zone of aeration".

(301) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(302) "Used oil" shall have the same meaning as KRS 224.50-545.

(303) "Used or reused" means a material that is either:

- (a) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one (1) process used as feedstock in another process). However, a material shall not satisfy this condition if distinct components of the material are recovered as separate end

products (as when metals are recovered from metal-containing secondary materials); or

- (b) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(304) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(305) "Vapor recovery system" means that equipment, device, or apparatus capable of collecting vapors and gases discharged from a storage tank, and a vapor processing system capable of affecting such vapors and gases so as to prevent their emission into the atmosphere.

(306) "Vapor-mounted seal" means a foam-filled primary seal mounted continuously around the circumference of the tank so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.

(307) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (work losses) or by natural means such as diurnal temperature changes.

(308) "Vessel" means any watercraft used or capable of being used as a means of transportation on the water.

(309) "Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement using Method 25D or by knowledge of the waste in accordance with the requirements of Section 4 of 401 KAR 35:281.

(310) "Washout" means the carrying away of waste by waters as a result of flooding.

(311) "Waste" shall have the meaning specified in KRS 224.01-010.

(312) "Waste boundary" means the outermost perimeter of the waste (projected in the horizontal plane) as it would exist at completion of the disposal activity.

(313) "Waste determination" means performing all applicable procedures in accordance with the requirements of Section 4 of 401 KAR 35:281 to determine whether a hazardous waste meets standards specified in 401 KAR Chapter 35. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 4 of 401 KAR 35:281 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; determining the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

(314) "Waste pile" shall have the same meaning as "pile".

(315) "Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010). A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification."

(316) "Wastewaters" means wastes that contain less than one (1) percent by weight total organic carbon (TOC) and less than one (1) percent by weight total suspended solids (TSS), with the following exceptions:

(a) F001, F002, F003, F004, F005, wastewaters are solvent-water mixtures that contain less than one (1) percent by weight TOC or less than one (1) percent by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 1 of 401 KAR 37:040 in Table Treatment Standards for Hazardous Waste;

(b) K011, K013, K014 wastewaters contain less than five (5) percent by weight TOC and less than one (1) percent by weight TSS, as generated; and

(c) K103 and K104 wastewaters contain less than four (4) percent by weight TOC and less than one (1) percent by weight TSS.

(317) "Wastewater treatment unit" means a device that:

(a) Is part of a wastewater treatment facility that is subject to administrative regulation under either section 402 or 307(b) of the CWA;

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 401 KAR 31:010, Section 3; or generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 401 KAR 31:010, Section 3; or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section 3 of 401 KAR 31:010; and

(c) Meets the definition of tank or tank system in this administrative regulation.

(318) "Water" or "waters of the Commonwealth" shall have the meaning specified in KRS 224.01-010.

(319) "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

(320) "Well" means any shaft or pit dug or bored into the earth, generally of cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(321) "Wetlands" means land that has a predominance of hydric soils and is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

(322) "Zone of aeration" means that region of the soil or rock between the land surface and the nearest saturated zone in which the interstices are occupied partially by air.

(323) "Zone of engineering control" means an area under the control of the owner or operator that upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to waters of the Commonwealth.

(324) "Zone of saturation" means that part of the earth's crust containing groundwater in which all voids, large and small, are filled with liquid.

Section 2. Acronyms and Abbreviations. Unless otherwise specifically indicated by context, acronyms and abbreviations used in 401 KAR Chapter 31 shall have the meaning as identified in Table 1 of this administrative regulation.

Am.	Amended
C	Corrosive waste
CAA	Clean Air Act, as amended
C.F.R.	Code of Federal Regulations
cm	Centimeter
cm ²	Centimeter squared
CO	Carbon monoxide
CO ₂	Carbon dioxide
CWA	Clean Water Act, as amended
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DOT	United States Department of Transportation
DRE	Destruction and removal efficiency
E	Explosive waste
eff.	Effective
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIA	Federal Insurance Administration
FR	Federal Register

H	Acutely hazardous waste
ha	Hectare
HTMR	High temperature metals recovery
HSWA	Hazardous and Solid Waste Amendments of 1994
I	Ignitable waste
KAR	Kentucky Administrative Regulation
kg	Kilogram
KPDES	Kentucky Pollution Discharge Elimination System
KRS	Kentucky Revised Statute
Ky.R.	Administrative Register of Kentucky
l	Liter
LC	Lethal concentration
LD	Lethal dose
ml	Milliliter
mm	Millimeter
N	Normal
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant and Discharge Elimination System
PCB	Polychlorinated biphenyl
µCi/l	Picocuries per liter
PHC	Principal hazardous constituent
Permit	Permitted principal organic hazardous constituent
PM	Particulate matter
POHC	Principal organic hazardous constituent
ppm	parts per million
Trial	Trial burn principal organic hazardous constituent
POTW	Publicly owned treatment works
PSD	Prevention of significant deterioration
psi	Pounds per square inch
psig	Pounds per square inch gauge
R	Reactive waste
RCRA	Resource Conservation and Recovery Act, as amended
SDWA	Safe Drinking Water Act, as amended
SEC	Securities and Exchange Commission
SIC	Standard Industrial Classification Code
SPCC	Spill Prevention, Control, and Countermeasures Plan
T	Toxic waste
UIC	Underground Injection Control
UICP	Underground Injection Control Program
U.S.C.	United States Code
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USPS	United States Postal Service

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: January 3, 2007 at 2 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:010. General provisions for permitting.

RELATES TO: KRS **Subchapters** 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 270 Subpart A
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530[40 C.F.R. 270 Subpart A]

VOLUME 33, NUMBER 12 – JUNE 1, 2007

NECESSITY, FUNCTION, AND CONFORMITY: ~~[This administrative regulation implements provisions of] KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations establishing standards for hazardous waste permitting. This administrative regulation establishes the general provisions for storage, treatment, recycling, or disposal of hazardous waste by establishing general provisions for hazardous waste permitting.~~ ~~[To implement provisions of KRS 224.46-520 and 224.46-530 to establish general provisions for hazardous waste permitting.]~~

Section 1. Scope of the Permit Requirements. (1) The subject matter shall be governed by 40 C.F.R. 270.1, effective July 1, 2005.

(2) In addition to the exclusions listed in 40 C.F.R. 270.1, handlers and transporters of universal waste who treat hazardous waste on site in accordance with 401 KAR 32:030, Section 6, shall ~~not before~~ ~~not~~ required to obtain a hazardous waste site or facility permit.

(3) The citation to "Subtitle C of the Solid Waste Disposal Act [SWDA] as amended by the [of] RCRA" in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS Subchapter 224.46.

(4) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-510.

(5) The citation to Section 3005(e) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

(6) The citation to Section 3008(h) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-530.

(7) The requirements of 40 C.F.R. 270.1(c)(5)(ii)(A) shall be replaced with the following: "The petition shall include data demonstrating that closure by removal or decontamination standards were met, or it shall demonstrate that the unit closed under requirements that met or exceeded the applicable 401 KAR Chapter 34 closure-by-removal standard."

Section 2. Considerations of Federal Law. Permits shall be issued in a manner and shall contain conditions consistent with requirements of applicable federal laws. These laws may include:

(1) 16 U.S.C. 1273-1287 (The Wild and Scenic Rivers Act). 16 U.S.C. 1278, Section 7 of the Act prohibits the assisting by license or otherwise the construction of any water resources project that ~~may~~ ~~would~~ have a direct, adverse effect on the values for which a national wild and scenic river was established.

(2) 16 U.S.C. 470 et seq. (The National Historic Preservation Act, as amended through 1980). 16 U.S.C. 470f, Section 106 of the Act and implementing regulations (36 C.F.R. Part 800) require the adoption of measures before issuing a license, ~~if~~ ~~when~~ feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements ~~shall~~ ~~are~~ ~~to~~ be implemented in cooperation with State Historic Preservation Officers and upon notice to, and ~~if~~ ~~when~~ appropriate, in consultation with the Advisory Council on Historic Preservation.

(3) 16 U.S.C. 1531 et seq. The Endangered Species Act, as amended through 1988). 16 U.S.C. 1536, Section 7 of the Act and implementing regulations (50 C.F.R. Part 402) require that in consultation with the Secretary of the Interior or Commerce, any action authorized shall ~~not~~ ~~be~~ ~~is~~ ~~not~~ likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

(4) 16 U.S.C. 661 et seq. (The Fish and Wildlife Coordination Act of 1958, as amended) requires that, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion or other control or modification of any body of water, the permitting agency shall consult with the appropriate state agency exercising jurisdiction over wildlife resources to conserve those resources.

Section 3. Effect of a Permit. (1) The subject matter shall be governed by 40 C.F.R. 270.4, effective July 1, 2005.

(2) The citation to Subtitle C of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS Chapter 224.

Section 4. Prohibition of Use of Unpermitted Facility. (1) Restrictions. A [Ne] person shall not deliver hazardous waste to a facility for treatment, storage, or disposal, unless the owner or operator has:

(a) Registered with the cabinet as an existing hazardous waste facility in operation on or before November 19, 1980; ~~or~~

(b) Qualified for interim status in accordance with 401 KAR 38:020, Section 1; or

(c) Been granted a hazardous waste site or facility permit by the cabinet.

(2) Permit required. A [Ne] person shall not engage in the storage, treatment, or disposal of hazardous waste without first obtaining construction or operation permits from the cabinet as specified in KRS 224.46-520(1).

(3) Issuance of a federal permit to own or operate a hazardous waste site or facility shall not relieve the owner or operator of the responsibility to comply with the requirements of 401 KAR Chapter 38 ~~[this chapter]~~.

Section 5. Noncompliance and Program Reporting by the Cabinet. The subject matter shall be governed by 40 C.F.R. 270.5, effective July 1, 2005.

Section 6. References. The subject matter shall be governed by 40 C.F.R. 270.6, effective July 1, 2005.

~~[Section 1. Scope of the Permit Requirements. (1) The hazardous waste permit program has separate additional administrative regulations that contain technical requirements. These separate administrative regulations are used by permit issuing authorities to determine what requirements shall be placed in permits if they are issued. These separate administrative regulations are located in 401 KAR 30:020 and Chapters 34 and 35.~~

(2) KRS 224.46-520 requires a permit for the "treatment," "storage," and "disposal" of any "hazardous waste" as identified or listed in 401 KAR Chapter 31. The terms "treatment," "storage," "disposal" and "hazardous waste" are defined in 401 KAR 38:006. Owners or operators of hazardous waste management units shall have permits during the active life (including the closure period) of the unit. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure (according to Section 6 of 401 KAR 35:070) after January 26, 1983, shall have postclosure permits, unless they demonstrate closure by removal as provided under paragraphs (e) and (f) of this subsection. If a postclosure permit is required, the permit shall address applicable 401 KAR Chapter 34 groundwater monitoring, unsaturated zone monitoring, corrective action and postclosure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a postclosure permit under this section.

(a) Specific inclusions. Owners or operators of certain facilities require hazardous waste site or facility permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste site or facility permits are required for:

1. Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store, or dispose of hazardous waste (see Section 5 of 401 KAR 38:060). However, the owner or operator with a UIC permit issued by the cabinet under an approved or promulgated UIC program, or by EPA, shall be deemed to have a permit for the injection well itself if they comply with the requirements of Section 1(2) of 401 KAR 38:060 (permit by rule for injection wells).

2. Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit or KPDES permit when the cabinet program is approved by EPA. However, owners or operators of a publicly owned treatment works receiving hazardous waste shall be deemed to have a permit for that waste if they comply with the applicable requirements of Section 1(3) of 401 KAR 38:060 (permit by rule for POTW's).

3. Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment, or storage facilities associated with an ocean disposal operation. However, owners or operators shall be deemed to have a permit for ocean disposal for the barge or vessel itself if they comply with the requirements of Section 1(1) of 401 KAR 38:060 (permit by rule for ocean disposal barges and vessels).

(b) Specific exclusions. The following persons are among those who are not required to obtain a hazardous waste site or facility permit:

1. Generators who accumulate hazardous waste on site for less than the time periods provided in Section 5 or 6 of 401 KAR 32:030 or in accordance with the standards in Section 5(6) of 401 KAR 31:010.

2. Farmers who dispose of hazardous waste pesticides from their own use as provided in Section 10 of 401 KAR 32:050.

3. Persons who own or operate facilities solely for the treatment, storage, or disposal of hazardous waste excluded from administrative regulations under this chapter by Section 4 of 401 KAR 31:010 except as provided in 401 KAR 38:060.

4. Owners or operators of totally enclosed treatment facilities as defined in 401 KAR 38:005.

5. Owners or operators of elementary neutralization units or of waste water treatment units as defined in 401 KAR 38:005 except as provided in Section 1(4) and (5) of 401 KAR 38:060.

6. Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of Section 1 of 401 KAR 32:030, at a transfer facility for a period of ten (10) days or less.

7. Persons adding absorbent material to waste in a container (as defined in Section 1 of 401 KAR 38:005) and persons adding waste to absorbent material in a container provided that these actions occur at the time waste is first placed in the container; and Section 8(2) of 401 KAR 34:020, and Sections 2 and 3 of 401 KAR 34:180 are complied with.

8. Universal waste handlers and universal waste transporters managing the wastes listed below. These handlers are subject to regulation under 401 KAR Chapter 43, when handling the below listed universal wastes:

- a. Batteries as described in Section 2 of 401 KAR 43:010;
- b. Pesticides as described in Section 3 of 401 KAR 43:010;
- c. Thermostats as described in Section 4 of 401 KAR 43:010;

and

d. Spent mercury containing lamps as described in Section 5 of 401 KAR 43:010.

9. Generators who treat hazardous waste on site in accordance with Section 6 of 401 KAR 32:030.

(c) Further exclusions.

1. A person is not required to obtain a hazardous waste permit for treatment or containment activities taken during immediate response to any of the following situations:

- a. A discharge of a hazardous waste;
- b. An imminent and substantial threat of a discharge of hazardous waste;
- c. A discharge of a material which, when discharged, becomes a hazardous waste.

2. Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this chapter for those activities.

(d) Permits for less than an entire facility. The cabinet may issue or deny a permit for one (1) or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

(e) Closure by removal. Owners or operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under 401 KAR Chapter 35 standards shall obtain a postclosure permit unless they can demonstrate to the cabinet that the closure met the standards for closure by removal or decontamination in Section 6 of 401 KAR 34:200, Section 8(5) of 401 KAR 34:220, or Section 8 of 401 KAR 34:210, respectively. The demonstration may be made in the following ways:

1. If the owner or operator has submitted a Part B application for a postclosure permit, the owner or operator may request a determination based on information contained in the application that 401 KAR Chapter 34 closure by removal standards were met. If the cabinet believes that 401 KAR Chapter 34 standards were met, it shall notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in paragraph (f) of this subsection.

2. If the owner or operator has not submitted a Part B application for a postclosure permit, the owner or operator may petition the cabinet for a determination that a postclosure permit is not required because the closure met the applicable 401 KAR Chapter 34 closure standards.

a. The petition shall include data demonstrating that closure by removal or decontamination standards were met, or it shall demonstrate that the unit closed under requirements that met or exceeded the applicable 401 KAR Chapter 34 closure by removal standard.

b. The cabinet shall approve or deny the petition according to the procedures outlined in paragraph (f) of this subsection.

(f) Procedures for closure equivalency determination.

1. If a facility owner or operator seeks an equivalency demonstration under paragraph (e) of this subsection, the cabinet shall provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner or operator within thirty (30) days from the date of the notice. The cabinet shall also, in response to a request or at its own discretion, hold a public hearing whenever such a hearing might clarify one (1) or more issues concerning the equivalence of the 401 KAR Chapter 35 closure to a 401 KAR Chapter 34 closure. The cabinet shall give public notice of the hearing at least thirty (30) days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two (2) notices may be combined.)

2. The cabinet shall determine whether the 401 KAR Chapter 35 closure met 401 KAR Chapter 34 closure by removal or decontamination requirements within ninety (90) days of its receipt of the petition. If the cabinet finds that the closure did not meet the applicable 401 KAR Chapter 34 standards, it shall provide the owner or operator with a written statement of the reasons why the closure failed to meet 401 KAR Chapter 34 standards. The owner or operator may submit additional information in support of an equivalency demonstration within thirty (30) days after receiving such written statement. The cabinet shall review any additional information submitted and make a final determination within sixty (60) days.

3. If the cabinet determines that the facility did not close in accordance with 401 KAR Chapter 34 closure by removal standards, the facility is subject to postclosure permitting requirements.

Section 2. Considerations of Federal Law. Permits shall be issued in a manner and shall contain conditions consistent with requirements of applicable federal laws. These laws may include:

(1) 16 U.S.C. 1273-1287 (The Wild and Scenic Rivers Act); Section 7 of the Act prohibits the assisting by license or otherwise the construction of any water resources project that would have a direct, adverse effect on the values for which a national wild and scenic river was established.

(2) 16 U.S.C. 470 (The National Historic Preservation Act of 1966, as amended), Section 106 of the Act and implementing regulations (36 C.F.R. Part 800) require the adoption measures before issuing a license, when feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

(3) 16 U.S.C. 1531 (The Endangered Species Act, as amended), Section 7 of the Act and implementing regulations (50 C.F.R. Part 402) require that in consultation with the Secretary of the Interior or Commerce, any action authorized is not likely to jeopardize the continued existence of any endangered or threat-

ened species or adversely affect its critical habitat.

(4) 16 U.S.C. 661 et seq., (The Fish and Wildlife Coordination Act of 1958, as amended) requires that, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion or other control or modification of any body of water, the permitting agency shall consult with the appropriate state agency exercising jurisdiction over wildlife resources to conserve those resources.

Section 3. Effect of a Permit. (1) Compliance with a hazardous waste permit during its term constitutes compliance with KRS Chapter 224 for purposes of enforcement except for those requirements not included in the permit which:

(a) Become effective by statute;

(b) Are promulgated under 401 KAR Chapter 37 restricting the placement of hazardous wastes in or on the land;

(c) Are promulgated under 401 KAR Chapter 34 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, COA programs, monitoring, action leakage rates and response action plans, and shall be implemented through the procedures of this chapter. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in 401 KAR 38:040 and in 401 KAR Chapter 40, or the permit may be modified upon the request of the permittee as set forth in 401 KAR 38:040; or

(d) Are promulgated under 401 KAR 35:275, 35:280, or 35:281.

(2) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(3) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local laws or administrative regulations.

Section 4. Prohibition of Use of Unpermitted Facility. (1) Restrictions. No person shall deliver hazardous waste to a facility for treatment, storage, or disposal unless the owner or operator has:

(a) Registered with the cabinet as an existing hazardous waste facility in operation on or before November 19, 1980; or

(b) Qualified for interim status in accordance with Section 1(1) of 401 KAR 38:020; or

(c) Been granted a hazardous waste site or facility permit by the cabinet.

(2) Permit required. No person shall engage in the storage, treatment, or disposal of hazardous waste without first obtaining construction or operation permits from the cabinet as specified in KRS 224.46-520(1).

(3) Issuance of a federal permit to own or operate a hazardous waste site or facility shall not relieve the owner or operator of the responsibility to comply with the requirements of this chapter.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:020. Interim status provisions.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 270 Subpart G

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270 Subpart G~~]

NECESSITY, FUNCTION, AND CONFORMITY: [~~This administrative regulation implements provisions of~~ KRS 224.46-520 ~~requires the Environmental and Public Protection Cabinet to~~

~~promulgate administrative regulations establishing standards for waste permitting. This administrative regulation establishes~~[~~by establishing~~] ~~permitting standards for interim status facilities. [This administrative regulation is equivalent to the corresponding federal regulations except the text of the federal regulations referenced in this administrative regulation includes dates that occurred before the effective date of the incorporation of those requirements into this administrative regulation. Such dates shall not be construed as creating a retroactive right or obligation under the Kentucky Hazardous Waste Regulations when that right or obligation did not exist in this regulation prior to the date the federal regulations were referenced. If a right or obligation existed under federal regulations based on a date in federal regulations and there is a period from the date cited in the incorporated text until the date they initially took effect in this administrative regulation, nothing in this regulation shall contravene or countermand the legal application of the federal regulation for that period.] This administrative regulation differs from the corresponding federal regulation in Section 8 of this administrative~~[~~administrative~~] ~~regulation, which has Kentucky-specific information regarding standards to control metal emissions. [To implement provisions of KRS 224.46-520 and to establish permitting standards for interim status facilities.]~~

Section 1. Qualifying for Interim Status. (1) The subject matter shall be governed by 40 C.F.R. 270.70, effective July 1, 2005.

(2) The citation to Section 3010(a) of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-520.

Section 2. Operation During Interim Status. The subject matter shall be governed by 40 C.F.R. 270.71, effective July 1, 2005.

Section 3. Changes During Interim Status. (1) The subject matter shall be governed by 40 C.F.R. 270.72, effective July 1, 2005.

(2) The citation to Section 3004 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS Chapter 224.

Section 4. Termination of Interim Status. The subject matter shall be governed by 40 C.F.R. 270.73, effective July 1, 2005.

Section 5. Effective Dates. (1) Dates included in the federal regulations referenced in this administrative regulation that occurred before the effective date of this administrative regulation shall not be construed as creating a retroactive right or obligation under the Kentucky hazardous waste administrative regulations if that right or obligation did not exist in this administrative regulation prior to the date the federal regulations were referenced.

(2) If a right or obligation existed under federal regulations based on a date in federal regulations, and there is a period from the date cited in the text until the date the requirements initially became effective in this administrative regulation, this administrative regulation shall not contravene or countermand the legal application of the federal regulation for that period.

[~~Section 1. Qualifying for Interim Status. (1) Any person who owns or operates an "existing hazardous waste management facility" or a hazardous waste site or facility in existence on the effective date of statutory or regulatory amendments under RCRA that render the facility subject to the requirements to have a RCRA permit shall have interim status and shall be treated as having been issued a permit to the extent he has:~~

~~(a) Complied with the requirements of KRS 224.46-520 pertaining to notification of an existing hazardous waste activity; and~~
~~(b) Complied with the requirements of 401 KAR 38:070 governing submission of Part A applications.~~

~~(2) When the cabinet determines on examination or reexamination of a Part A application (or its equivalent, Registration of Intent to Apply for a Permit) that it fails to meet the standards of these administrative regulations, it may notify the owner or operator that the application is deficient and that the owner or operator is therefore not entitled to interim status. The owner or operator shall~~

then be subject to enforcement procedures for operating without a permit.

(3) Subsection (1) of this section shall not apply to any facility which has been previously denied a permit or if authority to operate the facility under 401 KAR Chapters 30 to 39 and KRS Chapter 224 has been previously terminated.

Section 2. Operation During Interim Status. (1) During the interim status period the facility, except as provided in Section 3 of this administrative regulation, shall not:

(a) Treat, store or dispose of hazardous waste not specified in Part A of the permit application (or its equivalent, Registration of Intent to Apply for a Permit);

(b) Employ processes not specified in Part A of the permit application (or its equivalent, Registration of Intent to Apply for a Permit); or

(c) Exceed the design capacities specified in Part A of the permit application (or its equivalent, Registration of Intent to Apply for a Permit).

(2) During interim status, owners or operators shall comply with the interim status standards in 401 KAR Chapter 35.

Section 3. Changes During Interim Status. (1) Except as provided in subsection (2) of this section, the owner or operator of an interim status facility may make the following changes at the facility:

(a) Treatment, storage, or disposal of new hazardous wastes not previously identified in Part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification) if the owner or operator submits a revised Part A permit application prior to the treatment, storage, or disposal;

(b) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised Part A permit application prior to a change (along with a justification explaining the need for the change) and the cabinet approves the changes because:

1. There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities; or

2. The change is necessary to comply with a federal, state, or local requirement.

(c) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised Part A permit application prior to such change (along with a justification explaining the need for the change) and the cabinet approves the change because:

1. The change is necessary to prevent a threat to human health and the environment because of an emergency situation; or

2. The change is necessary to comply with a federal, state, or local requirement.

(d) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than ninety (90) days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator shall comply with the requirements of 401 KAR 35:080 to 35:130 until the new owner or operator has demonstrated to the cabinet that he is complying with the requirements of that chapter. The new owner or operator shall demonstrate compliance with 401 KAR 35:080 to 35:130 requirements within six (6) months of the date of the change in ownership or operational control of the facility. Upon demonstration to the cabinet by the new owner or operator of compliance with 401 KAR 35:080 to 35:130, the cabinet shall notify the old owner or operator in writing that he no longer needs to comply with 401 KAR 35:080 through 35:130 as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(e) Changes made in accordance with an interim status corrective action order issued by EPA under section 3008(h) of RCRA or other federal authority, by the cabinet, or by a court in a judicial action brought by EPA or by the cabinet. Changes under this subsection are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facil-

ity.

(f) Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised Part A permit application on or before the date on which the unit becomes subject to the new requirements.

(2) Except as specifically allowed under this subsection, changes listed under subsection (1) of this section may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty (50) percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(a) Changes made solely for the purposes of complying with the requirements of Section 4 of 401 KAR 35:190 for tanks and ancillary equipment.

(b) If necessary to comply with federal, state, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of the replacement surface impoundments that satisfy the standards of Section 3004(e) of RCRA.

(c) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of this administrative regulation establishing the new listing or identification.

(d) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(e) Changes necessary to comply with an interim status corrective action order issued by EPA under section 3008(h) of RCRA or other federal authority, by the cabinet, or by a court in a judicial proceeding brought by EPA or the cabinet, provided that the changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(f) Changes to treat or store, in tanks, containers, drip pads, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by 401 KAR Chapter 37 or KRS Chapter 224, provided that the changes are made solely for the purpose of complying with 401 KAR Chapter 37 or KRS Chapter 224.

(g) Addition of newly regulated units under subsection (1)(f) of this section.

Section 4. Termination of Interim Status. Interim status terminates when:

(1) Final administrative disposition of a permit application is made; or

(2) Interim status is terminated as provided in Section 4 of 401 KAR 38:040.

(3) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, or November 8, 1985, unless:

(a) The owner or operator submits a Part B application for a permit for the facility prior to that date; and

(b) The owner or operator certifies that the facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(4) For owners or operators of each land disposal facility which is in existence on November 8, 1984 or the date applicable amendments are made to 401 KAR Chapters 30 to 39 which render the facility subject to the requirements in 401 KAR Chapters 30 to 39 and which is granted interim status, twelve (12) months after the date on which the facility first becomes subject to the permit requirement unless the owner or operator of the facility:

(a) Submits a Part B application for a permit for the facility before the date twelve (12) months after the date on which the facility first becomes subject to the permit requirements; and

(b) Certifies that the facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(5) For owners or operators of any land disposal unit that is granted authority to operate under Section 3(1)(a), (b), and (c) of this administrative regulation, on the date twelve (12) months after the effective date of the requirement, unless the owner or operator certifies that the unit is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

~~(6) For owners or operators of each incinerator facility which has achieved interim status prior to November 8, 1989, interim status terminates on November 8, 1989, unless the owner or operator of the facility submits a Part B application for a permit for an incinerator facility by November 8, 1986.~~

~~(7) For owners or operators of any facility (other than a land disposal or an incinerator facility) which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator of the facility submits a Part B application for a permit for the facility by November 8, 1988.~~

~~Section 5. Deadlines for Submission of Part B of the Application. All hazardous waste sites or facilities which have submitted Part A of the application or its equivalent shall be required to submit Part B of the application within six (6) months of the cabinet's decision to require the submittal, according to Section 2(4) of 401 KAR 38:070. The cabinet may base its decision to require Part B of the application upon receiving Phase II or final authorization from the EPA. However, in accordance with KRS 224.46-520(1), the cabinet may require submission of Part B of the application at any time.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:025. Permit review and determination timetables.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.50

STATUTORY AUTHORITY: KRS 224.10-220, 224.46-520

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations establishing standards for waste permitting[Chapter 224 requires the cabinet to adopt administrative regulations for the management, processing, and disposal of wastes]. KRS 224.40-305 requires persons who establish, construct, operate, maintain or permit the use of a waste site or facility to obtain a permit. [This chapter establishes the permitting standards for hazardous waste sites or facilities.] KRS 224.10-220 requires the cabinet to establish timetables for the review and determination of permit applications. This administrative regulation establishes[sets forth] timetables for the review and determination of hazardous waste permit applications.

Section 1. Submittal of Permit Applications and Registrations.

(1) The official date of receipt for documents associated with a hazardous waste permit shall be the date the document is stamped received by the Division of Waste Management.

(2) The applicant for a hazardous waste permit shall have the burden of establishing that the application is in compliance with all applicable requirements of KRS Chapter 224 and 401 KAR Chapters 30 to 39.

Section 2. Timetables for Hazardous Waste Permit Review and Determination. (1) If a Part A application is required by[under] KRS Chapter 224 and 401 KAR Chapters 30 to 39, the applicant shall submit that application at least forty-five (45) days prior to submitting any of the applications set forth in subsection (2) of this section.

(2) All hazardous waste permit applications shall be reviewed and a determination made to issue or deny the permit within the following timetables:

(a) Part B Applications for [New] hazardous waste permits for storage in containers or tanks only: 180 calendar days;[-]

(b) Part B Applications for [New] hazardous waste permits for storage and treatment in containers or tanks: 365 calendar days;[-]

(c) Part B Applications for [New] hazardous waste incinerators: 365 calendar days;[-]

(d) Part B Applications for facilities with land-based[landbased] units (surface impoundments, waste piles, land treatment units, landfills) and other miscellaneous units: 365 calendar days;[-]

(e) Application review for Class III [major] modifications to a hazardous waste permit: 365 calendar days;[-]

(f) Class I and Class II [Minor] modifications to a hazardous waste permit requiring approval: ninety (90) calendar days;[-]

(g) Closure plan with groundwater monitoring: 365 calendar days;[-]

(h) Closure plan without groundwater monitoring: 180 calendar days; and[-]

(i) [Facilities that gain interim status through federal regulations published after the effective date of this administrative regulation shall negotiate a schedule based on the procedures necessary to secure a complete review of the permit application.

(j) Applications for renewals shall be reviewed and a determination made to issue or deny the permit within the timetables identified in paragraphs (a) to (d) of this subsection for the applica-
ble[that] type of facility.

(3) The timetables specified in subsections (1) and (2) of this section may be extended to a time to which the cabinet and the applicant both agree, at the initiative of either the cabinet or the applicant. The purpose and period of the extension shall be in writing and, if agreed to, shall be signed by both the cabinet and the applicant. The agreement to extend the timetable shall become part of the cabinet's permit file.

(4) If a hazardous waste permit application requires more than one (1) type of permit action as set forth in subsection (2) of this section, then the review time for each permit action shall apply and run consecutively when computing the total review time for the issuance or denial of the permit.

Section 3. Timetable Exclusions. The time periods specified in Section 2 of this administrative regulation shall not run during the following intervals:

(1) From the date the cabinet mails or hand delivers a notice of deficiency to an applicant until the date the Division of Waste Management stamps as received a complete response to the deficiencies.

(a)1. If a notice of deficiency is sent to an applicant, the applicant shall have forty-five (45) calendar days to respond to the notice of deficiency.

2. The forty-five (45) day time period may be extended by agreement between the cabinet and the applicant.

(b) Failure to respond to a notice of deficiency within the specified time shall be grounds for denial of the permit;

(2) Sixty (60) days from the date of any public hearing or meeting on the application to allow the cabinet time to consider public comments;

(3) From the date the cabinet submits an application to U.S. EPA for overview until the date the cabinet receives U.S. EPA's comments;

(4) From the date a permit application is subject to any adjudicatory process that prevents the cabinet from making a determination to the date all administrative or judicial hearings are final and all parties are in compliance with all final orders resulting from those hearings; and

(5) If a governing body holds a public hearing pursuant to KRS 224.40-310(7), sixty (60) days from the date of publication of the public notice on the hearing.

Section 4. Timetable Extensions. (1) If two (2) or more permits for a facility, site, source, construction project, or other entity are required from the cabinet, the cabinet may coordinate the issuance of the permits, establishing different review and action times that shall be accomplished by the cabinet or applicant.

(2) If the permits are coordinated, the cabinet shall so notify the

applicant and indicate the time frames under which the intermediate actions and final permit actions shall be accomplished.

(3) The established time frame for final action shall not exceed the last date for action required by ~~[that is provided for under]~~ applicable statutes and administrative regulations, based on all applications being considered and their filing dates.

[Section 5. Applicability Dates. (1) The provisions of this administrative regulation shall apply to applications received after the effective date of this administrative regulation.

(2)(a) The provisions of this administrative regulation shall not apply to applications pending on the effective date of this administrative regulation unless, within ninety (90) days of the effective date of this administrative regulation, the applicant submits written notification to the cabinet that the applicant desires to have the application subject to this administrative regulation.

(b) If the applicant fails to notify the cabinet in accordance with paragraph (a) of this subsection, the application shall not be subject to the provisions of this administrative regulation.

(c) Applications for which the cabinet receives written notice in accordance with the provisions of paragraph (a) of this subsection shall be subject to all provisions of this administrative regulation beginning on the date the cabinet receives the notice provided for in paragraph (a) of this subsection.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 38:030. Conditions applicable to all permits.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270 Subpart C

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, ~~40 C.F.R. 270 Subpart C]~~

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste [224.40-305 and 224.46-520 require any person who treats, stores, recycles or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities]. [An overview of the permit program is found in the Necessity and Function of 401 KAR 38:010.] This administrative regulation establishes the conditions applicable to all waste permits required by KRS 224.46-520 [permits]. This administrative regulation differs from the corresponding federal regulations by requiring compliance with the statutory provision [implementing the statutory requirement] for immediate reporting as established in KRS 224.01-400 as opposed to the ~~[C.F.R.-provided]~~ twenty-four (24) hour timeframe as established in 40 C.F.R. 270(30)(l)(6).

Section 1. Conditions Applicable to All Permits. (1) Except as provided in subsections (2) to (4) of this section, the subject matter shall be governed by 40 C.F.R. 270.30 except 270.30(l)(6), (l)(9), [270.30(l)(9)] and (m), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) An annual report shall [must] be submitted covering facility activities during the previous calendar year as required by ~~(see)~~ 401 KAR 34:050, Section 6]]].

(3) The cabinet may require the permittee to establish and maintain an information repository ~~[at any time]~~, based on the factors established [set forth] in 401 KAR 38:050, Section 16(2). The information repository shall[will] be governed by the requirements

~~in provisions of 401 KAR 38:050, Section 16(3) through (6).~~

(4) All permits issued by the cabinet shall[will] be subject to any future statutory or regulatory changes whose purpose is the protection of the health and welfare of the citizens of the Commonwealth or their environment.

(5) Immediate reporting.

(a) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within two (2) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances.

(b) The written submission shall contain:

1. A description of the noncompliance and its cause;

2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

3. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(c) The following shall be included as information which shall be reported orally within two (2) hours:

1. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies, including both surface water and groundwater used for public drinking water supply;

2. Any information of a release or discharge of hazardous waste, or of a fire or explosion from a hazardous waste site or facility, which could threaten the environment or human health outside the facility.

(d) The description of the occurrence and its cause shall include:

1. The name, address, and telephone number of the owner or operator;

2. The name, address, and telephone number of the facility;

3. The date, time and type of incident;

4. The name and quantity of each material involved;

5. The extent of injuries, if any;

6. An assessment of actual or potential hazards to the environment and human health outside the facility, if applicable; and

7. The estimated quantity and disposition of recovered material that resulted from the incident.

(e) The cabinet may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days.

Section 2. Requirements for Recording and Reporting of Monitoring Results. The subject matter shall be governed by 40 C.F.R. 270.31, effective July 1, 2005.

Section 3. Establishing Permit Conditions. (1) The subject matter shall be governed by 40 C.F.R. 270.32, effective July 1, 2005.

(2) The citation to Section 3005 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-530.

(3) The citation to "the act" in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS Chapter 224.

Section 4. Schedules of Compliance. The subject matter shall be governed by 40 C.F.R. 270.33, effective July 1, 2005.

[Section 1. Conditions Applicable to All Permits. All conditions applicable to all permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these administrative regulations must be given in the permit.

(1) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the appropriate Kentucky Revised Statute and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. However, the permittee need not comply with the conditions of this

permit to the extent and for the duration such noncompliance is authorized in an emergency permit (see Section 4 of 401 KAR 38:010).

(2) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(3) Duty to halt or reduce activity. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to mitigate. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health and the environment.

(5) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a modification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) Duty to provide information. The permittee shall furnish the cabinet, within a reasonable time, any information which the cabinet may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the cabinet upon request copies of records required to be kept by this permit.

(9) Inspection and entry. The permittee shall allow the cabinet or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy at reasonable times any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facility's equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Kentucky Revised Statutes, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by Section 4(2)(i) of 401 KAR 34:050, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification or application. This period may be extended by request of the cabinet at any time. In addition, the permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the postclosure care period as well.

(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed;

4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of such analyses.

(11) Signatory requirement. All applications, reports, or information submitted to the cabinet shall be signed and certified (see Section 7 of 401 KAR 38:070).

(12) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the cabinet as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give advance notice to the cabinet of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. In addition, for a new hazardous waste site or facility, the permittee may not commence treatment, storage, or disposal of hazardous waste; and for a facility being modified the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility until:

1. The permittee has submitted to the cabinet, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in Kentucky stating that the facility has been constructed or modified in compliance with the permit; and

2.a. The cabinet has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

b. Within fifteen (15) days of the date of submission of the letter in subparagraph 1 of this paragraph, the permittee has not received notice from the cabinet of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(c) Transfers. This permit is not transferable to any person except after notice to the cabinet. The cabinet may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the appropriate statute (see Section 1 of 401 KAR 38:040, in some cases, modification or revocation and reissuance is mandatory).

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified in this permit.

(e) Compliance schedules. Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each scheduled date.

(f) Immediate reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within two (2) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported orally within two (2) hours:

1. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies, including both surface water and groundwater used for public drinking water supply.

2. Any information of a release or discharge of hazardous waste, or of a fire or explosion from a hazardous waste site or facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

a. Name, address, and telephone number of the owner or operator;

b. Name, address, and telephone number of the facility;

c. Date, time and type of incident;

d. Name and quantity of material(s) involved;

e. The extent of injuries, if any;
 f. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

g. Estimated quantity and disposition of recovered material that resulted from the incident. The cabinet may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (a), (d), (e) and (f) of this subsection at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this subsection.

(h) The following reports required by 401 KAR Chapter 34 shall be submitted:

1. Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the permittee must submit a letter or report including a copy of the manifest to the cabinet (see Section 3 of 401 KAR 34:050).

2. Unmanifested waste report. Must be submitted to the cabinet within fifteen (15) days of receipt of unmanifested waste (see Section 7 of 401 KAR 34:050).

3. Annual report. An annual report must be submitted covering facility activities during the previous calendar year (see Section 6 of 401 KAR 34:050).

4. Waste minimization report. Must be submitted to the cabinet annually stating that the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable. The proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

(i) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the cabinet, he shall promptly submit such facts or information.

(j) All permits issued by the cabinet will be subject to any future statutory or regulatory changes whose purpose is the protection of the health and welfare of the citizens of the Commonwealth or their environment.

(13) Information repository. The cabinet may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in Section 16(2) of 401 KAR 38:050. The information repository will be governed by the provisions of Section 16(3) through (6) of 401 KAR 38:050.

Section 2. Requirements for Recordkeeping and Reporting of Monitoring Results. All permits shall specify:

(1) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(2) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(3) Applicable reporting requirements based upon the impact of the regulated activity and as specified in KRS Chapter 224 and the Kentucky Hazardous Waste Management Administrative Regulations. Reporting shall be no less frequent than specified in the above administrative regulations.

Section 3. Establishing Permit Conditions. (1) In addition to conditions required for all permits in Section 1 of this administrative regulation, the cabinet shall establish conditions on a case-by-case basis in permits under Section 5 of 401 KAR 38:040 (duration of permit), Section 4 of this administrative regulation, (schedule of compliance), Section 2 of this administrative regulation (monitoring), and for cabinet issued permits only Section 4(2) of this administrative regulation (alternate schedules of compliance) and Section 3 of 401 KAR 38:010 (effect of a permit). In addition, each hazard-

ous waste site or facility permit shall include permit conditions necessary to achieve compliance with each of the applicable requirements specified in the Kentucky Hazardous Waste Management Administrative Regulations. In satisfying this provision, the cabinet may incorporate applicable requirements of the Kentucky Hazardous Waste Management Administrative Regulations directly into the permit or establish other permit conditions that are based on these administrative regulations.

(2) Individual programs.

(a) Each hazardous waste site or facility permit shall include permit conditions necessary to achieve compliance with KRS Chapter 224 and administrative regulations, including each of the applicable requirements specified in 401 KAR Chapters 34, 36 and 37. In satisfying this provision, the secretary may incorporate applicable requirements of 401 KAR Chapters 34, 36 and 37 directly into the permit or establish other permit conditions that are based on these requirements.

(b) Each permit issued under KRS 224.40-310 and 224.46-520 shall contain terms and conditions as the cabinet determines necessary to protect human health and the environment.

Section 4. General. (1) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the appropriate statute and administrative regulations.

(a) Time for compliance. Any schedules of compliance under this administrative regulation shall require compliance as soon as possible.

(b) Interim dates. Except as provided in subsection (2)(a)2 of this section, if a permit establishes a schedule of compliance which exceeds one (1) year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

1. The time between interim dates shall not exceed one (1) year.

2. If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than one (1) year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(c) Reporting. The permit shall be written to require that no later than fourteen (14) days following each interim date and the final date of compliance, the permittee shall notify the cabinet in writing of its compliance or noncompliance with the interim or final requirements.

(2) Alternative schedules of compliance. A permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste at a hazardous waste site or facility; and for treatment and storage hazardous waste sites or facilities, closing pursuant to the applicable requirements, and, for disposal hazardous waste sites or facilities, closing and conducting postclosure care pursuant to the applicable requirements), rather than continue to operate and meet permit requirements as follows:

(a) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

1. The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

2. The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(b) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(c) If the permittee is undecided whether to cease conducting regulated activities, the cabinet may issue or modify a permit to contain two (2) schedules as follows:

1. Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the permittee's decision is to continue conducting regulated activities;

2. One (1) schedule shall lead to timely compliance with applicable requirements;

3. The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

4. Each permit containing two (2) schedules shall include a requirement that after the permittee has made a final decision under paragraph (a) of this subsection he shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(d) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the cabinet, such as a resolution of the board of directors of a corporation.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:040. Changes to permits; expiration of permits.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 270 Subparts D, E
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530[~~40 C.F.R. 270 Subparts D-E~~]

NECESSITY, FUNCTION, AND CONFORMITY: [~~This administrative regulation implements provisions of~~ KRS 224.46-520 and 224.46-530 require the Environmental and Public Protection Cabinet to promulgate administrative regulations for waste permitting. This administrative regulation establishes the requirements pertaining[relative] to changes and expiration of hazardous waste permits. [To implement provisions of KRS 224.46-520 and 224.46-530 relative to changes and expiration of hazardous waste permits.] This administrative regulation is equivalent to federal standards established in 40 C.F.R. 270 Subparts D and E, except Section 1 of this administrative regulation requires the inclusion of background information and past compliance record in revised permit applications. Section 5 of this administrative regulation requires the review of nerve agent permits five (5) years postissuance, and Section 6 of this administrative regulation requires a permit fee. [D and E except for: Section 1(2) of this administrative regulation, which adds a reference to applicable statutory requirements contained in KRS 224.40-330; Section 4(1)(d) of this administrative regulation, which is added to allow the Cabinet to revoke a permit upon violation of KRS Chapter 224 and applicable state regulations; Section 5(5) of this administrative regulation, which is added to address nerve and blister agents as identified by KRS 224.50-130; and Section 6(1)(a) of this administrative regulation, which clarifies fee requirements for continuance of an expired permit. In Sections 2 and 3 of this administrative regulation, Kentucky has chosen to adopt previous federal permit modification procedures, rather than current federal procedures. U.S. EPA has approved states to use either method. Use of this previous permit modification procedure provides consistency with other Kentucky environmental programs.]

Section 1. Transfer of Permits. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.40, effective July 1, 2005 [with the modifications, exceptions, and additions set forth in this section].

(2) In addition to the requirements of 40 C.F.R. 270.40(b) a revised permit application shall include the background information and past compliance record required by KRS 224.40-330 and 401

KAR 38:090.

(3) The requirements contained within 40 C.F.R. 270.40(a) shall be replaced with the following: A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued to identify the new permittee and incorporate [such] other requirements [as may be] necessary under KRS Chapter 224 and 401 KAR Chapters 30 through 38.

Section 2. Modification or Revocation and Reissuance offer Permits. (1) The subject matter shall be governed by 40 C.F.R. 270.41, effective July 1, 2005.

(2) Class I modifications shall be submitted on the Form DEP 7092 entitled "Notification of Class I Modifications to Hazardous Waste Permits Not Requiring Prior Approval of the Cabinet" [-(July 2006)].

Section 3. Permit Modification at the Request of the Permittee. (1) The subject matter shall be governed by 40 C.F.R. 270.42 and Appendix, effective July 1, 2005.

(2) The citation to 40 C.F.R. 124.19 in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.10-420.

(3) The citation to RCRA Subtitle C in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS Subchapter 224.46.

Section 4. Termination of Permits. (1) The subject matter shall be governed by 40 C.F.R. 270.43, effective July 1, 2005.

(2) The cabinet may terminate a permit during its term or deny a permit renewal application for a violation of any requirement of KRS Chapter 224 or [the respective] administrative regulations promulgated pursuant thereto (including 401 KAR 40:040).

(3) The citation to 40 C.F.R. Part 22 in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR 38:040 and Chapter 40.

Section 5. Duration of Permits. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 270.50 [subject to the modifications, exceptions, and additions set forth in this section], effective July 1, 2005.

(2) A permit for the nerve agents specified in KRS 224.50-130 shall be reviewed by the cabinet five (5) years after the date of permit issuance or reissuance and shall be modified [if/as] necessary, as provided in Section 2 of this administrative regulation.

Section 6. Continuation of Expiring Permits. (1) The conditions of an expired permit shall continue in force until the effective date of a new permit if:

(a) The permittee:

1. [has] Submitted a timely application as established in[under] 401 KAR 38:090 and 38:100;

2. Complied with [and] the applicable requirements in 401 KAR 38:150 to 38:210;

3. Submitted an application[and] which is [a] complete for a new permit as required in 401 KAR 38:070, Section 1; and

4. Paid the applicable fees due as established in KRS 224.46-016, 224.46-018 and 401 KAR Chapter 39[under of 401 KAR 38:070, Section 1(3)] application for a new permit, paid the appropriate fees due (under 401 KAR Chapter 39 and KRS 224.46-016 through 224.46-018); and

(b) The cabinet, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit (for example, [if/when] issuance is impracticable due to time or resources constraints).

(2) Effect. Permits continued under this section shall remain fully effective and enforceable.

(3) Enforcement. In accordance with 40 C.F.R. 270.51(c), [if/When] the permittee is not in compliance with the conditions of the expiring or expired permit, the cabinet may [choose to] do any or all of the following:

(a) Initiate enforcement action based upon the permit which has been continued;

(b) Issue a notice of intent to deny the new permit under 401

KAR 38:050, Section 3. If the permit is denied, the owner or operator shall:

1. ~~Would then be required to~~ Cease the activities authorized by the continued permit; or

2. Be subject to enforcement action for operating without a permit;

3. Issue a new permit under 401 KAR 38:050 with appropriate conditions; or

4. Take other actions authorized by 401 KAR Chapters 30 to 40.

(4) State continuation. As provided in 40 C.F.R. 270.51(d), a U.S. [an] EPA issued permit shall not continue in force beyond its expiration date under federal law if at that time the cabinet is the RCRA permitting authority.

Section 7. Incorporation by Reference. (1) "Notification of Class I Modifications to Hazardous Waste Permits Not Requiring Prior Approval of the Cabinet", Form DEP 7092, I [July 2006], is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, Monday through Friday 8:00 a.m. to 4:30 p.m.

(3) This document may also be obtained from the Division of Waste Management's Web site [web page] located at: [www.waste.ky.gov].

[Section 1. Transfer of Permits. (1) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under subsection (2) of this section or Section 2(2)(b) of this administrative regulation) to identify the new permittee and incorporate such other requirements as may be necessary under KRS Chapter 224 and the waste management administrative regulations.

(2) Changes in ownership or operational control of a facility may be made as a major modification with prior written approval of the cabinet in accordance with Section 2 of this administrative regulation. The new owner or operator shall submit a revised permit application no later than ninety (90) days prior to the scheduled change. Among other demonstrations, this application shall comply with KRS 224.40-330. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees shall also be submitted to the cabinet. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of 401 KAR Chapter 34 until the cabinet approves transfer to the new owner or operator. The new owner or operator shall demonstrate compliance with Section 2 of this administrative regulation and 401 KAR Chapter 34 within six (6) months of the date of the change of ownership or operational control of the facility. Upon demonstration to the cabinet by the new owner or operator of compliance with 401 KAR Chapter 34, the cabinet shall notify the old owner or operator that he no longer needs to comply with 401 KAR Chapter 34 as of the date of demonstration.

Section 2. Major Modification or Revocation and Reissuance of Permits. When the cabinet receives any information (for example, if the cabinet inspects the facility, receives information submitted by the permittee as required in the permit under Section 1 of 401 KAR 38:030, receives a request for modification or revocation and reissuance under Section 2 of 401 KAR 38:050, or conducts a review of permit file), the cabinet may determine whether one (1) or more of the causes listed in subsections (1) and (2) of this section for modification or revocation and reissuance or both exist. If cause exists, the cabinet may modify or revoke and reissue the permit accordingly, subject to the limitations of subsection (3) of this section and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term (see Section 2(4) of 401 KAR 38:050). If cause does not exist under this section or Section 3 of this administrative regulation, the cabinet shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in Section 3 of this administrative regulation for

"minor modifications," the permit may be modified without a draft permit or public review. Otherwise, a draft permit shall be prepared and other procedures in 401 KAR 38:050 and, if applicable, 401 KAR 38:500 followed.

(1) Causes for modification. Paragraphs (a) to (d) of this subsection are causes for modification but not revocation and reissuance of permits. Paragraphs (a) to (d) of this subsection may be causes for revocation and reissuance as well as modification, when the permittee requests or agrees.

(a) Alterations. There are material and substantial alterations or additions to the permitted hazardous waste site or facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(b) Information. The cabinet has received new information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised administrative regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(c) New statutory requirements or administrative regulations. The standards or administrative regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or administrative regulations, or by judicial decision after the permit was issued. Except as provided in paragraph (e) of this subsection, permits may be modified during their terms for this cause as follows:

1. The cabinet may modify the permit when the standards or administrative regulations on which the permit was based have been changed by statute or amended standards or administrative regulations.

2. Permittee may request modification when:

a. The permit condition to be modified was based on a promulgated administrative regulation in 401 KAR Chapters 30 to 38; and

b. The cabinet has revised, withdrawn, or modified that portion of the administrative regulation on which the permit condition was based; or

c. A permittee requests modification in accordance with Section 2 of 401 KAR 38:050 within ninety (90) days after notice of the action on which the request is based.

3. For judicial decisions, a court of competent jurisdiction has remanded and stayed cabinet promulgated administrative regulations, if the remand and stay concern that portion of the administrative regulations on which the permit condition was based or if a request is filed by the permittee in accordance with Section 2 of 401 KAR 38:050 within ninety (90) days of judicial remand.

(d) Compliance schedules. The cabinet determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, materials shortage, or other events over which the permittee has little or no control and for which there is no reasonably available remedy (see also Section 3 of this administrative regulation on minor modifications).

(e) The cabinet may modify a permit:

1. When modification of a closure plan is required under Section 3(2) or 4(2) of 401 KAR 34:070.

2. When the cabinet receives notification of expected closure under Section 4 of 401 KAR 34:070 and finds that any of the following previously granted permit conditions are no longer warranted:

a. Extension of the ninety (90) or 180-day periods under Section 4 of 401 KAR 34:070;

b. Modification of an extended postclosure care period under Section 7 of 401 KAR 34:070;

c. Continuation of security requirements under Section 7(2) of 401 KAR 34:070; or

d. Permission to disturb the integrity of the containment system under Section 7(3) of 401 KAR 34:070.

3. When the permittee has filed a request under Section 4 of 401 KAR 34:120 for a variance to the level of financial responsibility or when the cabinet demonstrates under Section 5 of 401 KAR 34:120 that an upward adjustment of the level of financial responsibility is required.

4. When the corrective action program specified in the permit under Section 11 of 401 KAR 34:060 has not brought the regulated unit into compliance with the groundwater protection standard within a reasonable period of time.

5. To include a detection monitoring program meeting the requirements of Section 9 of 401 KAR 34:060, when the owner or operator has been conducting a compliance monitoring program under Section 10 of 401 KAR 34:060 or a corrective action program under Section 11 of 401 KAR 34:060 and the compliance period ends before the end of the postclosure care period for the unit.

6. When a permit requires a compliance monitoring program under Section 10 of 401 KAR 34:060, but monitoring data collected prior to permit issuance indicate that the facility is exceeding the groundwater protection standard.

7. To include the conditions applicable to units at a facility that were not previously included in the site or facility's permit.

8. When a land treatment unit is not achieving complete treatment of hazardous constituents under its current permit conditions.

9. To include conditions applicable in new or amended standards or administrative regulations.

10. When modification is necessary to protect the public health or the environment.

11. To include conditions applicable as the result of a hearing or enforcement action as specified in 401 KAR Chapter 40.

(f) Notwithstanding any other provision in this section, when a permit for a land disposal facility is reviewed by the cabinet under Section 5(4) of this administrative regulation, the cabinet shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in 401 KAR Chapters 30 to 39.

(2) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(a) Cause exists for termination under Section 4 of this administrative regulation and the cabinet determines that modification or revocation and reissuance is appropriate.

(b) The cabinet has received notification (as required in the permit in Section 1(12)(c) of 401 KAR 38:030) of a proposed transfer of the permit.

(c) Cause exists for termination under Subsection 2(1)(e) and (f) of this Section, and the cabinet determines that modification or revocation and reissuance is appropriate.

(3) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

(4) Major modifications that include changes in ownership and operational control of a facility may be made if the new owner or operator submits a revised permit application no later than ninety (90) days prior to the scheduled change. A change in ownership or operational control includes a transfer of twenty-five (25) or more percent interest in the corporation, joint venture, partnership, proprietorship, or entity designated to own or operate the hazardous waste site or facility. When a transfer of ownership or operational control of a site or facility occurs, the old owner or operator shall comply with the requirements of 401 KAR 34:080 to 401 KAR 34:176 (financial requirements), until the new owner or operator has demonstrated to the cabinet that he is complying with the requirements in 401 KAR 34:080 to 401 KAR 34:176. The new owner or operator shall demonstrate compliance with the requirements in 401 KAR 34:080 to 401 KAR 34:176 within six (6) months of the date of the change in the ownership or operational control of the site or facility. Upon demonstration to the cabinet by the new owner or operator of compliance with the requirements in 401 KAR 34:080 to 401 KAR 37:176, the cabinet shall notify the old owner or operator in writing that he no longer needs to comply with the requirements in 401 KAR 34:080 to 401 KAR 34:176 as of the date of demonstration. Past performance as specified in Section 2(20) of 401 KAR 38:090 shall be considered. The provisions set forth in Section 3 of this administrative regulation as amended on March 10, 1988, shall apply to requests for modification received by the cabinet prior to November 14, 1990, and including all additional information and documentation submitted subsequent to November 14, 1990, as requested by the cabinet.

Section 3. Minor Modifications of Permits. Upon consent of the permittee, the cabinet may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this sec-

tion, without following the procedures of 401 KAR 38:050. Any permit modification not processed as a minor modification under this section shall be made for cause and with a 401 KAR 38:050 draft permit, public notice as required in Section 2 of this administrative regulation and, if applicable, compliance with 401 KAR 38:500 shall be demonstrated.

(1) The permittee shall put into effect minor modifications listed in subsection (3) of this section under the following conditions:

(a) The permittee shall inform the cabinet concerning the modification by certified mail or other means that establish proof of delivery within seven (7) calendar days after the change is put into effect. This notice shall specify the changes being made to permit conditions or supporting documents referenced by the permit, and shall explain why they are necessary. Along with the notice, the permittee shall provide a completed notification of minor modifications to hazardous waste permits not requiring prior approval of the cabinet, as incorporated by reference in subsection (2) of this section. The permittee shall also provide the applicable information from Parts A and B of the Kentucky Hazardous Waste Permit Application as it relates to the specific type of facility.

(b) The permittee shall send a notice of the modification to all persons on the facility mailing list and the appropriate units of local government. This notification shall be made within ninety (90) calendar days after the cabinet approves the request.

(c) Any person may request that the cabinet review, and the cabinet may, for cause, reject any minor modification. The cabinet shall inform the permittee by certified mail that a minor modification has been rejected, explaining the reasons for the rejection. If a minor modification has been rejected, the permittee shall comply with the original permit conditions.

(d) Minor modifications listed in subsection (3) of this section requiring "Prior Approval" shall be made only with the prior written approval of the cabinet.

(e) For a minor modification, the permittee may elect to follow the procedures for major modifications instead of the minor modifications procedures. The permittee shall inform the cabinet of this decision in the notice required in Section 2 of this administrative regulation.

(2) Form DEP 7092 entitled "Notification of Minor Modifications to Hazardous Waste Permits Not Requiring Prior Approval of the Cabinet" (July 1996) is hereby incorporated by reference. This form is available at the Hazardous Waste Branch, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, (502) 564-6716, between 8 a.m. and 4:30 p.m., eastern time, Monday through Friday, except on state holidays.

(3) The following shall be used to determine whether prior approval is required for a minor modification:

CLASSIFICATION OF PERMIT MINOR MODIFICATION (1 OF 6)			
TYPE OF MINOR MODIFICATION	PRIOR APPROVAL	NOTIFICATION	
(a) General Permit Provisions:			
1. Administrative and informative changes.		X	
2. Correction of typographical errors.		X	
3. Equipment replacement or upgrading with functionally equivalent components (e.g. pipes, valves, pumps, conveyors, controls).		X	
4. Changes to provide for more frequent monitoring, reporting, sampling, or maintenance activities by the permittee.		X	
5. Changes in interim compliance dates.	X		
(b) General Facility Standards:			
1. Changes to waste sampling or analysis methods to conform with agency guidelines or administrative regulations.	X		

VOLUME 33, NUMBER 12 – JUNE 1, 2007

2. Changes associated with F030 (multisource leachate) sampling or analysis methods.	X	
3. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive waste.	X	
4. Changes to analytical quality assurance or the quality control plan to conform with agency administrative regulations.	X	
5. Changes in the training plan, except to decrease the amount of training or type of training.	X	
6. Changes in names, address or phone number of coordinators or other persons or agencies identified in the contingency plan.	X	
7. Changes that the construction quality assurance officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design standards.		X
8. Other construction quality assurance changes.	X	
(c) Groundwater Protection:		
1. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well.		X
2. Changes in groundwater sampling or analysis procedures or monitoring schedule.	X	
3. Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred.	X	
(d) Closure:		
1. Changes to the closure plan in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility.	X	
2. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period.	X	
3. Changes in the expected year of final closure, where other permit conditions are not changed.	X	
4. Changes in procedures for decontamination of facility equipment or structures.	X	
5. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this section.	X	
6. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive nonhazardous wastes after final receipt of hazardous wastes under Section 4(4) and (5) of 401 KAR 34:070.	X	

(e) Postclosure:		
1. Changes in name, address, or phone number of contact in post-closure plan.	X	
2. Changes to the expected year of final closure, where other permit conditions are not changed.	X	
(f) Containers:		
1. Addition of a roof to a container unit without alteration of the containment system.		X
(g) Tanks:		
1. Addition of a new tank that will operate for up to ninety (90) days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation.	X	
2. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/- ten (10) percent of the replaced tank provided:	X	
a. The capacity difference is no more than 1500 gallons.		
b. The facility's permitted tank capacity is not increased.		
c. The replacement tank meets the same conditions in the permit.		
(h) Surface Impoundments:		
1. Modifications of unconstructed units to comply with 401 KAR 34:200.	X	
2. Changes in response action plan:	X	
a. Increase in action leakage rate.	X	
b. Changes in specific response reducing its frequency or effectiveness.	X	
c. Other changes.	X	
3. Other changes.	X	
(i) Enclosed Waste Piles:		
1. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit.	X	
2. Conversion of an enclosed waste pile to a containment building unit.	X	
(j) Landfills and Unenclosed Waste Piles:		
1. Modifications of unconstructed units to comply with 401 KAR 34:210.	X	
2. Changes in response action plan:	X	
a. Increase in action leakage rate.	X	
b. Change in a specific response reducing its frequency or effectiveness.	X	
c. Other changes in response action plan.	X	
3. Other changes.	X	
(k) Land Treatment:		
1. Modification of a land treatment unit management practice to decrease rate of waste application.		X

VOLUME 33, NUMBER 12 – JUNE 1, 2007

2. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met.	X	
3. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration conducted have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration. In addition, the land treatment waste application rate cannot exceed previously established waste application rates.	X	
(l) Incinerators – Shakedown and Trial Burn:		
1. Authorization of up to an additional 720 hours of waste incineration during the shakedown period for determining operational readiness after construction.	X	
2. Minor changes in the operating requirements set in the permit for conducting a trial burn.	X	
3. Minor changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn.	X	
(m) Containment Buildings:		
1. Modification or addition of containment building units resulting in up to 25% increase in the facility's containment building storage or treatment capacity.	X	
2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit.	X	
3. Replacement of a containment building that meets the same design standards provided:		
a. The unit capacity is not increased; or		X
b. The replacement containment building meets the same conditions in the permit.		X
4. Modification of a containment building management practice.	X	
5. Storage or treatment of different wastes in containment buildings that do not require additional or different management practices.	X	
(n) Corrective Action:		
1. Approval of a corrective action management unit pursuant to Section 1 of 401 KAR 34:287.	X	
2. Approval of a temporary unit or time extension for a temporary unit pursuant to Section 2 of 401 KAR 34:287.	X	

Section 4. Termination of Permits. (1) The cabinet may terminate a permit during its term or deny a permit renewal application for the following causes:

(a) Noncompliance by the permittee with any condition of the permit;

(b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's

misrepresentation of any relevant facts at any time;

(c) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or

(d) A violation of any requirement of KRS Chapter 224 or the respective administrative regulations promulgated pursuant thereto (including 401 KAR 40:040).

(2) The cabinet shall follow the applicable procedures in this administrative regulation and in 401 KAR 38:050 and 401 KAR Chapter 40 in terminating any permit under this section.

Section 5. Duration of Permit. (1) Term of permit. Hazardous waste site or facility permits shall be effective for a fixed term not to exceed ten (10) years. (See also Section 5 of 401 KAR 38:060.)

(2) Modification of term of permit. Except as provided in Section 6 of this administrative regulation, the term of a permit shall not be extended by modification beyond the maximum duration specified in subsection (1) of this section.

(3) Reduced term of permit. The cabinet may issue any permit for a duration that is less than the full allowable term under subsection (1) of this section.

(4) Each permit for a land disposal facility shall be reviewed by the cabinet five (5) years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in Section 2 of this administrative regulation.

(5) A permit for the nerve agents specified in KRS 224.50-130 shall be reviewed by the cabinet five (5) years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in Section 2 of this administrative regulation.

Section 6. Continuation of Expiring Permits. (1) The conditions of an expired permit continue in force until the effective date of a new permit if:

(a) The permittee has submitted a timely application under 401 KAR 38:090 and 401 KAR 38:100 and the applicable requirements in 401 KAR 38:150 to 401 KAR 38:210 and which is a complete (under Section 1(3) of 401 KAR 38:070) application for a new permit, paid the appropriate fees due (under 401 KAR Chapter 39 and KRS 224.46-016 through 224.46-018); and

(b) The cabinet, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resources constraints).

(2) Effect. Permits continued under this section remain fully effective and enforceable.

(3) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the cabinet may choose to do any or all of the following:

(a) Initiate enforcement action based upon the permit which has been continued;

(b) Issue a notice of intent to deny the new permit under Section 3 of 401 KAR 38:050. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(c) Issue a new permit under 401 KAR 38:050 with appropriate conditions; or

(d) Take other actions authorized by 401 KAR Chapters 30 to 40.

(4) State continuation. As provided in 40 C.F.R. 270.51(d), an EPA issued permit shall not continue in force beyond its expiration date under federal law if at that time the cabinet is the RCRA permitting authority.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 38:050. Public information procedures.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 124 Subpart A

STATUTORY AUTHORITY: KRS 224.40-305, 224.46-520

NECESSITY, FUNCTION, AND CONFORMITY: KRS ~~[224.40-305 and]~~ 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes requirements for~~[require any person who treats, stores, recycles or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities and establishes standards on]~~ public information procedures and confidentiality.

Section 1. Application for a Permit. (1)(a)1. Any person who requires a hazardous waste site or facility permit under KRS Chapter 224 shall complete, sign, and submit to the cabinet an application for each permit required under **401 KAR 38:010, Section 1.**

2. Applications shall not be~~[Section 1 of 401 KAR 38:010. Applications are not]~~ required for hazardous waste site or facility permits-by-rule, in accordance with 401 KAR 38:060, Section 1~~[permits by rule (Section 1 of 401 KAR 38:060)]~~ or underground injections authorized by-rule.

3. [by rule. However, for] All facilities, including underground injection wells, which meet the definition of a disposal facility as defined in 40 C.F.R. 260.10, shall demonstrate compliance to the cabinet~~(see 401 KAR 38:010), compliance]~~ with the requirements of 401 KAR 38:500, ~~[(i)Provisions for approval by the local government or the Kentucky Regional Integrated Treatment and Disposal Facility Siting Board], if applicable, [shall be demonstrated to the cabinet] prior to construction or operation under a permit-by-rule~~permit-by-rule.

(b)1. The cabinet shall not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit as established in~~(see Sections 1 through 6 of]~~ 401 KAR 38:070, Sections 1 through 6; 401 KAR 38:080; and the applicable requirements in 401 KAR 38:150 through 38:210.

2.]-] Applications shall be processed in accordance with 401 KAR 38:010.

(c) Permit applications shall comply with the signature and certification requirements of ~~[Section 7 of]~~ 401 KAR 38:070, Section 7.

(2)(a) Upon completing the review, the cabinet shall notify the applicant in writing whether the application is complete or incomplete.

(b) If the application is incomplete, the cabinet shall list the information necessary to make the application complete.

(c) If [When] the application is for an existing hazardous waste site or facility, the cabinet shall specify in the notice of deficiency a date for submitting the necessary information.

(d) The cabinet shall~~[may]~~ notify the applicant that the application is complete upon receiving this information.

(e) Any application, complete or incomplete, shall be denied in accordance with 401 KAR 38:310~~[may be denied based on the considerations set forth in KRS 224.46-520].~~

(3) In accordance with 40 C.F.R. 124.3(d), if an applicant fails or refuses to correct deficiencies in the application or if the applicant fails or refuses to submit additional information, the permit may be denied and appropriate enforcement actions may be taken under the applicable statutory provision.

(4) If the cabinet decides that a site visit is necessary for any reason in conjunction with the processing of an application, a representative of the cabinet shall notify the applicant and a visit~~[date]~~ shall be scheduled.

(5) The effective date of an application shall be~~[is]~~ the date on which the cabinet notifies the applicant that the application is com-

plete as established~~[provided]~~ in subsection (2) of this section.

(6) For each application, the cabinet shall, no later than the effective date of the application, prepare and mail to the applicant a project decision schedule specifying~~[The schedule shall specify]~~ target dates by which the cabinet intends to:

- (a) Prepare a draft permit;
- (b) Give public notice;
- (c) Complete the public comment period, including any public hearing; and
- (d) Issue a final permit.

Section 2. Modification, Revocation and Reissuance, or Termination of Permits. (1) In accordance with 40 C.F.R. 124.5(a), a permit for a hazardous waste site or facility may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the cabinet's initiative. However, a permit may only be modified, revoked and reissued, or terminated for the reasons established in~~[specified in Sections 2 and 4 of]~~ 401 KAR 38:040, Sections 2 and 4, and following the procedures of 401 KAR Chapter 40. All requests shall be in writing and shall contain facts or reasons supporting the request.

(2)(a) If the cabinet decides the request is not justified, the cabinet shall send the requester a brief written response giving a reason for the decision.

(b) Denials of requests for modification, revocation and reissuance, or termination shall not be~~[are not]~~ subject to public notice, comment, or hearings.

(3)(a)1. If the cabinet tentatively decides to modify or revoke and reissue a permit under ~~[Section 2 of]~~ 401 KAR 38:040, Section 2, the cabinet shall prepare a draft permit under Section 3 of this administrative regulation incorporating the proposed changes.

2. If needed by the cabinet to make a determination, the cabinet may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

3. In the case of revoked and reissued permits, the cabinet shall require the submission of a new application.

(b)1. In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit.

2. If [When] a permit is revoked and reissued under this section, the entire permit shall be~~[is]~~ reopened [just] as if the permit had expired and was being reissued.

3. During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(c) "Class 1~~[I]~~ and Class 2~~[II]~~ [Minor] modifications" as identified in ~~[Section 3 of]~~ 401 KAR 38:040, Section 3, shall not be~~[are not]~~ subject to the requirements of this section.

(4) If the cabinet tentatively decides to terminate a permit under ~~[Section 4 of]~~ 401 KAR 38:040, Section 4, it shall issue a notice of intent to terminate. A notice of intent to terminate shall follow~~[is a type of draft permit which follows]~~ the same procedures as any draft permit prepared under Section 3 of this administrative regulation.

(5) All draft permits (including notices of intent to terminate) prepared under Sections 3 through 5 of this administrative regulation shall be based on the administrative record as established~~[defined]~~ in Section 6 of this administrative regulation.

Section 3. Draft Permits. (1) If [One] an application is complete, the cabinet shall tentatively decide whether to prepare a draft permit or to deny the application based on~~[In making this determination the cabinet shall consider]~~ the requirements specified ~~[in the waste management administrative regulations and]~~ in KRS 224.46-520 and 401 KAR Chapters 30 through 49.

(2)(a) If the cabinet tentatively decides to deny the permit application, it shall issue a notice of intent to deny. A notice of intent to deny the permit application shall follow~~[is a type of draft permit which follows]~~ the same procedures as any draft permit prepared under this subsection and ~~[see]~~ subsection (4) of this section.

(b)1. If the cabinet's final decision is that the tentative decision

to deny the permit application was incorrect, the cabinet shall withdraw the notice of intent to deny and proceed to prepare a draft permit under subsection (3) of this section.

(3) If the cabinet decides to prepare a draft permit, the draft permit shall contain the following information:

(a) All conditions established in[under Sections 1 and 3 of] 401 KAR 38:030, Sections 1 and 3;

(b) All compliance schedules established in[under Section 4 of] 401 KAR 38:030, Section 4;

(c) All monitoring requirements established in[under Section 2 of] 401 KAR 38:030, Section 2; and

(d) Standards for treatment, storage or disposal, and other permit conditions established in[under Section 1 of] 401 KAR 38:030, Section 1.

(4)(a) All draft permits prepared by the cabinet under this section shall be:

1. Accompanied by a statement of basis required by[see] Section 4 of this administrative regulation[)] or fact sheet required by[see] Section 5 of this administrative regulation;

2.[)] and shall be] Based on the administrative record as established in[see] Section 6 of this administrative regulation;

3.[)] and] Publicly noticed as required by[see] Section 7 of this administrative regulation[)]]; and

4.[shall be] Made available for public comment as required by[see] Section 8 of this administrative regulation[)].

(b) The cabinet shall:

1. Give notice of the opportunity for a public hearing as required by KRS 224.40-310 and[see] Section 9 of this administrative regulation;

2.[)] Issue a final decision; and

3. Respond to comments as required by[see] Section 11 of this administrative regulation[)].

(c) An appeal may be taken as established in[under] KRS 224.10-420.

Section 4. Statement of Basis.

(1) The cabinet shall prepare a statement of basis for every draft permit for which a fact sheet required by[under] Section 5 of this administrative regulation is not prepared.

(2) The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision.

(3) The statement of basis shall be sent to the applicant and, on request, to any other person.

Section 5. Fact Sheet. (1)(a) A fact sheet shall be prepared for every draft permit for a hazardous waste site or facility which includes an incinerator, a surface impoundment, a disposal facility (landfill, land treatment facility, or injection well[~~], for example]), or a research, development, and demonstration facility, and for every draft permit which the cabinet finds is the subject of widespread public interest or raises major issues.~~

(b) The fact sheet shall briefly establish[set forth] the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

(c) The cabinet shall send this fact sheet to the applicant and, on request, to any other person.

(2) The fact sheet shall include, if[when] applicable:

(a) A brief description of the type of facility or activity which is the subject of the draft permit;

(b) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

(c) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by Section 6 of this administrative regulation;

(d) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(e) A description of the procedures for reaching a final decision on the draft permit including:

1. The beginning and ending dates of the comment period under Section 7 of this administrative regulation and the address

where comments shall be received;

2. Procedures for requesting a hearing and the nature of that hearing; and

3. Any other procedures by which the public may participate in the final decision; and[.]

(f) Name and telephone number of a person to contact for additional information.

Section 6. Administrative Record for Draft Permits. (1) The provisions of a draft permit prepared by the cabinet under Section 3 of this administrative regulation shall be based on the administrative record established[defined] in this section.

(2) For preparing a draft permit under Section 3 of this administrative regulation, the record shall consist of:

(a) The application, if required, and any supporting data furnished by the applicant;

(b) The draft permit or notice of intent to deny the application or to terminate the permit;

(c) The statement of basis as established in[see] Section 4 of this administrative regulation[)] or fact sheet as established in[see] Section 5 of this administrative regulation[)];

(d) All documents cited in the statement of basis or the fact sheet; and

(e) Other documents contained in the supporting file for the draft permit.

(3) Material readily available at the cabinet's office or published material that is generally available, and that is included in the administrative record under this subsection and subsection (2) of this section, shall[need] not be physically included with the rest of the record if[as long as] it is specifically referred to in the statement of basis or the fact sheet.

~~[(4) This section applies to all draft permits when public notice was given after the effective date of these administrative regulations.]~~

Section 7. Public Notice of Permit Application and Public Comment Period. (1) Scope.

(a) The cabinet shall give public notice under KRS 224.40-310(4) and (5) that the following actions have occurred:

1. A permit application has been tentatively denied under Section 3(2) of this administrative regulation;

2. A draft permit has been prepared under Section 3(3) of this administrative regulation;

3. A hearing has been scheduled under Section 9 of this administrative regulation; or[and]

4. An appeal has been granted under 401 KAR ~~100:010~~[40:030].

(b) Public notice shall not be required if[No public notice is required when] a request for permit modification, revocation and reissuance, or termination is denied under Section 2(2) of this administrative regulation. Written notice of that denial shall be given to the requester and to the permittee.

(c) Public notices may describe more than one (1) permit or permit action.

(2) Timing.

(a) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under subsection (1) of this section shall allow at least forty-five (45) days for public comment.

(b) Public notice of a public hearing shall be given at least thirty (30) days before the hearing. ~~[(Public notice of the hearing may be given at the same time as public notice of the draft permit, and the two (2) notices may be combined.)]~~

(3) Methods. Public notice of activities described in subsection (1)(a) of this section shall be given by the following methods:

(a) [By] Mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this subparagraph may waive his or her rights to receive notice for any classes and categories of permits):

1. The applicant;

2. Any other agency which ~~[the cabinet knows]~~ has issued or is required to issue an environmental permit for the same facility or activity (including United States Environmental Protection Agency);

3. Federal and state agencies with jurisdiction over fish, shell-

fish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any other affected states;

4. Persons on a mailing list developed by:

a. Including those who request in writing to be on the list;

b. Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

c. Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in ~~such~~ publications such as regional and state funded newsletters, environmental bulletins, or state law journals. ~~[(The cabinet may update the mailing list [from time to time] by requesting written indication of continued interest from those listed. The cabinet may delete from the list the name of any person who fails to respond to [such] a request;[-])]]~~

5. ~~[To]~~ Any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

6. ~~[To]~~ Each state agency having any authority under state law with respect to the construction or operation of ~~a[such] facility;[-]~~

(b) Publication of a notice in a daily or weekly major local newspaper of general circulation as required by KRS 224.40-310(2), (4), and (5) and broadcast over any commercial radio stations which have general coverage in the locality where the proposed site is located; or[-]

(c) Any other method reasonably calculated to give actual notice of the action ~~[in question]~~ to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(4) Contents.

(a) All public notices. All public notices issued under 401 KAR Chapter 38~~[this chapter]~~ shall contain the following minimum information:

1. Name and address of the office processing the permit action for which notice is being given;

2. Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

3. A brief description of the business conducted at the facility or activity described in the permit application;

4. Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, statement of basis or fact sheet, and the application;

5. A brief description of the comment procedures required by Sections 8 and 9 of this administrative regulation and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision;

6. The location of the administrative record required by Section 6 of this administrative regulation, the times at which the record will be open for public inspection, and a statement that all data submitted by the applicant is available as part of the administrative record;

7. The statement contained in KRS 224.40-310(5)(e); and

8. Any additional information considered necessary or proper.

(b) Public notices for hearings. In addition to the general public notice described in paragraph (a)~~[subsection (4)(a)]~~ of this subsection~~[section]~~, the public notice of a hearing under Section 9 of this administrative regulation shall contain the following information:

1. Reference to the date of previous public notices relating to the permit;

2. Date, time, and place of the hearing; and

3. A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(5)(a) In addition to the general public notice described in subsection (4)(a) of this section, all persons identified in subsection (3)(a) of this section shall be mailed a copy of the fact sheet or statement of basis, the permit application (if any), and the draft permit (if any).

(b) The cabinet shall charge for duplication cost and postage.

Section 8. Public Comments and Requests for Public Hear-

ings.

(1) During the public comment period established in~~provided under~~ Section 7 of this administrative regulation, any interested person may submit written comments on the draft permit and may request a public hearing if a hearing has not~~[no hearing has] already been scheduled.~~

(2) A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

(3) All comments shall be considered in making the final decision and shall be answered as established~~provided~~ in Section 11 of this administrative regulation.

Section 9. Public Hearings. (1)(a) The cabinet shall hold a public hearing on the basis of requests, if~~when~~ a significant degree of public interest in a draft permit~~permit(s)]~~ is found.

(b) The cabinet ~~[at its discretion]~~ may ~~also~~ hold a public hearing if~~whenever, for instance, such~~ a hearing will~~might~~ clarify one (1) or more issues involved in the permit decision.

(c)1. The cabinet shall hold a public hearing if~~whenever~~ written notice of opposition to a draft permit and a request for a hearing is received within forty-five (45) days of public notice under Section 7(2)(a) of this administrative regulation ~~[is received]~~.

2. ~~Whenever possible~~ The cabinet shall schedule a hearing under this section at a location convenient to the population center nearest to the proposed facility if~~provided~~ the hearing location is in the same county as required by KRS 224.40-310(5)(e).

(d) Public notice of the hearing shall be given as specified in Section 7 of this administrative regulation.

(2) if~~Whenever~~ a public hearing is held, the cabinet shall designate a presiding officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(3)(a) A~~Any~~ person may submit oral or written statements and data concerning the draft permit.

(b) Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required.

(c) The public comment period under Section 7 of this administrative regulation shall automatically be extended to the close of any public hearing under this administrative regulation.

(d) The hearing officer may also extend the comment period by ~~se~~ stating so at the hearing.

(4) A tape recording or written transcript of the hearing shall be made available to any person upon payment of the actual cost of reproducing the original.

Section 10. Reopening of the Public Comment Period. (1)(a) The Director may order the public comment period reopened if the procedures of this paragraph could expedite the decision-making process. If the public comment period is reopened under this paragraph, all persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Cabinet's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall submit all reasonably available factual grounds supporting their position, including all supporting material, by a date, not less than sixty days after public notice under paragraph (1)(b) of this section, set by the Cabinet. Thereafter, any person may file a written response to the material filed by any other person, by a date, not less than twenty days after the date set for filing of the material, set by the cabinet.

(b) Public notice of any comment period under this paragraph shall identify the issues to which the requirements of 401 KAR 38:010, Section 1 apply.

(c) On its own motion or on the request of any person, the Cabinet may direct that the requirements of paragraph (a) of this subsection shall apply during the initial comment period if it reasonably appears that issuance of the permit will be contested and that applying the requirements of paragraph (a) of this subsection will substantially expedite the decision-making process. The notice of the draft permit shall state if this has been done.

(d) A comment period of longer than 60 days may be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this

section. Commenters may request longer comment periods and they shall be granted under Section 7 of this administrative regulation to the extent they appear necessary.

(2) In accordance with 40 C.F.R. 124.14(b), if any data, information or arguments submitted during the public comment period (including information or arguments that any condition of the draft permit or permit denial is inappropriate) appear to raise substantial new questions concerning a permit, the cabinet may take one (1) or more of the following actions:

(a) Prepare a new draft permit, appropriately modified, under Section 3 of this administrative regulation;

(b) Prepare a revised statement of basis under Section 4 of this administrative regulation and reopen the comment period under this section; or

(c) Reopen or extend the comment period under Section 7 of this administrative regulation to give interested persons an opportunity to comment on the information or arguments submitted.

(3)(a)(2) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening.

(b) The public notice under Section 7 of this administrative regulation shall define the scope of the reopening.

(4)(a)(3) The cabinet may [also], in the circumstances established in subsection (2) of this section [described above], elect to hold further proceedings.

(b) This decision may be combined with any of the actions enumerated in subsection (1) of this section.

(5)(4) Public notice of any of the [above] actions listed in subsection (1) of this section shall be issued under Section 7 of this administrative regulation.

Section 11. Response to Comments. (1) [At the time that any final permit decision is issued,] The cabinet shall issue a response to comments when the [a] final permit is issued. This response shall:

(a) Specify which provisions, if any, of the draft permit have been changed in the final permit decision[,] and the reasons for the change; and

(b) Briefly describe and respond to all significant comments on the draft permit raised during the public comment period[,] or during any hearing.

(2)(a) For cabinet issued permits, any documents cited in the response to comments shall be included in the administrative record for the final permit decision.

(b) If new points are raised or new material supplied during the public comment period, the cabinet may document its response to those matters by adding new materials to the administrative record.

(3) The response to comments shall be available to the public.

(4)(a) In the case of a hazardous waste disposal site or facility, [a] permit shall not be approved or issued by the cabinet prior to the approvals specified in KRS 224.40-310[(5) and] (6).

(b) [401 KAR 38:500 details the procedures that] The applicant shall follow the procedures established in 401 KAR 38:500 [use] in obtaining:

1. Local government approval for incinerators or land disposal facilities; or

2. For a regional integrated waste treatment and disposal demonstration facility, the approval of the Kentucky Regional Integrated Waste Treatment and Disposal Facility Siting Board.

Section 12. Issuance and Effective Date of Permit. (1)(a) After the close of the public comment period under Section 7 of this administrative regulation on a draft permit, the cabinet shall issue a final permit decision [(for a decision to deny a permit for the active life of a hazardous waste management facility or unit under [Section 11 of] 401 KAR 38:310[38:070]).

(b) For the purposes of this section, a final permit decision shall include [means] a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(2) A final permit decision shall become effective on the date issued by the cabinet.

Section 13. Past Performance Considered in Review. Past performance of the owner or operator shall be considered in the

review and in the determination of any requirement for specialized conditions.

Section 14. Preapplication Public Meeting and Notice. (1) Applicability.

(a) The requirements of this section shall apply to all hazardous waste Part B applicants [applications] seeking initial permits for hazardous waste management units over which the cabinet has permit issuance authority.

(b) The requirements of this section shall also apply to a hazardous waste Part B applicant [applications] seeking renewal of permits for [such] units, if [where] the renewal application is proposing a significant change in facility operations.

(c) For the purposes of this section, a "significant change" shall be a [is any] change that qualifies [would qualify] as a Class 3 [H] [major] modification under [Section 2 of] 401 KAR 38:040, Section 2.

(d) The requirements of this section shall [do] not apply to permit Class 1 [I] and Class 2 [H] [minor] modifications under [Section 3 of] 401 KAR 38:040, Section 3, or to applications that are submitted for the sole purpose of conducting postclosure activities or postclosure activities and corrective action at a facility.

(2)(a) Prior to the submission of a Part B hazardous waste permit application for a facility, the applicant shall hold at least one (1) meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities.

(b) The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

(3) The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses established [developed] under subsection (2) of this section, and copies of any written comments or materials submitted at the meeting, to the cabinet as a part of the Part B application, in accordance with [Section 2(26) of] 401 KAR 38:090, Section 2(26).

(4) The applicant shall provide public notice of the pre-application meeting at least thirty (30) days prior to the meeting. The applicant shall maintain, and provide to the cabinet upon request, documentation of the notice.

(a) The applicant shall provide public notice in all of the following forms:

1. A newspaper advertisement.

a. The applicant shall publish a notice, fulfilling the requirements in paragraph (b) of this subsection, in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the cabinet shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, if [where] the cabinet determines that [such] publication is necessary to inform the affected public.

b. The notice shall be published as a display advertisement.

2. A visible and accessible sign.

a. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in paragraph (b) of this subsection.

b. If the applicant places the sign on the facility property, then the sign shall be large enough to be readable from the nearest point where the public would pass by the site.

3. A broadcast media announcement.

a. The applicant shall broadcast a notice, fulfilling the requirements in paragraph (b) of this subsection, at least once on at least one (1) local radio station [stations] or television station.

b. The applicant may employ alternative [another] medium with prior approval of the cabinet.

4. A notice to the cabinet. The applicant shall send a copy of the newspaper notice to the cabinet and to the appropriate units of state and local government, in accordance with Section 7(3) of this administrative regulation.

(b) The notices required under paragraph (a) of this subsection shall include:

1. The date, time, and location of the meeting;

2. A brief description of the purpose of the meeting;

3. A brief description of the facility and proposed operations,

including the address or a map (for example, a sketched or copied street map) of the facility location;

4. A statement ~~requiring~~~~[encouraging]~~ people to contact the facility at least seventy-two (72) hours before the meeting if they need special access to participate in the meeting; and

5. The name, address, and telephone number of a contact person for the applicant.

Section 15. Public Notice Requirements at the Application Stage. (1) Applicability.

(a) The requirements of this section shall apply to all hazardous waste Part B ~~applicants~~~~[applications]~~ seeking initial permits for hazardous waste management.

(b) The requirements of this section shall also apply to hazardous waste Part B ~~applicants~~~~[applications]~~ seeking renewal of permits for ~~[such]~~ units under ~~[Section 6 of]~~ 401 KAR 38:040, ~~Section 6~~. The requirements of this section ~~shall~~~~[do]~~ not apply to permit modifications under ~~[Section 3 of]~~ 401 KAR 38:040, ~~Section 3~~, or permit applications submitted for the sole ~~purpose~~~~[purpose]~~ of conducting postclosure activities or postclosure activities and corrective action at a facility.

(2) Notification at application submittal.

(a) The cabinet shall provide public notice as ~~established~~~~[set forth]~~ in Section 7(3) of this administrative regulation, that a Part B permit application has been submitted to the cabinet and is available for review.

(b) The notice shall be published within a reasonable period of time after the application is received by the cabinet. The notice shall include:

1. The name and telephone number of the applicant's contact person;

2. The name and telephone number of the cabinet's contact office, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

3. An address to which people ~~may~~~~[can]~~ write in order to be put on the facility mailing list;

4. The location where copies of the permit application and any supporting documents ~~may~~~~[can]~~ be viewed and copied;

5. A brief description of the facility and proposed operations, including the address or a map (for example, a sketched or copied street map) of the facility location on the front page of the notice; and

6. The date that the application was submitted.

(3) Concurrent with the notice required under subsection (2) of this section, the cabinet shall place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601.

Section 16. Information Repository. (1) Applicability. The requirements of this section ~~shall~~ apply to ~~applicants~~~~[applications]~~ seeking permits for hazardous waste management units.

(2)(a) The cabinet may assess the need, on a case-by-case basis, for an information repository.

(b) ~~If~~~~[When]~~ assessing the need for an information repository, the cabinet shall consider a variety of factors, including:

1. The level of public interest;

2. The type of facility;

3. The presence of an existing repository; and

4. The proximity to the nearest copy of the administrative record.

(c) If the cabinet determines, at any time after submittal of a permit application, that there is a need for a repository, the cabinet shall notify the facility that the facility shall establish and maintain an information repository. ~~[(See Section 1[(13)] of 401 KAR 38:030 for similar provisions relating to the information repository during the life of a permit.)]~~

(3) The information repository shall contain all documents, reports, data, and information ~~required~~~~[deemed necessary by the cabinet]~~ to fulfill the purposes for which the repository is established. ~~[The cabinet shall have the discretion to limit the contents of the repository.]~~

(4)(a) The information repository shall be located and maintained at a site chosen by the facility.

(b) If the cabinet finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the cabinet shall specify a more appropriate site.

(5) The cabinet ~~and the facility shall agree upon specific~~~~[shall specify]~~ requirements for informing the public about the information repository. ~~[At a minimum,]~~ The cabinet shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

(6)(a) The facility owner or operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the cabinet.

(b) The cabinet may close the repository ~~[at its discretion,]~~ based on the factors in subsection (2) of this section.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:060. Special types of permits.

RELATES TO: KRS ~~Subchapters~~ 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 40 C.F.R. 270 Subpart F
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 ~~[, 40 C.F.R. 270 Subpart F]~~

NECESSITY, FUNCTION, AND CONFORMITY: ~~[This administrative regulation implements]~~ ~~[To implement]~~ ~~[provisions of]~~ KRS ~~[224.40-305 and]~~ 224.46-520 **requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation** ~~and]~~ ~~establishes~~ ~~[to establish]~~ standards for special types of permits. ~~This administrative regulation is equivalent to the corresponding federal regulations; except Section 1 of this administrative regulation~~ ~~[regulations]~~ requires an annual report instead of the biennial report required by 40 ~~[the]~~ C.F.R. 270.60(a)(3)(v). ~~Section 2 of this administrative regulation~~ ~~[regulations]~~ requires all waste be removed to a properly permitted hazardous waste facility at the conclusion of an emergency permit in order to be exempt from certain financial requirements and implements provisions for legal recourse on the part of the state due to failure of a facility to comply with the provisions of an emergency permit, Section 3 of this administrative regulation **establishes a** ~~regulations implements an additional]~~ requirement to include the results of the trial burn in the permit and **establishes** ~~implements additional]~~ requirements for issuance of a trial burn permit, and Section 4 of this administrative regulation **establishes** ~~regulations implements additional]~~ requirements for the issuance of land treatment demonstration permits.

Section 1. Permit-by-Rule ~~Permit-by-Rule]. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 270.60, effective July 1, 2005~~ ~~[with the modifications, exceptions, and additions that are set forth in this section].~~

(2) The biennial report referenced in 40 C.F.R. 270.60(a)(3)(v) and 270.60(c)(3)(v) in the federal regulation referenced in subsection (1) of this section shall be replaced with the annual report incorporated by reference in 401 KAR 34:050, Section 6.

~~(3) The biennial report referenced in 40 C.F.R. 270.60(c)(3)(v) in the federal regulation referenced in subsection (1) of this section shall be replaced with the Annual Report incorporated by reference in 401 KAR 34:050, Section 6.]~~

Section 2. Emergency Permits. (1) Except as provided in

subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.61, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) An emergency permit shall specify that all remaining hazardous waste and residues shall be removed at the end of the term of the emergency permit to a properly permitted hazardous waste site or facility in order to be exempted from the financial requirements of 401 KAR 34:080, Section 1.

(3) An emergency permit shall specify that failure to comply with the conditions of the emergency permit shall cause the cabinet to sue for the recovery of the cost of proper closure. The permittee shall comply with the closure performance standards established in 401 KAR 34:070, Section 2. The fines and penalties established in KRS Chapter 224 shall be paid as required [see 401 KAR 34:070, Section 2, for closure performance standards and KRS Chapter 224 for the appropriate fines and penalties].

Section 3. Hazardous Waste Incinerator Permits. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.62, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Collection of trial burn data, referenced in 40 C.F.R. 270.62(b)(9), shall be included with Part B of the permit application, as established [specified] in 401 KAR 38:070, Sections 9 and 10; and this administrative regulation[, if a permit application is submitted].

(3)(a) In accordance with 401 KAR 34:080, prior to issuance of a trial burn permit, the applicant shall establish financial assurance sixty (60) days before the date on which hazardous waste is first received for treatment or storage.

(b) The amount of financial assurance established for closure shall be in accordance with the closure plan prepared pursuant to 401 KAR 34:070 and 34:240.

Section 4. Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 270.63, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A permittee shall not [No permits shall] be issued [under this section] unless the owner or operator has established adequate financial responsibility as specified in 401 KAR 34:080 to 34:120.

Section 5. Interim Permits for UIC Wells. The subject matter shall be governed by 40 C.F.R. 270.64, effective July 1, 2005.

Section 6. Research, Development, and Demonstration Permits. The subject matter shall be governed by 40 C.F.R. 270.65, effective July 1, 2005.

Section 7. Permits for Boilers and Industrial Furnaces Burning Hazardous Waste. The subject matter shall be governed by 40 C.F.R. 270.66, effective July 1, 2005.

[Section 1. Permit by Rule. Notwithstanding any other provision of this chapter the following shall be deemed to have a permit by rule if the conditions listed are met:

(1) Ocean disposal barges or vessels. The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(a) Has a permit for ocean disposal issued by the EPA;

(b) Complies with the conditions of that permit; and

(c) Complies with the following hazardous waste administrative regulations:

1. Section 2 of 401 KAR 34:020, Identification Number;

2. Section 2 of 401 KAR 34:050, Use of Manifest System;

3. Section 3 of 401 KAR 34:050, Manifest Discrepancies;

4. Section 4(1) and (2)(a) of 401 KAR 34:050, Operating Record;

5. Section 6(1) and (2)(a) of 401 KAR 34:050, Annual Report;

and

6. Section 7 of 401 KAR 34:050, Unmanifested Waste Report.

(2) Injection wells. The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(a) Has a permit for underground injection issued by the U.S. EPA under 40 C.F.R. Part 144 or 145;

(b) Complies with the conditions of that permit and the requirements of 40 C.F.R. 144.14 (wells managing hazardous waste);

(c) For UIC permits issued after November 8, 1984:

1. Complies with Section 12 of 401 KAR 34:060; and

2. Where the UIC well is the only unit at a facility which requires a hazardous waste site or facility permit, complies with Section 3 of 401 KAR 38:100.

(d) Complies with the requirements of 401 KAR 38:500, if applicable.

(3) Publicly owned treatment works (POTW). The owner or operator of a POTW which accepts hazardous waste for treatment, if the owner

or operator:

(a) Has an NPDES permit or a KPDES permit issued under the authorized program;

(b) Complies with the conditions of that permit; and

(c) Complies with the following administrative regulations:

1. Section 2 of 401 KAR 34:020, Identification Number;

2. Section 2 of 401 KAR 34:050, Use of Manifest System;

3. Section 3 of 401 KAR 34:050, Manifest Discrepancies;

4. Section 4(1) and (2)(a) of 401 KAR 34:050, Operating Record;

5. Section 6 of 401 KAR 34:050, Annual Report;

6. Section 7 of 401 KAR 34:050, Unmanifested Waste Report; and

7. For NPDES or KPDES permits issued after November 8, 1984, Section 12 of 401 KAR 34:060, Corrective action.

(d) If the waste meets all federal, state, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

(4) Elementary neutralization units. The owner or operator of an elementary neutralization unit which accepts hazardous waste for treatment, if the owner or operator complies with the national pretreatment standards (see Section 9 of 401 KAR 5:055).

(5) Wastewater treatment units. The owner or operator of a wastewater treatment unit which accepts hazardous waste for treatment, if the owner or operator:

(a) Has a NPDES permit or a KPDES permit; and

(b) Complies with the conditions of the permit.

Section 2. Emergency Permits. (1) Notwithstanding any other provision of this chapter, in the event the cabinet finds an imminent and substantial endangerment to human health or the environment, the cabinet may issue an emergency permit to allow temporary treatment, storage, or disposal of hazardous waste for a non-permitted facility, thus, granting the nonpermitted facility an effective temporary hazardous waste site or facility permit. An emergency permit shall be granted when the cabinet has issued an emergency order to discontinue, abate or alleviate pursuant to KRS 224.10-410, if applicable. However, an emergency permit may be issued whenever an imminent and substantial endangerment to human health and the environment exists, but the circumstances of the situation render an order for discontinuance, abatement or alleviation inappropriate.

(2) This emergency permit:

(a) May be oral or written. If oral, it shall be followed in five (5) days by a written emergency permit.

(b) Shall not exceed ninety (90) days in duration.

(c) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal.

(d) May be terminated by the cabinet at any time without process if the cabinet determines that termination is appropriate to protect human health and the environment.

(e) Shall be accompanied by a public notice published under Section 7(2) of 401 KAR 38:050 including:

1. Name and address of the office granting the emergency authorization;
2. Name and location of the permitted hazardous waste site or facility;
3. A brief description of the wastes involved;
4. A brief description of the action authorized and reasons for authorizing it; and
5. Duration of the emergency permit.

(f) Shall incorporate to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this chapter, and 401 KAR Chapter 34 and 401 KAR 30:030.

(g) Shall specify that all remaining hazardous waste and residues are removed at the end of the term of the emergency permit to a properly permitted hazardous waste site or facility in order to be exempted from the financial requirements of Section 1 of 401 KAR 34:080.

(h) Shall specify that failure to comply with the conditions of the emergency permit will cause the cabinet to sue for the recovery of the cost of proper closure (see Section 2 of 401 KAR 34:070 for closure performance standards and KRS Chapter 224 for the appropriate fines and penalties).

Section 3. Hazardous Waste Incinerator Permits. (1) For the purposes of determining operational readiness following completion of physical construction, the cabinet shall establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to bring the incinerator to a point of operational readiness sufficient to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The cabinet may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section 3 of 401 KAR 38:040 (minor modifications of permits).

(a) Applicants shall submit a statement, with Part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of Section 4 of 401 KAR 34:240 during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in Section 6 of 401 KAR 34:240.

(b) The cabinet shall review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Section 4 of 401 KAR 34:240 based on engineering judgment.

(2) For the purposes of determining feasibility of compliance with the performance standards of Section 4 of 401 KAR 34:240 and of determining adequate operating conditions under Section 6 of 401 KAR 34:240, the cabinet shall establish conditions in the permit to a new hazardous waste incinerator to be effective during the trial burn.

(a) Applicants shall propose a trial burn plan, prepared in accordance with paragraph (b) of this subsection, with Part B of the permit application.

(b) The trial burn plan shall include the following information:

1. An analysis of each waste or mixture of wastes to be burned which includes:

a. Heat value of the waste in the form and composition in which it will be burned.

b. Viscosity (if applicable) or description of physical form of the waste.

c. An identification of any hazardous organic constituents listed in 401 KAR 31:170, which are present in waste to be burned, except that the applicant need not analyze for constituents listed in 401 KAR 31:170, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion stated. The waste analysis shall rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", or other equivalent analytical techniques.

d. An approximate quantification of the hazardous constituents

identified in the waste, within the precision produced by the analytical methods specified in the "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", or other equivalent analytical methods.

2. A detailed engineering description of the incinerator for which the trial burn permit is sought including:

a. Manufacturer's name and model number of incinerator (if available);

b. Type of incinerator;

c. Linear dimensions of the incinerator unit including the cross sectional area of the combustion chamber;

d. Description of the auxiliary fuel system (type/feed);

e. Capacity of prime mover;

f. Description of automatic waste feed cutoff system(s);

g. Stack gas monitoring and pollution control equipment;

h. Nozzle and burner design;

i. Construction materials; and

j. Location and description of temperature, pressure, and flow indicating and control devices.

3. A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

4. A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the cabinet's decision under paragraph (e) of this subsection.

5. A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

6. A description of, and planned operating conditions for, any emission control equipment which will be used.

7. Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

8. Such other information as the cabinet reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subsection and the criteria in paragraph (e) of this subsection.

(c) The cabinet, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this subsection.

(d) Based on the waste analysis data in the trial burn plan, the cabinet shall specify as trial Principal Organic Hazardous Constituents (trial POHC's), those constituents for which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHC's shall be specified by the cabinet based on the estimate of the difficulty of incineration of the constituents identified in the waste analysis, the concentration or mass in the waste feed, and, for wastes listed in 401 KAR 31:040, the hazardous waste constituent or constituents identified in 401 KAR 31:160 as the basis for listing.

(e) The cabinet shall approve a trial burn plan if it finds that:

1. The trial burn is likely to determine whether the incinerator performance standards required by Section 4 of 401 KAR 34:240 can be met;

2. The trial burn itself shall not present an imminent hazard to human health or the environment;

3. The trial burn shall help the cabinet to determine operating requirements to be specified under Section 6 of 401 KAR 34:240; and

4. The information sought in subparagraph 1 and 2 of this paragraph cannot reasonably be developed through other means.

(f) The cabinet shall send a notice to all persons on the facility mailing list and the appropriate units of state and local government as set forth in Section 7(3) of 401 KAR 38:050 announcing the scheduled commencement and completion dates for the trial burn. The applicant shall not commence the trial burn until after the cabinet has issued such notice.

1. This notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required

if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

2. This notice must contain:

a. The name and telephone number of the applicant's contact person;

b. The name and telephone number of the permitting agency's contact person;

c. The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

d. An expected time period for commencement and completion of the trial burn.

(g) During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:

1. A quantitative analysis of the trial POHC's in the waste feed to the incinerator;

2. A quantitative analysis of the exhaust gas to determine the concentration and mass emissions of the trial POHC's, oxygen (O₂), and hydrogen chloride (HCl);

3. A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHC's;

4. A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Section 4(1) of 401 KAR 34:240;

5. If the HCl emission rate exceeds one and eight tenths (1.8) kilograms of HCl per hour (four (4) pounds per hour), a computation of HCl removal efficiency in accordance with Section 4(2) of 401 KAR 34:240;

6. A computation of particulate emissions, in accordance with Section 4(3) of 401 KAR 34:240;

7. An identification of sources of fugitive emissions and their means of control;

8. A measurement of average, maximum, and minimum temperatures, and combustion gas velocity;

9. A continuous measurement of carbon monoxide (CO) in the exhaust gas; and

10. Such other information as the cabinet may specify as necessary to ensure that the trial burn will determine compliance with the performance standard in Section 4 of 401 KAR 34:240 and to establish the operating conditions required in Section 6 of 401 KAR 34:240 to meet that performance standard.

(h) The applicant shall submit to the cabinet a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in paragraph (f) of this subsection. This submission shall be made within ninety (90) days of the completion of the trial burn, or later if approved by the cabinet.

(i) All data collected during any trial burn shall be submitted to the cabinet following the completion of the trial burn. The results of the trial burn shall be included with Part B of the permit application as specified in Sections 9 and 10 of 401 KAR 38:070 and this administrative regulation, if a permit application is submitted.

(j) All submissions required by this subsection shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section 7 of 401 KAR 38:070.

(k) Based on the results of the trial burn, the cabinet shall set the operating requirements in the final permit according to Section 6 of 401 KAR 34:240. The permit modification shall proceed as a minor modification according to Section 3 of 401 KAR 38:040.

(3) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the cabinet may establish permit conditions, including but not limited to allowable waste feeds and operating conditions, sufficient to meet the requirements of Section 6 of 401 KAR 34:240, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the cabinet.

(a) Applicants shall submit a statement, with Part B of the permit application, which identifies the conditions necessary to oper-

ate in compliance with the performance standards of Section 4 of 401 KAR 34:240, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in Section 6 of 401 KAR 34:240.

(b) The cabinet shall review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of Section 4 of 401 KAR 34:240, based on engineering judgment.

(4) For the purposes of determining feasibility of compliance with the performance standards of Section 4 of 401 KAR 34:240 and of determining adequate operating conditions under Section 6 of 401 KAR 34:240, the applicant for a permit for an existing hazardous waste incinerator shall prepare and submit a trial burn plan and perform a trial burn in accordance with 401 KAR 38:190, Section 2, and subsections (2)(b) to (i) of this section or, instead, submit other information as specified in Section 2(3) of 401 KAR 38:190. The cabinet shall announce its intention to approve the trial burn plan in accordance with the timing and distribution requirements of subsection (2)(f) of this section. The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the cabinet; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for cabinet approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under Section 2(1) of 401 KAR 38:190 are exempt from compliance with Sections 4 and 6 of 401 KAR 34:240 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application shall complete the trial burn and submit the results, specified in subsection (2)(f) of this section, with Part B of the permit application. If completion of this process conflicts with the date set for the submission of the Part B application, the applicant shall contact the cabinet to establish a later date for submission of the Part B application or the trial burn results. Trial burn results shall be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with Part B of the permit application, the cabinet shall specify a time period prior to permit issuance in which the trial burn shall be conducted and the results submitted.

(5) In accordance with Section 3 of 401 KAR 34:080, prior to issuance of a trial burn permit, the applicant shall establish financial assurance sixty (60) days before the date on which hazardous waste is first received for treatment or storage. The amount of financial assurance established for closure shall be in accordance with the closure plan prepared pursuant to 401 KAR 34:070 and 34:240.

Section 4. Permits for Land Treatment Demonstrations Using Field Tests or Laboratory Analyses. (1) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of Section 3 of 401 KAR 34:220, the cabinet may issue a treatment demonstration permit. The permit shall contain only those requirements necessary to meet the standards in Section 3(3) of 401 KAR 34:220. The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two (2) phase facility permit covering the field tests, or laboratory analyses, and design, construction, operation and maintenance of the land treatment unit.

(a) The cabinet may issue a two (2) phase facility permit if it is found that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(b) If the cabinet finds that not enough information exists upon which it can establish permit conditions to attempt to provide for compliance with all of the requirements of 401 KAR 34:220, the cabinet shall issue a treatment demonstration permit covering only the field test or laboratory analyses.

(2) If the cabinet finds that a phased permit may be issued, it shall establish, as requirements in the first phase of the facility permit, conditions for conducting the field test or laboratory analy-

ses. These permit conditions shall include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, postdemonstration cleanup activities, and any other conditions which the cabinet finds may be necessary under Section 3(3) of 401 KAR 34:220. The cabinet shall include conditions in the second phase of the facility permit to attempt to meet all of 401 KAR 34:220 requirements pertaining to unit design, construction, operation, and maintenance. The cabinet shall establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(a) The first phase of the permit shall be effective as specified by the cabinet in the permit.

(b) The second phase of the permit shall be effective as provided in subsection (4) of this section.

(3) When the owner or operator who has been issued a two (2) phase permit has completed the treatment demonstration, he shall submit to the cabinet a certification, signed by a person authorized to sign a permit application or report under Section 7 of 401 KAR 38:070, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in the first phase of the permit for conducting such tests or analyses. The owner or operator shall also submit all data collected during the field tests or laboratory analyses within ninety (90) days of completion of those tests or analyses unless the cabinet approves a later date.

(4) If the cabinet determines that the results of the field tests or laboratory analyses meet the requirements of Section 3 of 401 KAR 34:220, it shall modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with 401 KAR 34:220, based upon the results of the field tests or laboratory analyses.

(a) This permit modification may proceed as a minor modification under Section 3 of 401 KAR 38:040, provided any such change is minor, or otherwise shall proceed as a modification under Section 2(1)(b) of 401 KAR 38:040.

(b) If no modifications of the second phase of the permit are necessary, or if only minor modifications are necessary and have been made, the cabinet shall give notice of the final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of final decision on the second phase of the permit. The second phase of the permit then shall become effective as specified by the cabinet in Section 12 of 401 KAR 38:050.

(c) If modifications under Section 2(1)(b) of 401 KAR 38:040 are necessary, the second phase of the permit shall become effective only after those modifications have been made.

(5) No permits shall be issued under this section unless the owner or operator has established adequate financial responsibility as specified in 401 KAR 34:080 to 34:176.

Section 5. Interim Permits for UIC Wells. The cabinet may issue a permit under this section to any Class I UIC well injecting hazardous wastes within the state, if no UIC program has been approved by the EPA for Kentucky. Any such permit shall apply and insure compliance with all applicable requirements of 401 KAR Chapter 34 and 401 KAR 38:500 and shall be for a term not to exceed two (2) years. No such permit shall be issued after approval or promulgation of a UIC program in Kentucky. Any permit under this section shall contain a condition providing that it shall terminate upon final action by the cabinet under a UIC program to issue or deny a UIC permit for the facility.

Section 6. Research, Development, and Demonstration Permits. (1) The cabinet may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 401 KAR Chapters 34 or 36. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(a) Shall provide for the construction of such facilities as nec-

essary, and for operation of the facility for not longer than one (1) year unless renewed as provided in subsection (4) of this section; and

(b) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the cabinet deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment; and

(c) Shall include such requirements as the cabinet deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as the cabinet deems necessary regarding testing and providing of information to the cabinet with respect to the operation of the facility.

(2) For the purpose of expediting review and issuance of permits under this section, the cabinet may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements in 401 KAR Chapter 38 except that there may be no modification or waiver of provisions in KRS Chapter 224 regarding financial responsibility (including insurance) or of procedures regarding public participation.

(3) The cabinet may order an immediate termination of all operations at the facility at any time it is determined that termination is necessary to protect human health and the environment.

(4) Any permit issued under this section may be renewed not more than three (3) times. Each such renewal shall be for a period of not more than one (1) year.

Section 7. Permits for Boilers and Industrial Furnaces Burning Hazardous Waste. (1) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of Section 4 of 401 KAR 36:020) are subject to subsections (2) to (6) of this section. Boilers and industrial furnaces operating under the interim status standards of Section 4 of 401 KAR 36:020 are subject to subsection (7) of this section.

(2) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

(a) **Pretrial burn period.** For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the cabinet shall establish in the pretrial burn period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The cabinet may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section 3 of 401 KAR 38:040.

1. Applicants shall submit a statement, with part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of Sections 5 to 8 of 401 KAR 36:020 during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in Section 3(5) of 401 KAR 36:020.

2. The cabinet shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections 5 to 8 of 401 KAR 36:020 based on his engineering judgment.

(b) **Trial burn period.** For the duration of the trial burn, the cabinet shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of Sections 5 to 8 of 401 KAR 36:020 and determining adequate operating conditions under Section 3(5) of 401 KAR 36:020. Applicants shall propose a trial burn plan, prepared under subsection (3) of this section, to be submitted with part B of the permit application.

(c) **Posttrial burn period.**

1. For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results

by the applicant, and review of the trial burn results and modification of the facility permit by the cabinet to reflect the trial burn results, the cabinet shall establish the operating requirements most likely to ensure compliance with the performance standards of Sections 5 to 8 of 401 KAR 36:020 based on his engineering judgment.

2. Applicants shall submit a statement, with part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of Sections 5 to 8 of 401 KAR 36:020. This statement shall include, at a minimum, restrictions on the operating requirements provided by Section 3(5) of 401 KAR 36:020.

3. The cabinet shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections 5 to 8 of 401 KAR 36:020 based on his engineering judgment.

(d) Final permit period. For the final period of operation, the cabinet shall develop operating requirements in conformance with Section 3(5) of 401 KAR 36:020 that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of Sections 5 to 8 of 401 KAR 36:020. Based on the trial burn results, the cabinet shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification shall proceed according to Section 3 of 401 KAR 38:040.

(3) Requirements for trial burn plans. The trial burn plan shall include the following information. The cabinet, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this subsection:

(a) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes:

1. Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

2. Viscosity or description of the physical form of the feed stream;

(b) An analysis of each hazardous waste, as fired, including:

1. An identification of any hazardous organic constituents listed in 401 KAR 31:170, that are present in the feed stream, except that the applicant need not analyze for constituents listed in 401 KAR 31:170, that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for this exclusion explained. The analysis shall be conducted in accordance with analytical techniques specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, or their equivalent.

2. An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in test methods for evaluating solid waste, physical/chemical methods, or other equivalent.

3. A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

(c) A detailed engineering description of the boiler or industrial furnace, including:

1. Manufacturer's name and model number of the boiler or industrial furnace;

2. Type of boiler or industrial furnace;

3. Maximum design capacity in appropriate units;

4. Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;

5. Capacity of hazardous waste feed system;

6. Description of automatic hazardous waste feed cutoff system(s);

7. Description of any pollution control system; and

8. Description of stack gas monitoring and any pollution control monitoring systems.

(d) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

dures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(e) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the cabinet's decision under subsection (2)(b) of this section.

(f) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in Sections 5 to 8 of 401 KAR 36:020.

(g) A description of, and planned operating conditions for, any emission control equipment that will be used.

(h) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

(i) Such other information as the cabinet reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subparagraph and the criteria in subsection (2)(b) of this section.

(4) Trial burn procedures.

(a) A trial burn shall be conducted to demonstrate conformance with the standards of Sections 5 to 8 of 401 KAR 36:020 under an approved trial burn plan.

(b) The cabinet shall approve a trial burn plan if it finds that:

1. The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of Sections 5 to 8 of 401 KAR 36:020;

2. The trial burn itself will not present an imminent hazard to human health and the environment;

3. The trial burn will help the cabinet to determine operating requirements to be specified under Section 3(5) of 401 KAR 36:020; and

4. The information sought in the trial burn cannot reasonably be developed through other means.

(c) The cabinet shall send a notice to all persons on the facility mailing list and the appropriate units of state and local governments as set forth in Section 7(3) of 401 KAR 38:050 announcing the scheduled commencement and completion dates for the trial burn. The applicant shall not commence the trial burn until after the cabinet has issued such notice.

1. This notice shall be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the cabinet.

2. This notice shall contain:

a. The name and telephone number of the applicant's contact person;

b. The name and telephone number of the permitting agency contact person;

c. The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

d. An expected time period for commencement and completion of the trial burn.

(d) The applicant shall submit to the cabinet a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in subsection (3) of this section. This submission shall be made within ninety (90) days of completion of the trial burn, or later if approved by the cabinet.

(e) All data collected during any trial burn shall be submitted to the cabinet following completion of the trial burn.

(f) All submissions required by this subsection shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section 7 of 401 KAR 38:070.

(5) Special procedures for destruction and removal efficiency (DRE) trial burns. When a destruction and removal efficiency (DRE) trial burn is required under Section 5(1) of 401 KAR 36:020, the cabinet shall specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial principal organic hazardous constituents (POHCs) those compounds for

which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHCs shall be specified by the cabinet based on information including its estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in 401 KAR 31:040, the hazardous waste organic constituent(s) identified in 401 KAR 31:160 as the basis for listing.

(6) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:

(a) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);

(b) When a DRE trial burn is required under Section 5(1) of 401 KAR 36:020:

1. A quantitative analysis of the trial POHCs in the hazardous waste feed;

2. A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

3. A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Section 5(1) of 401 KAR 36:020.

(c) When a trial burn for chlorinated dioxins and furans is required under Section 5(5) of 401 KAR 36:020, a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra-octa congeners of chlorinated dibenzo-p dioxins and furans, and a computation showing conformance with the emission standard.

(d) When a trial burn for particulate matter, metals, or HCl/Cl₂ is required under Sections 6, 7(3) or (4), 8(2)(b) or (3) of 401 KAR 36:020, a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl₂), and computations showing conformance with the applicable emission performance standards;

(e) When a trial burn for DRE, metals, or HCl/Cl₂ is required under Sections 5(1), 7(3) or (4), or 8(2)(b) or (3) of 401 KAR 36:020, a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

(f) An identification of sources of fugitive emissions and their means of control;

(g) A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

(h) Such other information as the cabinet may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in Sections 5 to 8 of 401 KAR 36:020 and to establish the operating conditions required by Section 3(5) of 401 KAR 36:020 as necessary to meet those performance standards.

(7) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of Sections 5 to 8 of 401 KAR 36:020 and of determining adequate operating conditions under Section 4 of 36:020, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of Section 4 of 401 KAR 36:020 shall either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of this section or submit other information as specified in Section 1(f) of 401 KAR 38:260. The cabinet shall announce its intention to approve of the trial burn plan in accordance with the timing and distribution requirements of subsection (4)(c) of this section. The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact person at the permitting agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for cabinet approval of the plan and the time periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the part B permit application shall complete the trial burn and submit the results specified in subsection (6) of this section with the part B permit

application. If completion of this process conflicts with the date set for submission of the part B application, the applicant shall contact the cabinet to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn shall be conducted and the results submitted within a time period prior to permit issuance to be specified by the cabinet.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:070. Application procedures.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 224.99, 15 U.S.C. 2601 et seq.

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[, 15 U.S.C. 2601 et seq.]

NECESSITY, FUNCTION, AND CONFORMITY: KRS [224.40-305 and] 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose [require any person who treats, stores, recycles or disposes] of hazardous waste [to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:040]. This administrative regulation establishes the application procedures. This administrative regulation is equivalent to the corresponding federal regulations, except Section 1[.] of this administrative regulation establishes that [specifies there are] additional copies of a permit application shall [to] be submitted, Section 2 of this administrative regulation establishes [implements additional] requirements for closing a facility, and Section 3 of this administrative regulation requires local board approval for disposal facilities.

Section 1. General Application Requirements. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.10(b) through (d), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this administrative regulation].

(2) Permit application.

(a) A person [Any person who is] required to have a permit [including new applicants and permittees with expiring permits] shall complete, sign, and submit an application to the cabinet as required by [described in] Sections 1 through 6 of this administrative regulation and 401 KAR 38:020.

(b) A person [Persons] currently authorized with interim status as established in [under] 401 KAR 38:020 shall apply for a permit [if] [permits when] required by the cabinet.

(c) A person covered by permits-by-rule [Persons covered by permits by rule], 401 KAR 38:060, Section 1, shall not be required to apply, [need not apply] except as required by 401 KAR 38:500 for disposal facilities permitted by rule.

(d) The procedures for applications, issuance, and administration of emergency permits established in [are found exclusively in] 401 KAR 38:060, Section 2, shall be followed.

(e) The [.] procedures for application issuance and administration of research, development, and demonstration permits established [are found exclusively] in 401 KAR 38:060, Section 6, shall be followed.

(3) Number of copies.

(a) A [Any] person who requires a hazardous waste site or facility permit shall submit the original application plus one (1) copy of the application.

(b) For applications subject to the requirements of 401 KAR 38:190, 38:210, 38:230, or 36:020, the original application plus two (2) copies shall be [is] required. The cabinet may also request up to seven (7) additional copies of the application, if needed for public review.

Section 2. Existing Hazardous Waste Sites or Facilities and Interim Status Qualifications. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.10(e), effective July 1, 2005[–with the modifications, exceptions, and additions that are set forth in this administrative regulation].

(2) Owners or operators of existing hazardous waste sites or facilities which close under interim status without submitting Part B of the permit application shall, at a minimum, comply with the corrective action requirements in [ef] 401 KAR 34:060, Section 12.

(3) The citation to Section 3008 of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with KRS 224.46-530.

Section 3. New Hazardous Waste Sites or Facilities. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 270.10(f), effective July 1, 2005[–with the modifications, exceptions, and additions that are set forth in this administrative regulation].

(2) An application for a permit for a new hazardous waste disposal facility shall be in compliance with the requirements specified in KRS 224.46-520 and 401 KAR 38:500 regarding approval by the local government or the Kentucky Regional Integrated Waste Treatment and Disposal Facility Siting Board.

(3) The citation to Subtitle C of RCRA in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR Chapter 31[KRS 224.46-510(3) and the regulations promulgated pursuant thereto].

Section 4. Updating Permit Applications. The subject matter shall be governed by 40 C.F.R. 270.10(g), effective July 1, 2005.

Section 5. Reapplications. The subject matter shall be governed by 40 C.F.R. 270.10(h), effective July 1, 2005.

Section 6. Recordkeeping. [(+) The subject matter shall be governed by 40 C.F.R. 270.10(i), effective July 1, 2005.

Section 7. Signatures to Permit Applications and Reports. The subject matter shall be governed by 40 C.F.R. 270.11, effective July 1, 2005.

Section 8. Confidentiality of Information. (1)(a) Claims of confidentiality. In accordance with KRS 224.10-212 [(Public Information)] and 400 KAR 1:060, [any] information submitted to the cabinet pursuant to 401 KAR Chapters 30 to 38, 43, and 44[these administrative regulations] may be claimed as confidential by the submitter.

(b) A claim of confidentiality shall be asserted with the[any such claim shall be asserted at the time of] submission in the manner prescribed on the application form or instructions or, [if in the case of] other submissions, by stamping the words, "confidential business information", on each page containing confidential[such] information.

(c) If a [if no] claim is not made with the[made at the time of] submission, the cabinet may make the information available to the public without further notice.

(d) If a claim is asserted, the information shall[will] be treated in accordance with the procedures [in KRS 224.10-212] [(Public Information)] and other provisions of this section and 401 KAR 38:050 [any other provision] of the waste management administrative regulations relating to confidentiality of information.

(2) Denial of claims of confidentiality. Claims that the name and address of any permit applicant or permittee is confidential shall[will] be denied.

Section 9. Exposure Information. (1) Except as provided in subsection (2) of this section, the subject matter shall be gov-

erned by 40 C.F.R. 270.10(j), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this administrative regulation].

(2) Information required by this section may in part satisfy the requirements of KRS 224.46-520(1) and 401 KAR 38:090, Section 2.

Section 10. Additional Information. The subject matter shall be governed by 40 C.F.R. 270.10(k), effective July 1, 2005.

[Section 1. General Application Requirements. (1) Permit application. Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the cabinet as described in Sections 1 through 6 of this administrative regulation and 401 KAR 38:020. Persons currently authorized with interim status under 401 KAR 38:020 shall apply for permits when required by the cabinet. Persons covered by permits by rule, Section 1 of 401 KAR 38:060, need not apply except as required by 401 KAR 38:500 for disposal facilities permitted by rule. Procedures for applications, issuance and administration of emergency permits are found exclusively in Section 2 of 401 KAR 38:060. Procedures for application issuance and administration of research, development, and demonstration permits are found exclusively in Section 6 of 401 KAR 38:060.

(2) Applicant; who applies. When a facility or activity is owned by one (1) person but is operated by another person, it is the operator's duty to obtain a permit, and the owner shall also sign the permit application.

(3) Completeness. The cabinet shall not issue a permit before receiving a complete application for a permit except for permits by rule or emergency permits. An application for a permit is complete when the cabinet receives an application form and any supplemental information which are completed to the satisfaction of the cabinet. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in Section 9 of this administrative regulation. However, failure by the applicant to submit exposure information may be grounds for denial of the permit or revocation of an issued permit. The cabinet may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(4) Information requirements. All applicants for permits shall provide the applicable information in compliance with 401 KAR 38:080 through 401 KAR 38:270 to the cabinet, using the application form provided by the cabinet.

(5) Number of copies. Any person who requires a hazardous waste site or facility permit shall submit two (2) copies of the application. If the application for a permit includes an incinerator or a facility which requires groundwater monitoring, three (3) copies of the application shall be submitted to the cabinet. Additional copies may be required prior to permit issuance.

Section 2. Existing Hazardous Waste Sites or Facilities and Interim Status Qualifications. (1) Owners or operators of existing hazardous waste sites or facilities or of hazardous waste sites or facilities in existence on the effective date of statutory or regulatory amendments that render the facility subject to the requirement to have a permit shall submit Part A of their permit application or its equivalent (Registration of Intent to Apply for a Permit) to the cabinet no later than:

(a) Six (6) months after the date of publication of administrative regulations which first require them to comply with the standards set forth in 401 KAR Chapters 35 or 36; or

(b) Thirty (30) days after the date they first become subject to the standards set forth in 401 KAR Chapters 35 or 36, whichever first occurs.

(2) The cabinet may extend the date by which owners and operators of specified classes of existing hazardous waste management facilities shall submit Part A of their permit application or its equivalent if the cabinet finds that:

(a) There has been substantial confusion as to whether the owners and operators of such facilities were required to file a permit application; and

(b) Such confusion is attributable to ambiguities in the waste

management administrative regulations.

(3) The cabinet may by compliance order extend the date by which the owner and operator of an existing hazardous waste site or facility shall submit Part A of their permit application or its equivalent.

(4) The owner or operator of an existing hazardous waste site or facility may be required to submit Part B of the permit application. Any owner or operator shall be allowed at least six (6) months from the date of request to submit Part B of the application. Any owner or operator of an existing hazardous waste site or facility may voluntarily submit Part B of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste site or facility shall submit a Part B permit application in accordance with the dates specified in Section 4 of 401 KAR 38:020. Any owner or operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments that render the facility subject to the requirement to have a hazardous waste site or facility permit shall submit a Part B application in accordance with the dates specified in Section 4 of 401 KAR 38:020.

(5) Failure to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status under 401 KAR 38:050.

(6) Owners or operators of existing hazardous waste sites or facilities which close under interim status without submitting Part B of the permit application shall, at a minimum, comply with the corrective action requirements in Section 12 of 401 KAR 34:060.

Section 3. New Hazardous Waste Sites or Facilities. (1) Except as provided in subsection (3) of this section, no person shall begin physical construction of a new hazardous waste site or facility without having submitted Part A or its equivalent and Part B of the permit application and received an effective hazardous waste site or facility permit (see Section 12 of 401 KAR 38:050).

(2) An application for a permit for a new hazardous waste site or facility (including both Part A or its equivalent, and Part B) may be filed at any time after promulgation of the standards in 401 KAR 34:180 applicable to such facility. The application shall be filed with the cabinet. Except as provided in subsection (3) of this section, all applications shall be submitted at least 180 days before physical construction is expected to commence.

(3) Notwithstanding subsection (1) of this section, a person may construct a facility for the incineration of polychlorinated biphenyls pursuant to an approval issued by the Administrator of the U.S. Environmental Protection Agency under Section (6)(e) of 15 U.S.C. 2601-2655 (The Toxic Substances Control Act, as amended) and any person owning or operating such a facility may, at any time after construction or operation of such facility has begun, file an application for a permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under KRS 224.46-510(3) and the administrative regulations promulgated pursuant thereto.

(4) An application for a permit for a new hazardous waste disposal facility shall be in compliance with the requirements specified in KRS 224.46-520 and 401 KAR 38:500 regarding approval by the local government or the Kentucky Regional Integrated Waste Treatment and Disposal Facility Siting Board.

Section 4. Updating Permit Applications. (1) If any owner or operator of a hazardous waste site or facility has filed Part A of a permit application or its equivalent and has not yet filed Part B, the owner or operator shall file an amended Part A application or its equivalent with the cabinet:

(a) No later than the effective date of regulatory provisions listing or designating wastes as hazardous in addition to those listed or designated previously in 401 KAR Chapter 31, if the facility is treating, storing or disposing of any of the newly listed or designated waste; or

(b) As necessary to comply with Section 3 of 401 KAR 38:020 for changes during interim status.

(2) The owner or operator of a facility who fails to comply with the updating requirements of subsection (1) of this section does not receive interim status as to the wastes not covered by a duly filed Part A application or its equivalent.

Section 5. Reapplications. Any hazardous waste site or facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the cabinet. (The cabinet shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

Section 6. Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under Section 1(4) of this administrative regulation and 401 KAR 38:080 through 38:210, for a period of at least three (3) years from the date the application is signed.

Section 7. Signatures to Permit Applications and Reports. (1) Applications. All permit applications shall be signed as follows:

(a) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or

2. The manager of one (1) or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:

1. The chief executive officer of the agency; or

2. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (for example, regional administrators of EPA).

(2) Reports. All reports required by permits, and other information requested by the cabinet, shall be signed by a person described in subsection (1) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(a) The authorization is made in writing by a person described in subsection (1) of this section;

(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(c) The written authorization is submitted to the cabinet.

(3) Changes to authorization. If an authorization under subsection (2) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection (2) of this section shall be submitted to the cabinet prior to or together with any reports, information, or applications to be signed by an authorized representative.

(4) Certification. Any person signing a document under subsections (1) or (2) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Section 8. Confidentiality of Information. (1) Claims of confidentiality. In accordance with KRS 224.10-212 (Public Information)

and 400 KAR 1:060, any information submitted to the cabinet pursuant to these administrative regulations may be claimed as confidential by the submitter. Any such claim shall be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the cabinet may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in KRS 224.10-212 (Public Information) and any other provision of the waste management administrative regulations relating to confidentiality of information.

(2) Denial of claims of confidentiality. Claims that the name and address of one permit applicant or permittee is confidential will be denied.

Section 9. Exposure Information. (1) After August 8, 1985, any Part B application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or landfill shall be accompanied by information reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information shall address:

(a) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(b) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (a) of this subsection; and

(c) The potential magnitude and nature of the human exposure resulting from such releases.

(2) By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part B application shall submit the exposure information required in subsection (1) of this section.

(3) Information required by this section may in part satisfy the requirements of KRS 224.46-520(1) and Section 2(19) of 401 KAR 38:090.

Section 10. Additional Information. The cabinet may require a permittee or an applicant to submit information in order to establish permit conditions under Section 3 of 401 KAR 38:030 and Section 5 of 401 KAR 38:040.

Section 11. Permit Denial. The cabinet may, pursuant to the procedures of 401 KAR Chapter 38, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:080. Contents of Part A application.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.13

STATUTORY AUTHORITY: KRS 224.10-100[40-100], 224.46-520[, 40 C.F.R. 270.13]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous

waste[224.40-305 and 224.46-520 require any person who treats, stores, recycles or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:040]. This administrative regulation establishes the content of the Part A application. This administrative regulation is equivalent to corresponding federal regulations except Section 1 of this administrative regulation includes a form with specific language while 40 C.F.R. 270.13[wording, where the C.F.R.] allows the applicant to provide their own document with specified information. This administrative regulation[and] also includes additional information requirements for the Part A application. Section 2 of this administrative regulation adds specific conditions for revising a Part A application.

Section 1. Part A Application. Part A of the hazardous waste site or facility permit application or its equivalent (Registration of Intent to Apply for a Permit) shall be submitted on DEP Form 7058A **and shall include**[-, incorporated by reference in Section 3 of this administrative regulation and shall include the following information]:

(1) The activities conducted by the applicant which require [him to obtain] a hazardous waste site or facility permit under KRS Chapter 224;[-]

(2) **The** name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted;[-]

(3) Up to four (4) SIC (**Standard Industrial Classification**) codes which best reflect the principal products or services provided by the facility;[-]

(4) The operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity;[-]

(5) The name, address, and phone number of the owner of the facility;[-]

(6) [If the U.S. government identifies any Indian lands in Kentucky,] Whether the facility is located on **Indian lands in Kentucky as identified by the U.S. government**;[such Indian lands.]

(7) An indication of whether the facility is new or existing and whether it is a first or revised application;[-]

(8) For existing facilities:

(a) A scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and

(b) Photographs of the facility clearly delineating:

1. All existing structures;

2. Existing treatment, storage, and disposal areas; and

3. Sites of future treatment, storage, and disposal areas;[-]

(9) A description of the process to be used for treating, storing, and disposing of hazardous waste;[-] and the design capacity of these items;[-]

(10) **(a)** A specification of the hazardous wastes listed or designated under 401 KAR Chapter 31 to be treated, stored, or disposed **of at the facility**;

(b) **An estimate of the quantity of**[at the facility, an estimate of the quantity of such] wastes to be treated, stored, or disposed annually; **and**

(c)[-, and] A general description of the processes to be used for **these**[such] wastes;[-]

(11) A listing of all permits or construction approvals received or applied for under any of the following programs:

(a) Hazardous waste management program **as established in RCRA Subtitle C**;[under RCRA.]

(b) UIC program under the SWDA, **as established in 40 C.F.R. Parts 144 and 145**;[-]

(c) NPDES program under the CWA, **as established in 33 U.S.C. 1251 to 1387**, or the KPDES program under KRS Chapter 224 and as specified in 401 KAR 5:050 through **5:080**;[5:085.]

(d) Prevention of Significant Deterioration (PSD) **of air quality** program under KRS Chapter 224 and as specified in 401 KAR 51:017;[-]

(e) **Air quality** nonattainment program under KRS Chapter 224 and as specified in 401 KAR 51:052;[-]

(f) National Emission Standards for Hazardous Pollutants (NE-

SHAPS) preconstruction approval under KRS Chapter 224 and as specified in 401 KAR ~~57:002~~[Chapter 57.]

(g) Dredge or fill permits under Section 404 of the CWA, codified as 33 U.S.C. 1344; and[-]

(h) Other relevant environmental permits, including state permits.

(12) A topographic map (or other map if a topographic map is unavailable) extending one (1) mile beyond the property boundaries of this source, depicting:

(a) The facility and each of its intake and discharge structures;

(b) Each of its hazardous waste treatment, storage, or disposal facilities;

(c) Each well where fluids from the facility are injected underground; and

(d) Those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to be [applicant] within one-quarter (1/4) mile of the facility property boundary;[-]

(13) A brief description of the nature of the business; and[-]

(14) For hazardous debris, a description of the debris category and containment category to be treated, stored, or disposed of at the facility.

Section 2. Revised Part A Applications. (1) If any of the information required by Section 1(1), (2), (4), (5), (9), and (10) of this administrative regulation changes, the owner or operator shall submit a revised Part A application to the cabinet within sixty (60) days of the change.

(2) The changes shall be submitted on DEP Form 7058A[, incorporated by reference in Section 3 of this administrative regulation].

Section 3. Incorporation by Reference. (1) "Part A of the Kentucky Hazardous Waste Permit Application", DEP Form 7058A, [~~June, 1995,~~] is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, (502) 564-6716, Monday through Friday, 8 a.m. to 4:30 p.m.

(3) These documents may also be obtained from the Division of Waste Management's Web site[web page] located at: www.waste.ky.gov. [The Part A of the Kentucky Hazardous Waste Permit Application, DEP Form 7058A (June 1995), is hereby incorporated by reference in this administrative regulation. This form may be obtained from the Hazardous Waste Branch, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. Call (502) 564-6716 for assistance.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:090. General contents of Part B application.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 264.13, 270.14

STATUTORY AUTHORITY: KRS 224.10-100[40-100], 224.46-520, 224.46-530[-, 40 C.F.R. 270.14]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 and 224.46-530 require the Environmental and Public Protection Cabinet to promulgate administrative regulations for waste permitting. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 and KRS 224.46-530 by establishing] the general

contents of the Part B application. This administrative regulation is equivalent to the corresponding federal regulation except Section 2 of this administrative regulation establishes[has] different general requirements pertaining to[regarding] a Part B application than those established in 40 C.F.R. 270.14[imposed by federal regulation]. [To implement provisions of KRS 224.46-520 and 224.46-530, and to establish the general contents of the Part B application.]

Section 1. Contents of Part B Application. The subject matter shall be governed by 40 C.F.R. 270.14(a), effective July 1, 2002.

Section 2. General Information Requirements. The following information shall be[is] required for all hazardous waste sites or facilities, except as established in 401 KAR 34:010, Section 1[-, provides otherwise]:

(1) A general description of the facility;[-]

(2) Chemical and physical analyses of the hazardous wastes and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which is required to[must] be known to treat, store, or dispose of the wastes properly in accordance with 401 KAR Chapter 34;[-]

(3) A copy of the waste analysis plan required by 40 C.F.R. 264.13(b), effective July 1, 2005, and, if applicable, 40 C.F.R. 264.13(c)[-; 401 KAR 34:020, Section 4 and, if applicable, 401 KAR 34:020, Section 4];

(4) A description of the security procedures and equipment required by 401 KAR 34:020, Section 5, or a justification demonstrating the reasons for requesting a variance of this requirement;[-]

(5) A copy of the general inspection schedule required by [~~Section 6 of~~] 401 KAR 34:020, Section 6, including, iff[-, include, where] applicable, as part of the inspection schedule, specific requirements in 401 KAR 34:180, Section 5; 401 KAR 34:190, Sections 4 and 6; 401 KAR 34:200, Section 5; 401 KAR 34:210, Section 5; 401 KAR 34:220, Section 4; 401 KAR 34:230, Section 4; 401 KAR 34:240, Section 7; 401 KAR 34:245, Section 2; 401 KAR 34:250, Section 3; 401 KAR 34:275, Section 4; 401 KAR 34:280, Sections 2, 3, and 8; 401 KAR 34:281, Section 8; and 401 KAR 34:285, Section 5;[-]

(6) A justification of a[any] request for a variance of the preparedness and prevention requirements of 401 KAR 34:030;[-]

(7) A copy of the contingency plan required by 401 KAR 34:040, including iff[34:030; include, where] applicable[-] as part of the contingency plan, specific requirements in 401 KAR 34:190, 34:200, and 34:210;[-]

(8) A description of procedures, structures, or equipment used at the facility to:

(a) Prevent hazards in unloading operations (for example: ramps and special fork lifts);

(b) Prevent run-off from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example: berms, dikes, and trenches);

(c) Prevent contamination of water supplies;

(d) Mitigate effects of equipment failure and power outages;

(e) Prevent undue exposure of personnel to hazardous waste (for example: protective clothing); and

(f) Prevent releases to the atmosphere;[-]

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes [as required] to demonstrate compliance with 401 KAR 34:020, Section 8, including documentation;[demonstrating compliance with 401 KAR 34:020, Section 8.]

(10) Traffic pattern, estimated volume (number and[-] types of vehicles) and control (for example: show turns across traffic lanes[-] and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; and show traffic control signals);[-]

(11)(a) [Facility location information]:

(a) In order to determine the applicability of the seismic standard, the owner or operator of a new facility shall identify the political jurisdiction (county, township, or election district) in which the facility is proposed to be located.

(b) If the facility is proposed to be located in an area listed in 401 KAR 34:340, the owner or operator shall demonstrate compli-

ance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided shall be of such quality to be acceptable to geologists experienced in identifying and evaluation seismic activity. The information submitted shall show that either:

1. No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have had displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

a. Published geologic studies;

b. Aerial reconnaissance of the area within a five (5) mile radius from the facility;

c. An analysis of aerial photographs covering a 3,000 foot radius of the facility; and

d. If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility; or

2. If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility, data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste shall be conducted. Such investigation shall document with supporting maps and other analyses the location of any faults found.

(e) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year flood plain, floodway, or seasonal high water tables in accordance with 401 KAR 34:020, Section 9. This identification shall indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where a FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (wave action for example) which will be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood. Note: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they shall normally be determinative of whether a facility is located within or outside of the 100-year flood plain. However, where the FIA map excludes an area (usually areas of the flood plain less than 200 feet in width), these areas shall be considered and a determination made as to whether they are in the 100-year flood plain. Where FIA maps are not available for a proposed facility location, the owner or operator shall use equivalent mapping techniques to determine whether the facility is within the 100-year flood plain, and if so located, what the 100-year flood elevation would be.

(d) Owners and operators of facilities located in the 100-year flood plain shall provide the following information:

1. Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100-year flood;

2. Structural or other engineering studies showing the design of operational units (for example, tanks, incinerators) and flood prevention devices (for example, floodwalls, dikes) at the facility and how these will prevent washout and inundation of the waste;

3. If applicable, and in lieu of subparagraphs 1 and 2 of this paragraph, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

a. Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility;

b. A description of the location(s) to which the waste will be

moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the administrative regulations under 401 KAR Chapters 34 to 38;

c. The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and

d. The potential for accidental discharges of the waste during movement;

(e) Existing facilities not in compliance with 401 KAR 34:020, Section 9, shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the hazardous waste site or facility in a safe manner as required to demonstrate compliance with 401 KAR 34:020, Section 7; and

(b) A brief description of how training will be designed to meet actual job tasks in accordance with requirements in 401 KAR 34:020, Section 7; and

(12) A copy of the closure plan and, if applicable, the postclosure plan required by 401 KAR 34:070, Sections 3 and 9; and 401 KAR 34:190, Section 8, including if applicable, as part of the plan, specific requirements established in 401 KAR 34:180, Section 9; 401 KAR 34:190, Section 8; 401 KAR 34:200, Section 7; 401 KAR 34:210, Section 8; 401 KAR 34:220, Section 8; 401 KAR 34:230, Section 7; 401 KAR 34:240, Section 8; 401 KAR 34:245, Section 3; 401 KAR 34:250, Sections 2 and 4; and 401 KAR 34:285, Section 6; and

(13) For hazardous waste disposal units that have been closed, documentation that notices required by 401 KAR 34:070, Section 10, have been filed; and

(14) The most recent closure cost estimate for the facility prepared in accordance with 401 KAR 34:090, Section 1, and a copy of the documentation required to demonstrate financial assurance as established in 401 KAR 34:090, Section 2. For a new facility, a copy of the required documentation may be submitted sixty (60) days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B application; and

(15) If applicable, the most recent postclosure cost estimate for the facility prepared in accordance with 401 KAR 34:100, Section 1, plus a copy of the documentation required to demonstrate financial assurance as established in 401 KAR 34:100, Sections 2 and 3. For a new facility, a copy of the required documentation may be submitted sixty (60) days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B application; and

(16) If applicable, a copy of the insurance policy or other documentation which constitutes compliance with the requirements of 401 KAR 34:120.

(a) For a new facility, documentation showing the amount of insurance meeting the specification of 401 KAR 34:120, Section 1, and if applicable, 401 KAR 34:120, Section 2, that the owner or operator plans to have in effect before initial receipt of hazardous waste for the treatment, storage, or disposal.

(b) A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in 401 KAR 34:120; and

(17) A topographic map showing a distance of 1000 feet around the facility at a scale of two and five-tenths (2.5) centimeters (approximately one (1) inch) equal to not more than sixty-one (61.0) meters (approximately 200 feet).

(a) Contours shall be shown on the map.

(b) The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of one and five-tenths (1.5) meters (approximately five (5) feet), if relief is greater than six and one-tenth (6.1) meters (approximately twenty (20) feet), or an interval of six-tenths (0.6) meters (approximately two (2) feet), if relief is less than six and one-tenth (6.1) meters (approximately twenty (20) feet).

(c) Owners and operators of hazardous waste sites or facilities located in mountainous areas shall use larger contour intervals to adequately show topographic profiles of facilities.

(d) The map shall clearly show the following:

1. [(a)] Map scale and date;
2. 100-year [(b) 100 year] flood plain area and, if applicable, floodway and areas of seasonal high water table;
3. [(e)] Surface waters including intermittent streams;
4. [(f)] Surrounding land uses (residential, commercial, agricultural, and recreational);
5. [(e)] A wind rose (that is, prevailing wind-spread and direction);
6. [(f)] Orientation of the map (north arrow);
7. [(g)] Legal boundaries of the hazardous waste site or facility;
8. [(h)] Access control (fences and [] gates);
9. [(i)] Injection and withdrawal wells both on site and off site;
10. [(j)] Buildings; treatment, storage, or disposal operations; or other structures (recreation areas, run-off control systems, groundwater monitoring systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, and fire control facilities for example);
11. [(k)] Barriers for drainage or flood control; and
12. [(l)] Location of operational units within the hazardous waste site or facility where hazardous waste is (or will be) treated, stored, or disposed (including equipment cleanup areas); []

(18) If applying [(19) In addition to information required by the cabinet pursuant to this section, all applicants] for construction permits, [shall submit to the cabinet] a plan in accordance with KRS 224.46-520(1).

(a) The plan shall:

1. Address each of the issues listed in paragraph (b) of this subsection specifically;

2. [address each of the following issues specifically, shall] Document the applicant's decisions with respect to the proposal;

3. [, shall] Make reasonable justification for actions taken; and

4. Demonstrate that the proposed facility may [can] be integrated into the surroundings in an environmentally compatible manner, including [but not limited to] insuring that hydrologic, seismologic, geologic, and soil considerations have been adequately addressed in the application and operational plan.

(b) The plan shall include:

1. [(a)] An evaluation of alternatives including other site locations and treatment, storage, and disposal approaches **as required by KRS 224.46-520(1)(a)** [(see KRS 224.46-520(1)(a))];

2. [(b)] An evaluation of the public health, safety, and environmental aspects on the affected community **as required by KRS 224.46-520(1)(b)** [(see KRS 224.46-520(1)(b))];

3. [(c)] An evaluation of the social and economic impacts of the proposal on the affected community **as required by KRS 224.46-520(1)(c) and in accordance with paragraph (c) of this subsection** [(see KRS 224.46-520(1)(c))];

4. [(d)] An evaluation of mitigation procedures to alleviate problems identified in **subparagraphs 1., 2., and 3. of this paragraph as required by KRS 224.46-520(1)(d)** [, paragraphs (a), (b), and (c) of this subsection (see KRS 224.46-520(1)(d))]; and

5. [(e)] An evaluation of the relationship of the proposal to local planning and existing development **as required by KRS 224.46-520(1)(e) and in accordance with paragraph (c) of this subsection** [(see KRS 224.46-520(1)(e))].

(c) [(f)] In the case of hazardous waste landfills or other sites or facilities for the land disposal of hazardous waste, **the requirements of paragraph (b)3 and 5** [the provisions of paragraphs (c) and (e)] of this subsection shall be determined by the local unit of government pursuant to KRS 224.40-310(7).

(d) [224.40-310(5);] In the case of a regional integrated waste treatment and disposal demonstration facility, **the requirements in paragraph (b)3 and 5** [the provisions of paragraphs (c) and (e)] of this subsection shall be determined by the siting board established pursuant to KRS 224.46-820; []

(19) **Unless the hazardous waste site or facility has been regulated under interim status,** [(20) A showing of] the past compliance record for both the applicant and any other individual or entity designated to own or operate the hazardous waste site or facility, as required by KRS 224.46-520(1) as follows:

(a) Organizational structure:

1. If the applicant is a proprietorship, a detailed listing of:

a. The proprietors and their respective interests, whether own-

ership or otherwise; and []

b. Any partnership (general or limited), joint venture, or corporation in which the applicant holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise); []

2. If the applicant is a partnership, either general or limited, a detailed listing of:

a. Each of the partners and their respective interests, whether ownership or otherwise; []

b. Any corporation, joint venture, partnership (general or limited), or proprietorship in which any of the constituent partners of the applicant holds as much as or more than twenty-five (25) percent interest (whether ownership or otherwise); and

c. Any corporation, joint venture, proprietorship, or partnership (general or limited) which holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise) in any of the nonindividual constituent partners comprising the applicant; []

3. If the applicant is a corporation, a detailed listing of:

a. The officers, directors, and major stockholders;

b. Any corporation of which the applicant is either a subsidiary or which holds as much as or more than a twenty-five (25) percent interest (either in stock or assets) in the applicant;

c. Any corporations which are either subsidiaries of the applicant or in which the applicant holds as much as or more than a twenty-five (25) percent interest (either in stock or assets); and

d. Any proprietorship, partnership (general or limited), or joint venture in which the applicant holds as much as or more than a twenty-five (25) percent interest, whether ownership or otherwise; or []

4. If the applicant is a joint venture, a detailed listing of:

a. All other joint venturers, and the respective interests (whether ownership or otherwise) of each; and

b. Any proprietorship, partnership (general or limited), joint venture or corporation in which the applicant holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise); []

(b) For the purposes of paragraph (c) of this subsection, the listing of violations of laws, rules, or administrative regulations shall include the following areas:

1. Solid or hazardous waste management;

2. Air pollution;

3. Water;

4. OSHA with respect to hazardous materials or hazardous substances; and

5. Transportation with respect to hazardous materials or hazardous substances; []

(c) For each [and every] individual or other entity listed in paragraph (a) of this subsection, a detailed listing of all violations of federal or state laws, rules, or administrative regulations concerning the areas listed in paragraph (b) of this subsection (whether either judicial or administrative proceedings are pending or completed) that have resulted or may [could] result in either criminal convictions or civil or administrative fines as much as or more than \$1,000; and []

(d) For each [and every] individual or other entity listed in paragraph (a) of this subsection, a current financial statement prepared by a certified public accountant; []

(20) [(e) Hazardous waste sites or facilities which have been regulated under interim status shall be exempt from the requirements of this subsection unless the cabinet specifies otherwise in writing;]

(21) An evaluation of subsurface geologic formations and surface topography for solution or karst features. The owner or operator shall demonstrate compliance with either paragraph (a) or (b) of this subsection.

(a) If the owner or operator demonstrates to the [satisfaction of the] cabinet that the facility is not underlain by soluble limestone, **the owner or operator shall be exempt from** [he is exempt from all of] the requirements of this subsection.

(b) If the owner or operator does not make the demonstration of paragraph (a) of this subsection, the owner or operator shall satisfy the requirements in paragraph (c)1 or 2 of this subsection. In addition, the owner or operator shall demonstrate that:

1. The facility has been designed to withstand any gradual or sudden land subsidence which is characteristic of areas underlain by soluble limestone; and

2. [Ne] Contamination into or through any fractures, channels, or solution features shall not occur.

(c) Except as provided in paragraph (a) of this subsection, the owner or operator shall comply with either subparagraph 1 or 2 of this paragraph.

1. The owner or operator shall:

a. Establish the presence and extent of all fractures, channels, and solution features in the bedrock beneath the facility and describe how these[such] features will be sealed, filled, isolated, or otherwise neutralized to prevent subsidence; and

b. Describe how [such] solution features will be monitored to demonstrate compliance with the criteria of paragraph (b)1 and 2 of this subsection; or

2.a. The owner or operator shall design, operate, and maintain a double-liner system which shall be installed beneath the facility and which includes a leak detection system that meets the criteria of paragraph (b)1 and 2 of this subsection.

b. The design of the double-lined facility shall meet all the specifications of 401 KAR 34:200, Section 3 (surface impoundments), 401 KAR 34:210, Section 3 (waste piles) and 401 KAR 34:230, Section 3 (landfills), as applicable;[-]

(21)[(22)] The actual test data showing that the liner is or will be compatible with the waste, if applicable;[-]

(22)[(23)] For land disposal facilities, if a case-by-case extension has been approved under 40 C.F.R. 268.5 or a petition has been approved under 40 C.F.R. 268.6, a copy of the notice of approval for the extension or petition;[is required.]

(23)[(24)] The documentation on waste minimization required by 401 KAR 38:030, Section 1;[-]

(24)[(25)] Demonstration of financial assurance as required by KRS 224.40-325;[-]

(25)[(26)] A summary of the preapplication meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required by[under] 401 KAR 38:050, Section 14; and[-]

(26)[(27)] Applicants may be required to submit such] Information [as may be] necessary to enable the cabinet to carry out its duties under state laws as required in 401 KAR Chapter 38[this chapter].

Section 3. Location information. The subject matter shall be governed by 40 C.F.R. 270.14(b)(11).

Section 4. Additional Groundwater Protection Information Requirements. (1) The subject matter shall be governed by 40 C.F.R. 270.14(c), effective July 1, 2005.

Section 5.[4.] Information requirements for solid waste management units. The subject matter shall be governed by 40 C.F.R. 270.14(d), effective July 1, 2005.

[Section 1. Contents of Part B Application. Part B of the permit application consists of the general information requirements of this administrative regulation and the specific informational requirements in 401 KAR 38:100 to 38:210 applicable to the facility. The Part B information requirements presented in this administrative regulation and 401 KAR 38:100 to 401 KAR 38:210 reflect the information requirements necessary for the cabinet to determine compliance with 401 KAR Chapter 34 standards. If owners and operators of hazardous waste sites or facilities can demonstrate that the information prescribed in Part B cannot be provided to the extent required, the cabinet may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the cabinet and signed in accordance with requirements in Section 7 of 401 KAR 38:070. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by an engineer.

Section 2. General Information Requirements. The following information is required for all hazardous waste sites or facilities, except as Section 1 of 401 KAR 34:010 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous wastes and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with 401 KAR Chapter 34.

(3) A copy of the waste analysis plan required by Section 4(2) of 401 KAR 34:020 and, if applicable, Section 4(3) of 401 KAR 34:020.

(4) A description of the security procedures and equipment required by Section 5 of 401 KAR 34:020, or a justification demonstrating the reasons for requesting a variance of this requirement.

(5) A copy of the general inspection schedule required by Section 6(2) of 401 KAR 34:020. Include, where applicable, as part of the inspection schedule, specific requirements in Section 5 of 401 KAR 34:180, Sections 4(9) and 6 of 401 KAR 34:190, Section 4 of 401 KAR 34:200, Section 5 of 401 KAR 34:210, Section 4 of 401 KAR 34:220, Section 4 of 401 KAR 34:230, Section 7 of 401 KAR 34:240, Section 2 of 401 KAR 34:245, Section 3 of 401 KAR 34:250, Section 4 of 401 KAR 34:275, Sections 3, 4, and 9 of 401 KAR 34:280, Sections 8 and 11 of 401 KAR 34:281, and Section 5 of 401 KAR 34:285.

(6) A justification of any request for a variance of the preparedness and prevention requirements of 401 KAR 34:030.

(7) A copy of the contingency plan required by 401 KAR 34:030; include, where applicable, as part of the contingency plan, specific requirements in 401 KAR 34:190, 34:200 and 34:210.

(8) A description of procedures, structures, or equipment used at the facility to:

(a) Prevent hazards in unloading operations (for example, ramps, special fork lifts);

(b) Prevent run-off from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(c) Prevent contamination of water supplies;

(d) Mitigate effects of equipment failure and power outages;

(e) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

(f) Prevent releases to atmosphere.

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive or incompatible wastes as required to demonstrate compliance with Section 8 of 401 KAR 34:020 including documentation demonstrating compliance with Section 8(3) of 401 KAR 34:020.

(10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; show traffic control signals).

(11) Facility location information:

(a) In order to determine the applicability of the seismic standard, Section 9(1) of 401 KAR 34:020, the owner or operator of a new facility shall identify the political jurisdiction (county, township, or election district) in which the facility is proposed to be located.

(b) If the facility is proposed to be located in an area listed in 401 KAR 34:340 the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided shall be of such quality to be acceptable to geologists experienced in identifying and evaluation seismic activity. The information submitted shall show that either:

1. No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have had displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

a. Published geologic studies;

b. Aerial reconnaissance of the area within a five (5) mile radius from the facility;

c. An analysis of aerial photographs covering a 3,000 foot radius of the facility; and

d. If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility; or

2. If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults

pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility, data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste shall be conducted. Such investigation shall document with supporting maps and other analyses the location of any faults found.

(c) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year flood plain, floodway or seasonal high water tables in accordance with Section 9(2) of 401 KAR 34:020. This identification shall indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where a FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (wave action for example) which will be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood. Note: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they shall normally be determinative of whether a facility is located within or outside of the 100-year flood plain. However, where the FIA map excludes an area (usually areas of the flood plain less than 200 feet in width), these areas shall be considered and a determination made as to whether they are in the 100-year flood plain. Where FIA maps are not available for a proposed facility location, the owner or operator shall use equivalent mapping techniques to determine whether the facility is within the 100-year flood plain, and if so located, what the 100-year flood elevation would be.

(d) Owners and operators of facilities located in the 100-year flood plain shall provide the following information:

1. Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100-year flood;

2. Structural or other engineering studies showing the design of operational units (for example, tanks, incinerators) and flood prevention devices (for example, floodwalls, dikes) at the facility and how these will prevent washout and inundation of the waste;

3. If applicable, and in lieu of subparagraphs 1 and 2 of this paragraph a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

a. Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility;

b. A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the administrative regulations under 401 KAR Chapters 34 to 38;

c. The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and

d. The potential for accidental discharges of the waste during movement.

(e) Existing facilities NOT in compliance with Section 9(2) of 401 KAR 34:020 shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the hazardous waste site or facility in a safe manner as required to demonstrate compliance with Section 7 of 401 KAR 34:020. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in Section 7(1)(e) of 401 KAR 34:020.

(13) A copy of the closure plan and, where applicable, the

postclosure plan required by Sections 3 and 9 of 401 KAR 34:070, and Section 8 of 401 KAR 34:100. Include, where applicable, as part of the plans, specific requirements in Section 9 of 401 KAR 34:180, Section 8 of 401 KAR 34:190, Section 6 of 401 KAR 34:200, Section 8 of 401 KAR 34:210, Section 8 of 401 KAR 34:220, Section 6 of 401 KAR 34:230, Section 8 of 401 KAR 34:240, Section 3 of 401 KAR 34:245, Sections 2 and 4 of 401 KAR 34:250, and Section 6 of 401 KAR 34:285.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under Section 10 of 401 KAR 34:070 have been filed.

(15) The most recent closure cost estimate for the facility prepared in accordance with Section 1 of 401 KAR 34:090 and a copy of the documentation required to demonstrate financial assurance under Sections 2 to 12 of 401 KAR 34:090. For a new facility, a copy of the required documentation may be submitted sixty (60) days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(16) Where applicable, the most recent postclosure cost estimate for the facility prepared in accordance with Section 1 of 401 KAR 34:100 plus a copy of the documentation required to demonstrate financial assurance under Sections 2 to 12 of 401 KAR 34:100. For a new facility, a copy of the required documentation may be submitted sixty (60) days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of 401 KAR 34:120. For a new facility, documentation showing the amount of insurance meeting the specification of Section 1 of 401 KAR 34:120 and if applicable, Section 2 of 401 KAR 34:120 that the owner or operator plans to have in effect before initial receipt of hazardous waste for the treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in 401 KAR 34:120.

(18) A topographic map showing a distance of 1000 feet around the facility at a scale of two and five tenths (2.5) centimeters (approximately one (1) inch) equal to not more than sixty-one (61.0) meters (approximately 200 feet). Contours shall be shown on the map. The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of one and five tenths (1.5) meters (approximately five (5) feet), if relief is greater than six and one tenth (6.1) meters (approximately twenty (20) feet), or an interval of six tenths (0.6) meters (approximately two (2) feet), if relief is less than six and one tenth (6.1) meters (approximately twenty (20) feet). Owners and operators of hazardous waste sites or facilities located in mountainous areas shall use larger contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(a) Map scale and date;

(b) 100 year flood plain area and, if applicable, floodway and areas of seasonal high water table;

(c) Surface waters including intermittent streams;

(d) Surrounding land uses (residential, commercial, agricultural, recreational);

(e) A wind rose (that is, prevailing wind spread and direction);

(f) Orientation of the map (north arrow);

(g) Legal boundaries of the hazardous waste site or facility;

(h) Access control (fences, gates);

(i) Injection and withdrawal wells both on site and off site;

(j) Buildings; treatment, storage, or disposal operations; or other structures (recreation areas, run-off control systems, groundwater monitoring systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, and fire control facilities for example);

(k) Barriers for drainage or flood control; and

(l) Location of operational units within the hazardous waste site or facility where hazardous waste is (or will be) treated, stored, or disposed (including equipment cleanup areas).

(19) In addition to information required by the cabinet pursuant to this section, all applicants for construction permits shall submit to the cabinet a plan in accordance with KRS 224.46-520(1). The plan shall address each of the following issues specifically, shall

document the applicant's decisions with respect to the proposal, shall make reasonable justification for actions taken and demonstrate that the proposed facility can be integrated into the surroundings in an environmentally compatible manner, including but not limited to insuring that hydrologic, seismologic, geologic and soil considerations have been adequately addressed in the application and operational plan. The plan shall include:

(a) An evaluation of alternatives including other site locations and treatment, storage and disposal approaches (see KRS 224.46-520(1)(a));

(b) An evaluation of the public health, safety and environmental aspects on the affected community (see KRS 224.46-520(1)(b));

(c) An evaluation of the social and economic impacts of the proposal on the affected community (see KRS 224.46-520(1)(c));

(d) An evaluation of mitigation procedures to alleviate problems identified in paragraphs (a), (b), and (c) of this subsection (see KRS 224.46-520(1)(d)); and

(e) An evaluation of the relationship of the proposal to local planning and existing development (see KRS 224.46-520(1)(e)).

(f) In the case of hazardous waste landfills or other sites or facilities for the land disposal of hazardous waste the provisions of paragraphs (c) and (e) of this subsection shall be determined by the local unit of government pursuant to KRS 224.40-310(5); in the case of a regional integrated waste treatment and disposal demonstration facility the provisions of paragraphs (c) and (e) of this subsection shall be determined by the siting board established pursuant to KRS 224.46-820.

(20) A showing of the past compliance record for both the applicant and any other individual or entity designated to own or operate the hazardous waste site or facility (as required by KRS 224.46-520(1)) as follows:

(a) Organizational structure:

1. If the applicant is a proprietorship, a detailed listing of:

a. The proprietors and their respective interests, whether ownership or otherwise.

b. Any partnership (general or limited), joint venture, or corporation in which the applicant holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise).

2. If the applicant is a partnership, either general or limited, a detailed listing of:

a. Each of the partners and their respective interests, whether ownership or otherwise.

b. Any corporation, joint venture, partnership (general or limited), or proprietorship in which any of the constituent partners of the applicant holds as much as or more than twenty-five (25) percent interest (whether ownership or otherwise);

c. Any corporation, joint venture, proprietorship, or partnership (general or limited) which holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise) in any of the nonindividual constituent partners comprising the applicant.

3. If the applicant is a corporation, a detailed listing of:

a. The officers, directors, and major stockholders;

b. Any corporation of which the applicant is either a subsidiary or which holds as much as or more than a twenty-five (25) percent interest (either in stock or assets) in the applicant;

c. Any corporations which are either subsidiaries of the applicant or in which the applicant holds as much as or more than a twenty-five (25) percent interest (either in stock or assets);

d. Any proprietorship, partnership (general or limited), or joint venture in which the applicant holds as much as or more than a twenty-five (25) percent interest, whether ownership or otherwise.

4. If the applicant is a joint venture, a detailed listing of:

a. All other joint venturers, and the respective interests (whether ownership or otherwise) of each;

b. Any proprietorship, partnership (general or limited), joint venture or corporation in which the applicant holds as much as or more than a twenty-five (25) percent interest (whether ownership or otherwise).

(b) For the purposes of paragraph (c) of this subsection, the listing of violations of laws, rules or administrative regulations shall include the following areas:

1. Solid or hazardous waste management;
2. Air pollution;
3. Water;

4. OSHA with respect to hazardous materials or hazardous substances; and

5. Transportation with respect to hazardous materials or hazardous substances.

(c) For each and every individual or other entity listed in paragraph (a) of this subsection, a detailed listing of all violations of federal or state laws, rules or administrative regulations concerning the areas listed in paragraph (b) of this subsection (whether either judicial or administrative proceedings are pending or completed) that have resulted or could result in either criminal convictions or civil or administrative fines as much as or more than \$1,000.

(d) For each and every individual or other entity listed in paragraph (a) of this subsection, a current financial statement prepared by a certified public accountant.

(e) Hazardous waste sites or facilities which have been regulated under interim status shall be exempt from the requirements of this subsection unless the cabinet specifies otherwise in writing.

(21) An evaluation of subsurface geologic formations and surface topography for solution or karst features. The owner or operator shall demonstrate compliance with either paragraph (a) or (b) of this subsection.

(a) If the owner or operator demonstrates to the satisfaction of the cabinet that the facility is not underlain by soluble limestone, he is exempt from all of the requirements of this subsection.

(b) If the owner or operator does not make the demonstration of paragraph (a) of this subsection, the owner or operator shall satisfy the requirements in paragraph (c)1 or (c)2 of this subsection. In addition, the owner or operator shall demonstrate that:

1. The facility has been designed to withstand any gradual or sudden land subsidence which is characteristic of areas underlain by soluble limestone; and

2. No contamination into or through any fractures, channels or solution features shall occur.

(c) Except as provided in paragraph (a) of this subsection, the owner or operator shall comply with either subparagraph 1 or 2 of this paragraph.

1. The owner or operator shall:

a. Establish the presence and extent of all fractures, channels and solution features in the bedrock beneath the facility and describe how such features will be sealed, filled, isolated or otherwise neutralized to prevent subsidence; and

b. Describe how such solution features will be monitored to demonstrate compliance with the criteria of paragraph (b)1 and 2 of this subsection; or

2. The owner or operator shall design, operate and maintain a double liner system which shall be installed beneath the facility and which includes a leak detection system that meets the criteria of paragraph (b)1 and 2 of this subsection. The design of the double-lined facility shall meet all the specifications of Section 3 of 401 KAR 34:200 (surface impoundments), Section 3 of 401 KAR 34:210 (waste piles) and Section 3 of 401 KAR 34:230 (landfills), as applicable.

(22) The actual test data showing that the liner is or will be compatible with the waste, if applicable.

(23) For land disposal facilities, if a case by case extension has been approved under Section 5 of 401 KAR 37:010 or a petition has been approved under Section 6 of 401 KAR 37:010, a copy of the notice of approval for the extension or petition is required.

(24) The documentation on waste minimization required by Section 1(12)(h)4 of 401 KAR 38:030.

(25) Demonstration of financial assurance as required by KRS 224.40-325.

(26) A summary of the preapplication meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under Section 14(3) of 401 KAR 38:050.

(27) Applicants may be required to submit such information as may be necessary to enable the cabinet to carry out its duties under state laws as required in this chapter.]

TERESA J HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: January 3, 2007 at 2 p.m.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET Department for Environmental Protection Division of Waste Management (As Amended at ARRS, May 8, 2007)

401 KAR 38:150. Specific Part B requirements for containers.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, [40 C.F.R. 270.15]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [40 C.F.R. 270.15]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste [224.40-305 and 224.46-520 require any person who treats, stores, recycles or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:040]. This administrative regulation establishes specific Part B requirements for facilities that manage hazardous waste in containers.

Section 1. Specific Part B Requirements for Containers. The subject matter shall be governed by 40 C.F.R. 270.15, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste sites or facilities that store or will store hazardous waste in containers.

~~Section 2. Additional Part B Requirements for Containers. In addition to the information required by 401 KAR 38:090, 401 KAR 38:090, and 401 KAR 38:100, owners and operators of facilities that store or will store containers of hazardous waste, except as otherwise provided in Section 1 of 401 KAR 34:010 and in 401 KAR 34:180, must provide the following additional information:~~

~~(1) A description of the containment system to demonstrate compliance with Section 6 of 401 KAR 34:180. The description must show at least the following:~~

~~(a) Basic design parameters, dimensions, and materials of construction;~~

~~(b) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;~~

~~(c) Capacity of the containment system relative to the number and volume of containers to be stored;~~

~~(d) Provisions for preventing or managing run-on; and~~

~~(e) How accumulated liquids can be analyzed and removed to prevent overflow.~~

~~(2) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with Section 6 of 401 KAR 34:180, including:~~

~~(a) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and~~

~~(b) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.~~

~~(3) Sketches, drawings, or data demonstrating compliance with Section 7 of 401 KAR 34:180 (location of buffer zone and containers holding ignitable or reactive wastes), and Section 8 of 401 KAR 34:180 (location of incompatible wastes), where applicable.~~

~~(4) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with Section 8(1) and (2) of 401 KAR 34:180, and Section 8(2) and (3) of 401 KAR 34:020.~~

~~(5) Information on air emission control equipment as required~~

~~in Section 3 of this administrative regulation.~~

~~Section 3. Specific Part B Information Requirements for Air Emission Controls for Containers. Except as otherwise provided in Section 1 of 401 KAR 34:010, owners or operators of containers that use air emission controls in accordance with the requirements of 401 KAR 34:281 shall provide the following additional information:~~

~~(1) Identification of each container area subject to the requirements of 401 KAR 34:281 and certification by the owner or operator that the requirements of 401 KAR 38:070 through 38:270 are met.~~

~~(2) Documentation for each enclosure used to control air emissions from containers in accordance with the requirements of Section 6(2)(b)1 of 401 KAR 34:281 that includes information prepared by the owner or operator or provided by the manufacturer or vendor describing the enclosure design, and certification by the owner or operator that the enclosure meets the specifications listed in Section 7(2)(b) of 401 KAR 35:281.~~

~~(3) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section 7 of 401 KAR 34:281 that includes design and performance information as specified in Section 1(3) and (4) of 401 KAR 38:240.~~

~~(4) An emission monitoring plan for both 40 C.F.R. Part 60 Appendix A Method 21 and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.~~

~~(5) When an owner or operator of a facility subject to 401 KAR 35:281 cannot comply with 401 KAR 34:281 by the date of permit issuance, the schedule of implementation required under Section 2 of 401 KAR 35:281.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716 fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET Department for Environmental Protection Division of Waste Management (As Amended at ARRS, May 8, 2007)

401 KAR 38:160. Specific Part B information requirements for tanks.

RELATES TO: KRS Subchapters 224.10, 224.46, 224.99, [40 C.F.R. 270.16]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520, 224.46-530 [40 C.F.R. 270.16]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste [224.40-305 and 224.46-520 require any person who treats, stores, recycles, or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:040]. This administrative regulation establishes specific Part B requirements for facilities that treat or store hazardous waste in tanks.

Section 1. Specific Part B Requirements for Tank Systems. The subject matter shall be governed by 40 C.F.R. 270.16, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners or operators of hazardous waste sites or facilities that treat or store or will treat or store hazardous

waste-in-tanks.

Section 2. Specific Part B Information Requirements for Tank Systems. Except as otherwise provided in Section 1 of 401 KAR 34:010 and Section 1 of 401 KAR 34:190, owners and operators of facilities that use or will use tanks to store or treat hazardous waste must provide the following information in addition to the information required by 401 KAR 38:080, 401 KAR 38:090, and 401 KAR 38:100:

- (1) A written assessment that is reviewed and certified by an independent, qualified, professional engineer registered in the state of Kentucky as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under Sections 2 and 3 of 401 KAR 34:190;
- (2) Dimensions and capacity of each tank;
- (3) A description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);
- (4) A diagram of piping, instrumentation, and process flow for each tank system;
- (5) A description of materials and equipment used to provide external corrosion protection, as required under Section 3(1)(c)2 of 401 KAR 34:190;
- (6) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with Section 3(2) through (5) of 401 KAR 34:190;
- (7) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of Section 4(1) through (6) of 401 KAR 34:190;
- (8) For tank systems for which a variance from the requirements of Section 4 of 401 KAR 34:190 is sought (as provided by Section 4(7) of 401 KAR 34:190):
 - (a) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water during the life of the facility; or
 - (b) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment;
- (9) Description of controls and practices to prevent spills and overflows, as required under Section 5(2) of 401 KAR 34:190; and
- (10) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of Sections 9 and 10 of 401 KAR 34:190.
- (11) Information on air emission control equipment as required in Section 3 of this administrative regulation.

Section 3. Specific Part B Information Requirements for Air Emission Controls for Tanks. Except as otherwise provided in Section 1 of 401 KAR 34:010, owners or operators of tanks that use air emission controls in accordance with the requirements of 401 KAR 34:281 shall provide the following additional information:

- (1) Documentation for each cover installed on a tank subject to Section 4(2)(b) or 4(2)(c) of 401 KAR 34:281 that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in Section 11(3) of 401 KAR 34:281.
- (2) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section 7 of 401 KAR 34:281 that includes design and performance information as specified in Section 1(3) and (4) of 401 KAR 38:240.
- (3) An emission monitoring plan for both 40 C.F.R. Part 260 Appendix A Method 21 and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.
- (4) When an owner or operator of a facility subject to 401 KAR 35:281 cannot comply with 401 KAR 34:281 by the date of permit issuance, the schedule of implementation required under Section 2

of 401 KAR 35:281.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:170. Specific Part B requirements for surface impoundments.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.17

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520 [~~40 C.F.R. 270.17~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes ~~This administrative regulation implements provisions of KRS 224.46-520 by establishing~~ specific Part B requirements for facilities that treat, store, or dispose of hazardous waste in surface impoundments. ~~[To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for facilities that treat, store or dispose of hazardous waste in surface impoundments.]~~

Section 1. Specific Part B Requirements for Surface Impoundments. (1) The subject matter shall be governed by 40 C.F.R. 270.17, effective July 1, 2005.

(2) The engineering report required by ~~under~~ 40 C.F.R. 270.17(f) shall also demonstrate compliance with ~~[401 KAR 38:500 and]~~ KRS 224.40-310 and 401 KAR 38:500.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste sites or facilities that treat, store or dispose or will treat, store or dispose of hazardous waste in surface impoundments.

Section 2. Additional Part B Requirements for Surface Impoundments. In addition to the information required by 401 KAR 38:080, 401 KAR 38:090, and 401 KAR 38:100, owners and operators of facilities that store, treat, or dispose or will store, treat, or dispose of hazardous waste in surface impoundments, except as otherwise provided in Section 1 of 401 KAR 34:010 and Section 1 of 401 KAR 34:200, must provide the following additional information:

- (1) A list of the hazardous wastes placed or to be placed in each surface impoundment;
- (2) Detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated, and maintained to meet the requirements of Section 10 of 401 KAR 3:020 and Sections 2, 3, and 10 of 401 KAR 34:200, addressing the following items:
 - (a) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by Section 2(2) of 401 KAR 34:200, submit detailed plans and engineering and hydrogeologic reports as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time;
 - (b) The double liner and leak (leachate) detection, collection, and removal system, if the surface impoundment is required to meet the requirements of Section 2(3) of 401 KAR 34:200. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is

VOLUME 33, NUMBER 12 – JUNE 1, 2007

sought as provided by Section 2(4), (5), or (6) of 401 KAR 34:200, submit appropriate information;

(e) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(d) The construction quality assurance (CQA) plan, if required under Section 10 of 401 KAR 34:020;

(e) Proposed action leakage rate, with rationale, if required under Section 3 of 401 KAR 34:200, and response action plan, if required under Section 10 of 401 KAR 34:200;

(f) Prevention of overtopping, including flow measuring devices; and

(g) Structural integrity of dikes;

(3) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, including flow measuring devices, will be inspected in order to meet the requirements of Section 5(1) and (2) of 401 KAR 34:200. This information shall be included in the inspection plan submitted under Section 2(5) of 401 KAR 38:090;

(4) A certification by an engineer which attests to the structural integrity of each dike, as required under Section 4(3) of 34:200. For new units, the owner or operator shall submit a statement by an engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(5) A description of the procedures to be used for removing a surface impoundment from service, as required under Section 5(2) and (3) of 401 KAR 34:200. This information shall be included in the contingency plan submitted under Section 2(7) of 401 KAR 38:090;

(6) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under Section 6(1)(a) of 401 KAR 34:200. For any wastes not to be removed from the unit upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Section 6(1)(b) and (2) of 401 KAR 34:200 and 38:500 will be complied with. This information shall be included in the closure plan and, where applicable, the postclosure plan submitted under Section 2(13) of 401 KAR 38:190;

(7) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how Section 7 of 401 KAR 34:200 will be complied with;

(8) Incompatible wastes, or incompatible wastes and materials shall not be placed in a surface impoundment in accordance with Section 8 of 401 KAR 34:200.

(9) A waste management plan for EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 (chlorinated dioxins, dibenzofurans and phenols) describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of Section 9 of 401 KAR 34:200. This submission shall address the following items as specified in Section 9 of 401 KAR 34:200:

(a) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(b) The attenuative properties of underlying and surrounding soils or other materials;

(c) The mobilizing properties of other materials codisposed with these wastes; and

(d) The effectiveness of additional treatment, design, or monitoring techniques.

(10) Information on air emission control equipment as required in Section 3 of this administrative regulation.

Section 3. Specific Part B Information Requirements for Air Emission Controls for Surface Impoundments. Except as otherwise provided in Section 1 of 401 KAR 34:010, owners or operators of surface impoundments that use air emission controls in accordance with the requirements of 401 KAR 34:281 shall provide the following additional information:

(1) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Section 5(3) of 401 KAR 34:281 that includes information prepared

by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 6(5) of 401 KAR 34:281.

(2) Documentation for each closed vent system and control device installed in accordance with the requirements of Section 7 of 401 KAR 34:281 that includes design and performance information as specified in Section 1(3) and (4) of 401 KAR 38:240.

(3) An emission monitoring plan for both 40 C.F.R. Part 260 Appendix A Method 21 and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

(4) When an owner or operator of a facility subject to 401 KAR 35:281 cannot comply with 401 KAR 34:281 by the date of permit issuance, the schedule of implementation required under Section 2 of 401 KAR 35:281.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET Department for Environmental Protection Division of Waste Management (As Amended at ARRS, May 8, 2007)

401 KAR 38:180. Specific Part B requirements for waste piles.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.18

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270.18~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes ~~This administrative regulation implements provisions of KRS 224.46-520 by establishing~~ specific Part B requirements for facilities that store or treat hazardous waste in waste piles. ~~[To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for facilities that store or treat hazardous waste in waste piles.]~~

Section 1. Specific Part B Information Requirements for Waste Piles. The subject matter shall be governed by 40 C.F.R. 270.18, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste sites or facilities that treat or store or will treat or store hazardous waste in waste piles.

Section 2. Additional Part B Requirements for Waste Piles. In addition to the information required by 401 KAR 38:080, 401 KAR 38:090, and 401 KAR 38:100, owners and operators of facilities that store or treat or will store or treat hazardous waste in waste piles, except as otherwise provided in Section 1 of 401 KAR 34:010 and Section 1 of 401 KAR 34:210, shall provide the following additional information:

(1) A list of the hazardous wastes placed or to be placed in each waste pile;

(2) If an exemption is sought to Section 2 of 401 KAR 34:210 and 401 KAR 34:060 as provided by Section 1(3) of 401 KAR 34:210, an explanation of how the standards of Section 1(3) of 401 KAR 34:210 will be complied with or detailed plans and an engineering report describing how the requirements of 401 KAR 34:060, Section 1(2)(b) will be met;

(3) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of Section 10 of 401 KAR 34:020 and Sections 2 to 4 of 401 KAR 34:210, addressing the following items:

(a) 1. The liner system (except for an existing portion of a waste pile) if the waste pile will meet the requirements of Section 2(1) of 401 KAR 34:210. If an exemption from the requirement for a liner is sought, as provided by Section 2(2) of 401 KAR 34:210, the owner or operator shall submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time;

2. The double liner and leak (leachate) detection, collection, and removal system, if the waste pile is required to meet the requirements of Section 2 of 401 KAR 34:210. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Section 2 of 401 KAR 34:210, submit the appropriate information;

3. If the leak detection system is located in a standard zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

4. The construction quality assurance (CQA) plan if required under 401 KAR 34:020;

5. Proposed action leakage rate, with rationale, if required under 401 KAR 34:210, and response action plan, if required under 401 KAR 34:210;

(b) Control of run-on;

(c) Control of run-off;

(d) Management of collection and holding units associated with run-on and run-off control systems; and

(e) Control of wind dispersal of particulate matter, where applicable;

(4) A description of how each waste pile, including the liner and appurtenances for control of run-on, and run-off, will be inspected in order to meet the requirements of Section 5(1) to (3) of 401 KAR 34:210. This information shall be included in the inspection plan submitted under Section 2(5) of 401 KAR 38:090;

(5) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(6) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how requirements of Section 6 of 401 KAR 34:210 will be complied with;

(7) Incompatible wastes, or incompatible wastes and materials shall not be placed in a waste pile in accordance with Section 7 of 401 KAR 34:210;

(8) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under Section 8(1) of 401 KAR 34:210. For any waste not to be removed from the waste pile upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Section 6(1) and (2) of 401 KAR 34:230 and 38:500 will be complied with. This information shall be included in the closure plan and, where applicable, the postclosure plan submitted under Section 2(13) of 401 KAR 38:090; and

(9) A waste management plan for EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 (chlorinated dioxins, dibenzofurans and phenols) describing how a waste pile that is not enclosed (as defined in 401 KAR 34:210, Section 1(3)) is or will be designed, constructed, operated, and maintained to meet the requirements of Section 9 of 401 KAR 34:210. This submission shall address the following items as specified in Section 9 of 401 KAR 34:210:

(a) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(b) The attenuative properties of underlying and surrounding soils or other materials;

(c) The mobilizing properties of other materials codisposed with these wastes; and

(d) The effectiveness of additional treatment, design, or moni-

toring techniques.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:190. Specific Part B requirements for incinerators.

RELATES TO: KRS Subchapters Chapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.19

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.19]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste[224.40-305 and 224.46-520 require any person who treats, stores, recycles, or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:010]. This administrative regulation establishes specific Part B requirements for facilities that incinerate hazardous waste.

Section 1. Specific Part B Information Requirements for Incinerators. The subject matter shall be governed by 40 C.F.R. 270.19, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste sites or facilities that incinerate or will incinerate hazardous waste.

Section 2. Additional Part B Requirements for Incinerators. In addition to the information required by 401 KAR 38:080, 38:090 and 38:100, owners and operators of facilities that incinerate or will incinerate hazardous waste, except as Section 1 of 401 KAR 34:010 and Section 1 of 401 KAR 34:240, provide otherwise, must fulfill the requirements of subsection (1), (2) or (3) of this section.

(1) When seeking an exemption under Section 1(2) or (3) of 401 KAR 34:240 (ignitable, corrosive or reactive wastes only) submit:

(a) Documentation that the waste is listed as a hazardous waste in Chapter 31 solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(b) Documentation that the waste is listed as a hazardous waste in Chapter 31 solely because it is reactive (Hazard Code R) for characteristics other than those listed in Section 4(1)(d) and (e) of 401 KAR 31:030, and will not be burned when other hazardous wastes are present in the combustion zone; or

(c) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under 401 KAR 31:030; or

(d) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in Section 4(1)(a), (b), (c), (f), (g) or (h) of 401 KAR 31:030, and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(2) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section 3 of 401 KAR 38:060; or

(3) In lieu of a trial burn, the applicant may submit the following

information:

(a) An analysis of each waste or mixture of wastes to be burned including:

1. Heat value of the waste in the form and composition in which it will be burned;

2. Viscosity (if applicable), or description of physical form of the waste;

3. An identification of any hazardous organic constituents listed in 401 KAR 31:170, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in 401 KAR 31:170 which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" EPA Publication SW-846, incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, or their equivalent;

4. An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" EPA Publication SW-846, (incorporated in 40 C.F.R. 260, which is adopted in Section 3 of 401 KAR 30:010);

5. A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in Section 4 of 401 KAR 34:240.

(b) A detailed engineering description of the incinerator, including:

1. Manufacturer's name and model number of incinerator;

2. Type of incinerator;

3. Linear dimension of incinerator unit including cross-sectional area of combustion chamber;

4. Description of auxiliary fuel system (type/feed);

5. Capacity of prime mover;

6. Description of automatic waste feed cutoff system(s);

7. Stack gas monitoring and pollution control monitoring system;

8. Nozzle and burner design;

9. Construction materials;

10. Location and description of temperature, pressure, and flow indicating devices and control devices.

(c) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in subsection (3)(a) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(d) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(e) A description of the results submitted from any previously conducted trial burn(s) including:

1. Sampling and analysis techniques used to calculate performance standards in Section 4 of 401 KAR 34:240;

2. Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement);

(f) The expected incinerator operation information to demonstrate compliance with Sections 4 and 6 of 401 KAR 34:240 including:

1. Expected carbon monoxide (CO) level in the stack exhaust gas;

2. Waste feed rate;

3. Combustion zone temperature;

4. Indication of combustion gas velocity;

5. Expected stack gas volume, flow rate, and temperature;

6. Computed residence time for waste in the combustion zone;

7. Expected hydrochloric acid removal efficiency;

8. Expected fugitive emissions and their control procedures;

and

9. Proposed waste feed cutoff limits based on the identified significant operating parameters;

(g) Such supplemental information as the cabinet finds necessary to achieve the purposes of this subsection;

(h) Waste analysis data, including that submitted in subsection (3)(a) of this section, sufficient to allow the cabinet to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(4) The cabinet shall approve a permit application without a trial burn if it finds that:

(a) The wastes are sufficiently similar; and

(b) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under Section 6 of 401 KAR 34:240) operating conditions that will ensure that the performance standards in Section 4 of 401 KAR 34:240 will be met by the incinerator.

(5) The cabinet shall require facilities that incinerate any of the hazardous waste listed in Section 5 of 401 KAR 31:040 to supply monitoring information from a comparable facility as specified in KRS 224.50-130(2)(a) and (b). The parameters monitored shall include those listed in Section 7 of 401 KAR 34:240 and products of complete combustion and products of incomplete combustion (PIC) from the stack and fugitive sources.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:200. Specific Part B requirements for land treatment facilities.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.20

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.20]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste[224.40-305 and 224.46-520 require any person who treats, stores, recycles or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:010]. This administrative regulation establishes specific Part B requirements for land treatment facilities.

Section 1. Specific Part B Information Requirements for Land Treatment Facilities. The subject matter shall be governed by 40 C.F.R. 270.20, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste sites or facilities that dispose or will dispose of hazardous waste in land treatment facilities.

Section 2. Additional Part B Requirements for Land Treatment Facilities. In addition to the information required by 401 KAR 38:080, 401 KAR 38:090 and 401 KAR 38:100, owners and operators of facilities that use or will use land treatment to dispose of hazardous waste, except as otherwise provided in Section 1 of 401 KAR 34:010 and Section 1 of 34:220, must provide the following

additional information:

(1) A description of plans to conduct a treatment demonstration as required under Section 3 of 401 KAR 34:220. The description must include the following information:

(a) The wastes for which the demonstration will be made and the potential hazardous constituents in the wastes;

(b) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(c) Any specific laboratory or field tests that will be conducted, including

1. The type of test (e.g., column leaching, degradation);
2. Materials and methods, including analytical procedures;
3. Expected time for completion;
4. Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices;

(2) A description of a land treatment program, as required under Section 2 of 401 KAR 34:220. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(a) The wastes to be land treated;

(b) Design measures and operating practices necessary to maximize treatment in accordance with Section 4(1) of 401 KAR 34:220 including:

1. Waste application method and rate;
2. Measures to control soil pH;
3. Enhancement of microbial or chemical reactions;
4. Control of moisture content;

(c) Provisions for unsaturated zone monitoring, including:

1. Sampling equipment, procedures, and frequency;
2. Procedures for selecting sampling locations;
3. Analytical procedures;
4. Chain-of-custody control;
5. Procedures for establishing background values;
6. Statistical methods for interpreting results;

7. The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in Section 6(1) of 401 KAR 34:220;

(d) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to Section 4 of 401 KAR 34:020.

(e) The proposed dimensions of the treatment zone;

(3) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of Section 4 of 401 KAR 34:220. This submission must address the following items:

(a) Control of run-on;

(b) Collection and control of run-off;

(c) Minimization of run-off of hazardous constituents from the treatment zone;

(d) Management of collection and holding facilities associated with run-on and run-off control systems;

(e) Periodic inspection of the unit. This information should be included in the inspection plan submitted under Section 2(5) of 401 KAR 38:090;

(f) Control of wind dispersal of particulate matter, if applicable;

(4) If food chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under Section 5(1) of 401 KAR 34:220 will be conducted including:

(a) Characteristics of the food chain crop for which the demonstration will be made;

(b) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(c) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(d) Characteristics of the comparison crop including the location and conditions under which it was or will be grown.

(e) If food chain crops are to be grown, and cadmium is present in the land treated waste, a description of how the requirements of Section 5(2) of 401 KAR 34:220 will be complied with;

(f) A description of the vegetative cover to be applied to closed

portions of the facility, and a plan for maintaining such cover during the postclosure care period, as required under Section 8(1)(h) and (3)(b) of 401 KAR 34:220. This information should be included in the closure plan and, where applicable, the postclosure care plan submitted under Section 2(13) of 401 KAR 38:090;

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of Section 9 of 401 KAR 34:220 will be complied with;

(h) Incompatible wastes, or incompatible wastes and materials, shall not be placed in or on the same treatment zone in accordance with Section 10 of 401 KAR 34:220.

(i) A waste management plan for EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 (chlorinated dioxins, dibenzofurans and phenols) describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of Section 11 of 401 KAR 34:220. This submission must address the following items as specified in Section 11 of 401 KAR 34:220:

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials codisposed with these wastes; and

4. The effectiveness of additional treatment, design, or monitoring techniques.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:210. Specific Part B requirements for landfills.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.21

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.21]

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes [This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B requirements for landfills. [To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for landfills.]**

Section 1. Specific Part B Information Requirements for Landfills. The subject matter shall be governed by 40 C.F.R. 270.21, effective July 1, 2005.

[Section 1. Applicability. The requirements in this administrative regulation apply to all owners and operators of hazardous waste management sites or facilities that dispose of hazardous waste in landfills.]

Section 2. Additional Part B Requirements for Landfills. In addition to the information required by 401 KAR 38:080, 401 KAR 38:090 and 401 KAR 38:100, owners and operators of facilities that dispose or will dispose of hazardous waste in landfills, except as otherwise provided in Section 1 of 401 KAR 34:010 and Section 1 of 401 KAR 34:230, shall provide the following additional information:

(1) A list of hazardous wastes placed or to be placed in each

landfill or landfill cell;

(2) Detailed plans and an engineering report describing how the landfill is designed and is or will be constructed, operated, and maintained to comply with the requirements of Section 10 of 401 KAR 34:020 and Sections 2 to 4 of 401 KAR 34:230, addressing the following items as specified in 401 KAR 34:230:

(a) 1. The liner system and leachate collection and removal system (except for an existing portion of a landfill). If an exemption from the requirements for a liner and a leachate collection and removal system is sought as provided by Section 2(2) of 401 KAR 34:230, submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituent into the groundwater or surface water at any future time;

2. The double liner and leak (leachate) detection, collection, and removal system, if the landfill is required to comply with Section 2 of 401 KAR 34:230. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Section 3 of 401 KAR 34:230, submit appropriate information;

3. If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

4. The construction quality assurance (CQA) plan if required under 401 KAR 34:020;

5. Proposed action leakage rate, with rationale, if required under 401 KAR 34:230, and response action plan, if required under 401 KAR 34:230;

(b) Control of run-on;

(c) Control of run-off;

(d) Management of collection and holding facilities associated with run-on and run-off control systems; and

(e) Control of wind dispersal of particulate matter, where applicable.

(3) If an exemption from 401 KAR 34:060 is sought, as provided by Section 3(1) of 401 KAR 34:230, the owner or operator shall submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double liner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;

(4) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of Section 4(1) to (3) of 401 KAR 34:230. This information shall be included in the inspection plan submitted under Section 2(5) of 401 KAR 38:090;

(5) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with Section 6(1) of 401 KAR 34:230, and a description of how each landfill will be maintained and monitored after closure in accordance with Section 6(2) of 401 KAR 34:230. This information shall be included in the closure and postclosure plans submitted under Section 2(13) of 401 KAR 38:090;

(6) If ignitable or reactive wastes will be landfilled, an explanation of how the requirements of Section 7 of 401 KAR 34:230 will be complied with;

(7) Incompatible wastes, or incompatible wastes and materials shall not be landfilled in accordance with Section 8 of 401 KAR 34:230;

(8) If bulk or noncontainerized liquid waste or waste containing free liquids is to be landfilled, an explanation of how the requirements of Section 9 of 401 KAR 34:230 and KRS 224.46-520(2) will be complied with;

(9) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of Sections 10 and 11 of 401 KAR 34:230, as applicable, will be complied with; and

(10) A waste management plan for EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 (chlorinated dioxins, dibenzofurans and phenols) describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of Section 12 of 401 KAR 34:230 and KRS 224.46-520(2). This submission shall address the following items

as specified in Section 12 of 401 KAR 34:230 and KRS 224.46-520(2):

(a) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(b) The attenuative properties of underlying and surrounding soils or other materials;

(c) The mobilizing properties of other materials codisposed with these wastes; and

(d) The effectiveness of additional treatment, design, or monitoring techniques.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:230. Specific Part B requirements for miscellaneous units.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.23

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[, 40 C.F.R. 270.23]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste[224.40-305 and 224.46-520 require any person who treats, stores, recycles, or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the Environmental and Public Protection Cabinet.] (Natural Resources and Environmental Protection Cabinet.) [This chapter establishes the permitting process for hazardous waste sites or facilities. An overview of the permit program is found in the Necessity and Function of 401 KAR 38:040]. This administrative regulation establishes the specific Part B information requirements for miscellaneous units.

Section 1. Specific Part B Information Requirements for Miscellaneous Units. The subject matter shall be governed by 40 C.F.R. 270.23, effective July 1, 2005.

[Section 1. Specific Part B Information Requirements. Except as otherwise provided in Section 1 of 401 KAR 34:250, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units shall provide the following additional information:

(1) A detailed description of the unit being used or proposed for use, including the following:

(a) Physical characteristics, materials of construction, and dimensions of the unit;

(b) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of Sections 2 and 3 of 401 KAR 34:250; and

(c) For disposal units, a detailed description of the plans to comply with the postclosure requirements of Section 4 of 401 KAR 34:250.

(2) Detailed hydrologic, geologic, and meteorologic assessments and land use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of Section 2 of 401 KAR 34:250. If the applicant can demonstrate that he does not violate the environmental performance standards of Section 2 of 401 KAR 34:250 and the cabinet agrees with the demonstration, preliminary hydrologic, geologic, and meteorologic assessments shall suffice.

(3) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(4) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(5) Any additional information determined by the cabinet to be necessary for evaluation of compliance of the unit with the environmental performance standards of Section 2 of 401 KAR 34:250.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:240. Specific Part B requirements for process vents.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.24

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.24]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes [This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B requirements for process vents. [To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for process vents.]

Section 1. Specific Part B Information Requirements for Process Vents. The subject matter shall be governed by 40 C.F.R. 270.24, effective July 1, 2005.

[Section 1. Specific Part B Information Requirements for Process Vents. Except as otherwise provided in 401 KAR 34:010, owners and operators of facilities that have process vents to which 401 KAR 34:275 applies shall provide the following additional information:

(1) For facilities that cannot install a closed-vent system and control device to comply with the provisions 401 KAR 34:275 on the effective date that the facility becomes subject to the provisions of 401 KAR 34:275 or 401 KAR 35:275, an implementation schedule as specified in Section 4(1)(b) of 401 KAR 34:275.

(2) Documentation of compliance with the process vent standards in Section 3 of 401 KAR 34:275 including:

(a) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (that is, the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (for example, identify the hazardous waste management units on a facility plot plan).

(b) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions shall be made using operating parameter values (temperatures, flow rates, or concentrations for example) that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(c) Information and data used to determine whether or not a

process vent is subject to the requirements of Section 3 of 401 KAR 34:275.

(3) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of Section 3 of 401 KAR 34:275, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Section 6(2)(c) of 401 KAR 34:275.

(4) Documentation of compliance with Section 4 of 401 KAR 34:275, including:

(a) A list of all information references and sources used in preparing the documentation.

(b) Records, including the dates, of each compliance test required by Section 4(1) of 401 KAR 34:275.

(c) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" or other engineering texts acceptable to the cabinet that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Section 6(2)(d)3 of 401 KAR 34:275.

(d) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(e) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of ninety five (95) weight percent or greater unless the total organic emission limits of Section 3(1) of 401 KAR 34:275 for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than ninety five (95) weight percent.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 38:250. Specific Part B requirements for equipment.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.25

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.25]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes [This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B requirements for equipment. [To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for equipment.]

Section 1. Specific Part B Information Requirements for Equipment. The subject matter shall be governed by 40 C.F.R. 270.25, effective July 1, 2005.

[Section 1. Specific Part B Information Requirements for Equipment. Except as otherwise provided in 401 KAR 34:010, owners and operators of facilities that have equipment to which 401 KAR 34:280 applies shall provide the following additional information:

(1) For each piece of equipment to which 401 KAR 34:280 applies:

- (a) Equipment identification number and hazardous waste management unit identification.
- (b) Approximate locations within the facility (for example, identify the hazardous waste management unit on a facility plot plan).
- (c) Type of equipment (for example, a pump or pipeline valve).
- (d) Percent by weight total organics in the hazardous waste stream at the equipment.
- (e) Hazardous waste state at the equipment (for example, gas, vapor, or liquid).
- (f) Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals").

(2) For facilities that cannot install a closed-vent system and control device to comply with the provisions of 401 KAR 34:280 on the effective date that the facility becomes subject to the provisions of 401 KAR 34:280 or 35:280, an implementation schedule as specified in Section 4(1)(b) of 401 KAR 34:275.

(3) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Section 6(2)(c) of 401 KAR 34:275.

(4) Documentation that demonstrates compliance with the equipment standards in Sections 3 to 10 of 401 KAR 34:280. This documentation shall contain the records required under Section 15 of 401 KAR 34:280. The cabinet may request further documentation before deciding if compliance has been demonstrated.

(5) Documentation to demonstrate compliance with Section 10 of 401 KAR 34:280 shall include the following information:

- (a) A list of all information references and sources used in preparing the documentation.
- (b) Records, including the dates, of each compliance test required by Section 4(10) of 401 KAR 34:275.
- (c) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "ATPI Course 415: Control of Gaseous Emissions" or other engineering texts acceptable to the cabinet that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Section 6(2)(d)3 of 401 KAR 34:275.
- (d) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.
- (e) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of ninety-five (95) weight percent or greater.]

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: January 3, 2007 at 2 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 38:260. Specific Part B information requirements for boilers and industrial furnaces burning hazardous waste.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.22
 STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.22]
 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-

520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B requirements for boilers and industrial furnaces burning hazardous waste.[To implement provisions of KRS 224.46-520 and to establish specific Part B requirements for boilers and industrial furnaces burning hazardous waste.]

Section 1. Specific Part B Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste. The subject matter shall be governed by 40 C.F.R. 270.22, effective July 1, 2005.

[Section 1. Specific Part B Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste. (1) Trial burns.

(a) General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by Section 5 of 401 KAR 36:020, standards to control particulate matter provided by Section 6 of 401 KAR 36:020, standards to control metals emissions provided by Section 7 of 401 KAR 36:020, or standards to control hydrogen chloride or chlorine gas emissions provided by Section 8 of 401 KAR 36:020 shall conduct a trial burn to demonstrate conformance with those standards and shall submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section 7 of 401 KAR 38:060.

1. A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of Sections 5 to 8 of 401 KAR 36:020 and paragraphs (b) to (e) of this subsection; and

2. The owner or operator may submit data in lieu of a trial burn, as prescribed in paragraph (f) of this subsection.

(b) Waiver of trial burn for destruction and removal efficiency (DRE):

1. Boilers operated under special operating requirements. When seeking to be permitted under Sections 5(1)(d) and 11 of 401 KAR 36:020 that automatically waive the DRE trial burn, the owner or operator of a boiler shall submit documentation that the boiler operates under the special operating requirements provided by Section 11 of 401 KAR 36:020.

2. Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by Sections 5(1)(e) and 10 of 401 KAR 36:020 that waive the DRE trial burn, the owner or operator shall submit:

a. Documentation that the device is operated in conformance with the requirements of Section 10(1)(a) of 401 KAR 36:020.

b. Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in 401 KAR 31:170, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained. The analysis shall rely on analytical techniques specified in test methods for evaluating solid waste, physical and chemical methods incorporated by reference in Section 3 of 401 KAR 30:010.

c. Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in clause b of this subparagraph using procedures provided by Section 10(1)(b)2 of 401 KAR 36:020.

d. Results of emissions dispersion modeling for emissions identified in clause c of this subparagraph using modeling procedures prescribed by Section 7(8) of 401 KAR 36:020. The cabinet shall review the emission modeling conducted by the applicant to determine conformance with these procedures. The cabinet shall either approve the modeling or determine that alternate or supplementary modeling is appropriate.

e. Documentation that the maximum annual average ground level concentration of each constituent identified in clause b of this subparagraph quantified in conformance with clause d of this subparagraph does not exceed the allowable ambient level established in Sections 4 or 5 of 401 KAR 36:025. The acceptable ambi-

ent concentration for emitted constituents for which a specific reference air concentration has not been established in Section 4 of 401 KAR 36:025 or risk specific dose has not been established in Section 5 of 401 KAR 36:025 is one-tenth (0.1) micrograms per cubic meter as noted in the footnote to Section 4 of 401 KAR 36:025.

(c) Waiver of trial burn for metals. When seeking to be permitted under the Tier I (or adjusted Tier I) metals feed rate screening limits provided by Section 7(2) and (5) of 401 KAR 36:020 that control metals emissions without requiring a trial burn, the owner or operator shall submit:

1. Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

2. Documentation of the concentration of each metal controlled by Section 7(2) or (5) of 401 KAR 36:020 in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

3. Documentation of how the applicant will ensure that the Tier I feed rate screening limits provided by Section 7(2) or (5) of 401 KAR 36:020 will not be exceeded during the averaging period provided by that subsection;

4. Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Section 7(2)(c) to (e) of 401 KAR 36:020;

5. Documentation of compliance with the provisions of Section 7(2)(f) of 401 KAR 36:020, if applicable, for facilities with multiple stacks;

6. Documentation that the facility does not fail the criteria provided by Section 7(2)(g) of 401 KAR 36:020 for eligibility to comply with the screening limits; and

7. Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

(d) Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of Section 10(2) of 401 KAR 36:020 which waives the particulate standard (and trial burn to demonstrate conformance with the particulate standard), applicants shall submit documentation supporting conformance with paragraphs (b)2 and (c) of this subsection.

(e) Waiver of trial burn for HCl and Cl₂. When seeking to be permitted under the Tier I (or adjusted Tier I) feed rate screening limits for total chloride and chlorine provided by Section 8(2)(a) and (5) of 401 KAR 36:020 that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl₂) without requiring a trial burn, the owner or operator shall submit:

1. Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

2. Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

3. Documentation of how the applicant shall ensure that the Tier I (or adjusted Tier I) feed rate screening limits provided by Section 8(2)(a) or (5) of 401 KAR 36:020 will not be exceeded during the averaging period provided by that subsection;

4. Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Section 8(2)(c) of 401 KAR 36:020;

5. Documentation of compliance with the provisions of Section 8(2)(d) of 401 KAR 36:020, if applicable, for facilities with multiple stacks;

6. Documentation that the facility does not fail the criteria provided by Section 8(2)(e) of 401 KAR 36:020 for eligibility to comply with the screening limits; and

7. Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(f) Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with Sections 5 to 8 of 401 KAR 36:020 and Section 7 of 401 KAR 38:060 by providing the information required by Section 7 of 401 KAR 36:020 from previous compliance testing of the device in conformance with Section 4 of 401 KAR 36:020, or from compli-

ance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by Section 7 of 401 KAR 38:060 shall be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information shall be provided. The cabinet shall approve a permit application without a trial burn if he finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify (under Section 3 of 401 KAR 36:020) operating conditions that will ensure conformance with Section 3(3) of 401 KAR 36:020. In addition, the following information shall be submitted:

1. For a waiver from any trial burn:

a. A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;

b. The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and

c. Such supplemental information as the cabinet finds necessary to achieve the purposes of this subsection.

2. For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in Section 5(1) of 401 KAR 36:020. This analysis shall specify the constituents in 401 KAR 31:170, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(2) Alternative HC limit for industrial furnaces with organic matter in raw materials. Owners and operators of industrial furnaces requesting an alternative HC limit under Section 5(6) of 401 KAR 36:020 shall submit the following information at a minimum:

(a) Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

(b) Documentation of the proposed baseline flue gas HC (and CO) concentration, including data on HC (and CO) levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

(c) Test burn protocol to confirm the baseline HC (and CO) level including information on the type and flow rate of all feedstreams, point of introduction of all feedstreams, total organic carbon content (or other appropriate measure of organic content) of all nonfuel feedstreams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from non-fuel sources;

(d) Trial burn plan to:

1. Demonstrate that flue gas HC (and CO) concentrations when burning hazardous waste do not exceed the baseline HC (and CO) level; and

2. Identify the types and concentrations of organic compounds listed in 401 KAR 31:170, that are emitted when burning hazardous waste in conformance with procedures prescribed by the cabinet;

(e) Implementation plan to monitor over time changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

(f) Such other information as the cabinet finds necessary to achieve the purposes of this subsection.

(3) Alternative metals implementation approach. When seeking to be permitted under an alternative metals implementation approach under Section 7(b) of 401 KAR 36:020, the owner or operator shall submit documentation specifying how the approach ensures compliance with the metals emissions standards of Section 7(3) or (4) of 401 KAR 36:020 and how the approach can be effectively implemented and monitored. Further, the owner or operator shall provide such other information that the cabinet finds necessary to achieve the purposes of this subsection.

(4) Automatic waste feed cutoff system. Owners and operators shall submit information describing the automatic waste feed cutoff

system, including any pre-alarm systems that may be used.

(5) Direct transfer. Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles (containers, as defined in Section 12 of 401 KAR 36:020) directly to the boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by Section 12 of 401 KAR 36:020.

(6) Residues. Owners and operators that claim that their residues are excluded from regulation under the provisions of Section 13 of 401 KAR 36:020 shall submit information adequate to demonstrate conformance with these provisions.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:270. Specific Part B information requirements for drip pads.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.26

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.26]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B information requirements for drip pads.[To implement provisions of KRS 224.46-520 and to establish specific Part B information requirements for drip pads.]

Section 1. Specific Part B Information Requirements for Drip Pads. The subject matter shall be governed by 40 C.F.R. 270.26, effective July 1, 2005.

[Section 1. Special Part B Information Requirements for Drip Pads. Except as otherwise provided by 401 KAR 34:100, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads shall provide the following additional information:

(1) A list of hazardous wastes placed or to be placed on each drip pad.

(2) If an exemption is sought to 401 KAR 34:060, as provided by Section 1 of 401 KAR 34:060, detailed plans and an engineering report describing how the requirements of Section 1(2)(b) of 401 KAR 34:060 will be met.

(3) Detailed plans and an engineering report describing how the drip pad will be designed, constructed, operated and maintained to meet the requirements of Section 4 of 401 KAR 34:285, including the as-built drawings and specifications. This submission shall address the following items as specified in Section 5 of 401 KAR 34:285:

(a) The design characteristics of the drip pad.

(b) The liner system.

(c) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time.

(d) Practices designed to maintain drip pads.

(e) The associated collection system.

(f) Control of run-on to the drip pad.

(g) Control of run-off from the drip pad.

(h) The interval at which drippage and other materials will be

removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad.

(i) Procedures for cleaning the drip pad at least once every seven (7) days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(j) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized.

(k) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and nonpressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices.

(l) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(n) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Section 4 of 401 KAR 34:285. This information shall be included in the inspection plan submitted under Section 2(5) of 401 KAR 38:090.

(o) A certification signed by an engineer, stating that the drip pad design meets the requirements of Section 4(1) to (6) of 401 KAR 34:285.

(p) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under Section 6(1) of 401 KAR 34:285. For any waste not to be removed from the drip pad upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Section 6(1) and (2) of 401 KAR 34:230 will be complied with. This information shall be included in the closure plan and, where applicable, the postclosure plan submitted under Section 2(13) of 401 KAR 38:090.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:290. Specific Part B information requirements for air emission controls[control] for tanks, surface impoundments, and containers.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.27

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[40 C.F.R. 270.27]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B information requirements for air emission controls[control] for tanks, surface impoundments, and containers.

Section 1. Specific Part B Information Requirements for Air

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Emission ~~Controls~~[Control] for Tanks, Surface Impoundments, and Containers. The subject matter shall be governed by 40 C.F.R. 270.27, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:300. Specific Part B information requirements for postclosure permits.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.28

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270.28~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] specific Part B information requirements for post-closure permits.

Section 1. Specific Part B Information Requirements for Post-closure Permits. (1) The subject matter shall be governed by 40 C.F.R. 270.28, effective July 1, 2005.

(2) The requirements of 40 C.F.R. 270.14 referred to in the federal regulation referenced in subsection (1) of this section shall also include the provisions[modifications, exceptions, and additions] that are specific to the Commonwealth of Kentucky as established in[located at] 401 KAR 38:090.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:310. Permit denial.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.29

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270.29~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] information related to permit denials.

Section 1. Permit Denial. The subject matter shall be governed by 40 C.F.R. 270.29, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:320. Remedial action plans.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270 Subpart H

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270 Subpart H~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative regulation implements provisions of KRS 224.46-520 by establishing] information related to remedial action plans (RAP).

Section 1. General Information. The subject matter shall be governed by 40 C.F.R. 270.80 through 40 C.F.R. 270.90, effective July 1, 2005.

Section 2. Applying for a RAP. The subject matter shall be governed by 40 C.F.R. 270.95 through 40 C.F.R. 270.125, effective July 1, 2005.

Section 3. Getting a RAP Approved. The subject matter shall be governed by 40 C.F.R. 270.130 through 40 C.F.R. 270.165, effective July 1, 2005.

Section 4. How May a RAP Be Modified, Revoked and Reissued, or Terminated? The subject matter shall be governed by 40 C.F.R. 270.170 through 40 C.F.R. 270.205, effective July 1, 2005.

Section 5. Operating Under a RAP. The subject matter shall be governed by 40 C.F.R. 270.210 through 40 C.F.R. 270.225, effective July 1, 2005.

Section 6. Obtaining a RAP for an Off-site Location. The subject matter shall be governed by 40 C.F.R. 270.230, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:330. Integration with Maximum Achievable Control Technology (MACT) Standards.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.99, 40 C.F.R. 270.235[270 Subpart I]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520[~~40 C.F.R. 270 Subpart I~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. This administrative regulation establishes[This administrative

trative regulation implements provisions of KRS 224.46-520 and 224.46-530 by providing options for incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces to minimize emissions from startup, shutdown, and malfunction events.

Section 1. General Information. The subject matter shall be governed by 40 C.F.R. 270.235, effective July 1, 2005.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 38:500. Provisions for approval by the local government or the Kentucky Regional Integrated Treatment and Disposal Facility Siting Board.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.99

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-520

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for permitting of persons who treat, store, recycle, or dispose of hazardous waste. KRS 224.46-830 [224.40-305 and 224.46-520 require any person who treats, stores, recycles, or disposes of hazardous waste to first obtain a hazardous waste site or facility permit from the cabinet. KRS 224.46-810 through 224.870, 224.40-310] and 224.46-520(1) provide [require] that the cabinet shall [may] not issue a permit to a regional integrated waste treatment and disposal demonstration facility without approval by the Kentucky Regional Integrated Waste Treatment and Disposal Facility Siting Board. KRS 225.40-310(5) and (6) and 224.46-520(1) provide [require] that the cabinet shall [may] not issue a permit to any hazardous waste disposal facility, except for a regional integrated waste treatment and disposal facility, without approval from the local government. This administrative regulation establishes the permitting process for hazardous waste sites or facilities and [This administrative regulation] establishes provisions for approval by either the local government or the Kentucky Regional Integrated Waste Treatment and Disposal Facility Siting Board prior to obtaining a permit for a hazardous waste disposal site or facility from the cabinet.

Section 1. [Definitions of Terms Used in this Administrative Regulation. The definitions previously found in this section have been relocated to the definition administrative regulation for this chapter, which is 401 KAR 38:005.

Section 2.] Applicability. (1) This administrative regulation shall apply [applies] to owners and operators of new or proposed hazardous waste landfills, incinerators, or other sites or facilities for the land disposal of hazardous waste.

(2)(a) This administrative regulation shall apply [applies] to owners and operators of existing hazardous waste landfills, incinerators, or other sites or facilities for the land disposal of hazardous waste who request a permit modification which does not meet the criteria of a Class 1 or 2 [I or II] [minor] modification as established in 401 KAR 38:040, Section 3.

(b) [defined in Section 3 of 401 KAR 38:040.] For permit modifications which are not Class 1 or 2 [I or II] [minor] modifications, approval of the local government or board shall only concern those conditions to be included in the permit modification, in accordance with [Section 2(3) of] 401 KAR 38:050, Section 2(3).

(3) This administrative regulation shall apply [applies] to own-

ers and operators of new and existing hazardous waste treatment facilities [(as defined in Section 1 of 401 KAR 38:005)] and hazardous waste storage facilities [(as defined in Section 1 of 401 KAR 38:005)] who request a permit modification to include a disposal facility [(as defined in Section 1 of 401 KAR 38:005)] instead of or in addition to any permitted hazardous waste activity already conducted by the owner or operator.

Section 2. [3.] Local Government Approval. The cabinet shall not issue a permit [in accordance with this chapter,] to construct or operate a hazardous waste disposal facility or incinerator [site or facility which meets the requirements of Section 2 of this administrative regulation], unless:

- (1) The cabinet has received written approval from the local government in accordance with KRS 224.46-825(6) [224.855(6)]; or
- (2) The hazardous waste site or facility is not subject to KRS 224.40-310(6) in accordance with KRS 224.40-310(7).

Section 3. [4.] Board Approval. The cabinet shall not issue a permit [in accordance with this chapter,] to construct or operate a hazardous waste site or facility which meets the definition of a regional integrated waste treatment and disposal demonstration facility established in KRS 224.46-810(4) [in KRS 224.46-810(4)], unless the board issues a Certificate of Environmental Safety and Public Necessity in accordance with KRS 224.46-830.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 43:005. Definitions for [related to] 401 KAR Chapter 43.

RELATES TO: KRS Subchapters 224.01, 224.10, 224.40, 224.43, 224.46, 40 C.F.R. 273.6

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(30) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste]. This administrative regulation defines essential terms that are used in 401 KAR Chapter 43. Some federal terms have been modified [this chapter. The majority of terms defined in this administrative regulation are equivalent to federal terms contained in 40 C.F.R. Parts 260 through 299. Some terms have been clarified to eliminate federal ambiguities and] to conform to Kentucky statutory mandates. Definitions contained in KRS Chapter 224 have been referenced to the appropriate statutory citation. Some terms do not have a federal counterpart. These terms have been added to clarify requirements and provisions of KRS Chapter 224 and 401 KAR Chapter 43 [this chapter].

Section 1. Definitions. Except as provided in this section, the definitions established in 40 C.F.R. 260.10, effective September 9, 2005, shall apply [The subject matter shall be governed by 40 C.F.R. 260.10, effective September 9, 2005. The following modifications, exceptions, and additions set forth in this section shall amend 40 C.F.R. 260.10].

(1) "Administrator", "agency", "assistant administrator", "regional administrator", "director", or "regional director" means cabinet as defined in KRS 224.01-010(9).

(2) "Cabinet" is defined by KRS 224.01-010(9).

(3) "Conditionally exempt small quantity generator" means:

(a) A generator who generates no more than 100 kilograms of

VOLUME 33, NUMBER 12 – JUNE 1, 2007

hazardous waste in a calendar month; or

(b) A generator who generates acutely hazardous waste listed in 401 KAR 31:040, Sections 2, 3, or 4[(5)], in a calendar month in quantities no greater than one (1) kilogram. [All quantities of that acutely hazardous waste are subject to administrative regulation under 401 KAR Chapters 32 through 39, and the notification and permitting requirements of KRS 224.01-400, 224.40-310, 224.46-510, 224.46-580, and 224.50-130 to 224.50-413.]

(4) "Disposal" is defined by KRS 224.01-010(10).

(5) "Environmental Protection Agency" or "EPA" means the Kentucky Department for Environmental Protection except if [when] used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".

(6) "EPA Regional Office" or "regional EPA office" means the "cabinet", as defined in KRS 224.01-010(9), in the federal regulations cited in the following administrative regulations:

(a) 401 KAR 43:020, Section 9;

(b) 401 KAR 43:030, Section 10 [9]; and

(c) 401 KAR 43:050, Section 2.

(7) "Federal Register" means the "Kentucky Administrative Register" as described in KRS 13A.050.

(8) "Generator" is defined by KRS 224.01-010(13).

(9) "Hazardous waste" is defined by KRS 224.01-010(31)(b).

(10) "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(11) "Manifest" is defined by KRS 224.01-010(37).

(12) "Off-site" means properties noncontiguous to the site.

(13) "Person" is defined by KRS 224.01-010(17).

(14) "Publicly owned treatment works" or "POTW" is defined by KRS 224.01-010(19).

(15) "Solid waste" is [means "waste" as] defined in KRS 224.01-010(31)(a).

(16) "Storage" is defined by KRS 224.01-010(28).

(17) "Transfer facility" is defined by KRS 224.01-010(48).

(18) "Transportation" is defined by KRS 224.01-010(29).

(19) "Treatment" is defined by KRS 224.01-010(30).

(20) "United States" means the Commonwealth of Kentucky [where appropriate].

(21) "Used oil" is defined by KRS 224.50-545(2)(a).

(22) "Water" [Waters?] or "Waters of the Commonwealth" is defined by KRS 224.01-010(33).

(23) "Waste" is defined by KRS 224.01-010(31).

Section 2. Substitution of Federal References. (1) The following federal parts and subparts, which are cited by federal regulations referenced in 401 KAR Chapter 43, shall be substituted with the state administrative regulations listed below.

Federal Regulation	State Regulation
40 C.F.R. Part 260	401 KAR Chapter 30
40 C.F.R. 260 Subpart A	401 KAR 30:020
40 C.F.R. 260 Subpart B	401 KAR 30:005, 401 KAR 30:020, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, and 401 KAR 44:005
40 C.F.R. 260 Subpart C	401 KAR 30:035
40 C.F.R. Part 261	401 KAR Chapter 31
40 C.F.R. 261 Subpart A	401 KAR 31:010
40 C.F.R. 261 Subpart B	401 KAR 31:020
40 C.F.R. 261 Subpart C	401 KAR 31:030
40 C.F.R. 261 Subpart D	401 KAR 31:040
40 C.F.R. Part 262	401 KAR Chapter 32
40 C.F.R. 262 Subpart A	401 KAR 32:010
40 C.F.R. 262 Subpart B	401 KAR 32:020
40 C.F.R. 262 Subpart C	401 KAR 32:030
40 C.F.R. 262 Subpart D	401 KAR 32:040
40 C.F.R. 262 Subpart E	401 KAR 32:050, Sections 1-9

40 C.F.R. 262 Subpart F	401 KAR 32:050, Section 10
40 C.F.R. 262 Subpart G	401 KAR 32:060
40 C.F.R. 262 Subpart H	401 KAR 32:065
40 C.F.R. Part 263	401 KAR Chapter 33
40 C.F.R. 263 Subpart A	401 KAR 33:010
40 C.F.R. 263 Subpart B	401 KAR 33:020
40 C.F.R. 263 Subpart C	401 KAR 33:030
40 C.F.R. Part 264	401 KAR Chapter 34
40 C.F.R. 264 Subpart A	401 KAR 34:010
40 C.F.R. 264 Subpart B	401 KAR 34:020
40 C.F.R. 264 Subpart C	401 KAR 34:030
40 C.F.R. 264 Subpart D	401 KAR 34:040
40 C.F.R. 264 Subpart E	401 KAR 34:050
40 C.F.R. 264 Subpart F	401 KAR 34:060
40 C.F.R. 264 Subpart G	401 KAR 34:070
40 C.F.R. 264 Subpart H	401 KAR 34:080, 401 KAR 34:090, 401 KAR 34:100, 401 KAR 34:110, 401 KAR 34:120, 401 KAR 34:130
40 C.F.R. 264 Subpart I	401 KAR 34:180
40 C.F.R. 264 Subpart J	401 KAR 34:190
40 C.F.R. 264 Subpart K	401 KAR 34:200
40 C.F.R. 264 Subpart L	401 KAR 34:210
40 C.F.R. 264 Subpart M	401 KAR 34:220
40 C.F.R. 264 Subpart N	401 KAR 34:230
40 C.F.R. 264 Subpart O	401 KAR 34:240
40 C.F.R. 264 Subpart S	401 KAR 34:287
40 C.F.R. 264 Subpart W	401 KAR 34:285
40 C.F.R. 264 Subpart X	401 KAR 34:250
40 C.F.R. 264 Subpart AA	401 KAR 34:275
40 C.F.R. 264 Subpart BB	401 KAR 34:280
40 C.F.R. 264 Subpart CC	401 KAR 34:281
40 C.F.R. 264 Subpart DD	401 KAR 34:245
40 C.F.R. 264 Subpart EE	401 KAR 34:370
40 C.F.R. Part 265	401 KAR Chapter 35
40 C.F.R. 265 Subpart A	401 KAR 35:010
40 C.F.R. 265 Subpart B	401 KAR 35:020
40 C.F.R. 265 Subpart C	401 KAR 35:030
40 C.F.R. 265 Subpart D	401 KAR 35:040
40 C.F.R. 265 Subpart E	401 KAR 35:050
40 C.F.R. 265 Subpart F	401 KAR 35:060
40 C.F.R. 265 Subpart G	401 KAR 35:070
40 C.F.R. 265 Subpart H	401 KAR 35:080, 401 KAR 35:090, 401 KAR 35:100, 401 KAR 35:110, 401 KAR 35:120, 401 KAR 35:130
40 C.F.R. 265 Subpart I	401 KAR 35:180
40 C.F.R. 265 Subpart J	401 KAR 35:190
40 C.F.R. 265 Subpart K	401 KAR 35:200
40 C.F.R. 265 Subpart L	401 KAR 35:210
40 C.F.R. 265 Subpart M	401 KAR 35:220
40 C.F.R. 265 Subpart N	401 KAR 35:230
40 C.F.R. 265 Subpart O	401 KAR 35:240
40 C.F.R. 265 Subpart P	401 KAR 35:250
40 C.F.R. 265 Subpart Q	401 KAR 35:260
40 C.F.R. 265 Subpart R	401 KAR 35:270
40 C.F.R. 265 Subpart W	401 KAR 35:285
40 C.F.R. 265 Subpart AA	401 KAR 35:275
40 C.F.R. 265 Subpart BB	401 KAR 35:280
40 C.F.R. 265 Subpart CC	401 KAR 35:281
40 C.F.R. 265 Subpart DD	401 KAR 35:245
40 C.F.R. 265 Subpart EE	401 KAR 35:350
40 C.F.R. Part 266	401 KAR Chapter 36

VOLUME 33, NUMBER 12 – JUNE 1, 2007

40 C.F.R. 266 Subpart C	401 KAR 36:030
40 C.F.R. 266 Subpart F	401 KAR 36:060
40 C.F.R. 266 Subpart G	401 KAR 36:070
40 C.F.R. 266 Subpart H	401 KAR 36:020
40 C.F.R. 266 Subpart M	401 KAR 36:080
40 C.F.R. 266 Subpart N	401 KAR 36:090
40 C.F.R. Part 268	401 KAR Chapter 37
40 C.F.R. 268 Subpart A	401 KAR 37:010
40 C.F.R. 268 Subpart B	401 KAR 37:020
40 C.F.R. 268 Subpart C	401 KAR 37:030
40 C.F.R. 268 Subpart D	401 KAR 37:040
40 C.F.R. 268 Subpart E	401 KAR 37:050
40 C.F.R. Part 270	401 KAR Chapter 38
40 C.F.R. 270 Subpart A	401 KAR 38:010
40 C.F.R. 270 Subpart B	401 KAR 38:070, 401 KAR 38:080, 401 KAR 38:090, 401 KAR 38:150 through 401 KAR 38:310
40 C.F.R. 270 Subpart C	401 KAR 38:030
40 C.F.R. 270 Subpart D	401 KAR 38:040, Sections 1 through 4, 7
40 C.F.R. 270 Subpart E	401 KAR 38:040, Sections 5 and 6
40 C.F.R. 270 Subpart F	401 KAR 38:060
40 C.F.R. 270 Subpart G	401 KAR 38:020
40 C.F.R. 270 Subpart H	401 KAR 38:320
40 C.F.R. 270 Subpart I	401 KAR 38:330
[40 C.F.R. 270 Subpart J	401 KAR 38:340]
40 C.F.R. Part 124	401 KAR 38:050
40 C.F.R. Part 273	401 KAR Chapter 43
40 C.F.R. 273 Subpart A	401 KAR 43:010
40 C.F.R. 273 Subpart B	401 KAR 43:020
40 C.F.R. 273 Subpart C	401 KAR 43:030
40 C.F.R. 273 Subpart D	401 KAR 43:040
40 C.F.R. 273 Subpart E	401 KAR 43:050
40 C.F.R. 273 Subpart F	401 KAR 43:060 [43:070]
40 C.F.R. 273 Subpart G	401 KAR 43:070 [43:080]
40 C.F.R. Part 279	401 KAR Chapter 44
40 C.F.R. 279 Subpart A	401 KAR 44:005
40 C.F.R. 279 Subpart B	401 KAR 44:010
40 C.F.R. 279 Subpart C	401 KAR 44:020
40 C.F.R. 279 Subpart D	401 KAR 44:030
40 C.F.R. 279 Subpart E	401 KAR 44:040
40 C.F.R. 279 Subpart F	401 KAR 44:050
40 C.F.R. 279 Subpart G	401 KAR 44:060
40 C.F.R. 279 Subpart H	401 KAR 44:070
40 C.F.R. 279 Subpart I	401 KAR 44:080

(2) The requirements of the following federal regulations, which are referenced in 401 KAR Chapter 43, shall include the modifications, exceptions, and additions that are specific to the Commonwealth of Kentucky set forth in the following state administrative regulations referenced in the table below.

Federal Regulation	State Regulation
40 C.F.R. 260.10	401 KAR 30:005, 401 KAR 30:020, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, and 401 KAR 44:005
40 C.F.R. 264.1082	401 KAR 34:281, Section 2
40 C.F.R. 266.205	401 KAR 36:080, Section 6
40 C.F.R. 270.61	401 KAR 38:060, Section 2
40 C.F.R. 273.13	401 KAR 43:020, Section 4
40 C.F.R. 273.33	401 KAR 43:030, Section 5 [4]

(3) The following federal regulations, which are cited by the federal regulations referenced in 401 KAR Chapter 43, shall be replaced with the corresponding state administrative regulation identified in the table below.

Federal Regulation	State Regulation
40 C.F.R. Part 60 Appendix A	401 KAR 59:020
[40 C.F.R. Part 124	401 KAR 38:050]

40 C.F.R. Part 257	401 KAR Chapter 47
40 C.F.R. Part 258	401 KAR Chapter 48
40 C.F.R. 264.140	401 KAR 34:080, Section 2
40 C.F.R. 264.141	401 KAR 34:080, Section 1 [3]
40 C.F.R. 264.142	401 KAR 34:090, Section 1
40 C.F.R. 264.143	401 KAR 34:090, Sections 2 through 12
40 C.F.R. 264.144	401 KAR 34:100, Section 1
40 C.F.R. 264.145	401 KAR 34:100, Sections 2 through 12
40 C.F.R. 264.146	401 KAR 34:110
40 C.F.R. 264.147	401 KAR 34:120
40 C.F.R. 264.148	401 KAR 34:130
40 C.F.R. 265.140	401 KAR 35:080, Section 2
40 C.F.R. 265.141	401 KAR 35:080, Section 1
40 C.F.R. 265.142	401 KAR 35:090, Section 1
40 C.F.R. 265.143	401 KAR 35:090, Sections 2 through 11
40 C.F.R. 265.144	401 KAR 35:100, Section 1
40 C.F.R. 265.145	401 KAR 35:100, Sections 2 through 11
40 C.F.R. 265.146	401 KAR 35:110
40 C.F.R. 265.147	401 KAR 35:120
40 C.F.R. 265.148	401 KAR 35:130
40 C.F.R. 266 Appendix I, Table I-D	401 KAR 36:025, Section 1(2)(a)
40 C.F.R. 266 Appendix I, Table I-E	401 KAR 36:025, Section 1(2)(b)
40 C.F.R. 270.51	401 KAR 38:040, Section 6
40 C.F.R. Part 280	401 KAR Chapter 42

[Definitions. Unless otherwise specifically defined in KRS Chapter 224 or otherwise specifically indicated by context, terms in 401 KAR Chapter 43 shall have the meanings given in this section.]

(1) "100-year floodplain" means any land area which is subject to a one (1) percent or greater chance of flooding in any given year from any source.

(2) "100-year flood" means a flood that has a one (1) percent chance of being equaled or exceeded in any given year.

(3) "Aboveground tank" means a device meeting the definition of "tank" and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

(4) "Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

(5) "Accumulated speculatively" means that a material is accumulated before being recycled.

(a) A material is not accumulated speculatively, if the person accumulating it can show:

1. That the material is potentially recyclable and has a feasible means of being recycled; and

2. That — during the calendar year (commencing on January 1) — the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five (75) percent by weight or volume of the amount of that material accumulated at the beginning of the calendar year (including any material accumulated from previous years).

(b) In calculating the percentage of turnover, the seventy-five (75) percent requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units that would be exempt from administrative regulation under Section 4(3) of 401 KAR 31:010 are not to be included in making the calculation. (Materials that are already defined as wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling.

(6) "Active fault" means a land area which, according to the weight of geological evidence, has a reasonable probability of being affected by movement along a fault to the extent that a waste site or facility would be damaged and thereby pose a threat to

human health and the environment.

(7) "Active life" of a facility means the period from the initial receipt of waste at a waste site or facility until the cabinet receives certification of final closure.

(8) "Active portion" means any area of a facility where treatment, storage, or disposal operations are being or have been conducted and which have not been closed. It includes the treated area of a landfarm and the active face of a landfill. Covered, closed, or inactive portions of landfills, building roofs, and roads are excluded unless designated as "active portions" by the cabinet.

(9) "Admixed liner" means a liner made from a mixture of any of a multitude of materials, often asphalt or cement, with widely varying physical and chemical properties. Admixed liners shall be demonstrated to be structurally sound and chemically resistant to the waste placed in it so as to be capable of supporting the waste without cracking or disintegrating or allowing waste or leachate to escape.

(10) "Agricultural waste" means any nonhazardous waste resulting from the production and processing of on the farm agricultural products, including manures, prunings and crop residues.

(11) "Air stripping operation" is a desorption operation employed to transfer one (1) or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble cap, sieve, or valve type plate towers are among the process configurations used for contacting the air and a liquid.

(12) "Ampule" means a small sealed glass container for one (1) dose of sterile medicine.

(13) "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to hazardous waste management units including tanks between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal off site.

(14) "Application" means the form approved by the cabinet for applying for a permit, including any additions, revisions or modifications and any narrative and drawings required by 401 KAR Chapters 30 to 48. The term includes: Part A of the application (Part A); Part B of the application (Part B); notice of intent; administration application; special waste application; or technical application.

(15) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(16) "As received waste" refers to the waste as received in the shipment from the generator or sample collector.

(17) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

(18) "Attenuation" means any decrease in the maximum concentration or total quantity of an applied chemical or biological constituent in a fixed time or distance traveled resulting from a physical, chemical, or biological reaction or transformation occurring in the zone of aeration or zone of saturation.

(19) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit or part of a facility, such as the plant manager, superintendent, or person of equivalent responsibility.

(20) "Average volatile organic concentration" or "average VO concentration" means the mass weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Section 4 of 401 KAR 35:281.

(21) "Base flood" means a flood that has a one (1) percent or greater chance of recurring in any year, or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

(22) "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(23) "Board" shall have the meaning specified in KRS 224.46-

810.

(24) "Bodily injury" shall have the meaning given by applicable Kentucky statutes. Bodily injury does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for bodily injury.

(25) "Boiler" means an enclosed device using control flame combustion and having the following characteristics:

(a) 1. The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

2. The unit's combustion chamber and primary energy recovery section(s) shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section (such as water walls and superheaters) shall be physically formed into one (1) manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream) and fluidized bed combustion units; and

3. While in operation, the unit shall maintain a thermal energy recovery efficiency of at least sixty (60) percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

4. The unit shall export and utilize at least seventy-five (75) percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(b) The unit is one (1) which the cabinet has determined, on a case-by-case basis, to be a boiler, after considering the standards in 401 KAR 30:080.

(26) "Bottoms receiver" means a container or tank used to receive and collect heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(27) "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient.

(28) "By-product" is a material that is not one (1) of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(29) "Cabinet" shall have the meaning specified in KRS 224.01-010.

(30) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(31) "Cation exchange capacity" means the sum of exchangeable cations a soil can absorb expressed in milliequivalents per 100 grams of soil as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing by the summation method for distinctly acid soils or the sodium acetate method for neutral, calcareous, or saline soils.

(32) "Certificate" shall have the meaning specified in KRS 224.46-810.

(33) "Certification" means a statement of professional opinion based upon knowledge and belief.

(34) "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements.

(35) "Closed vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(36) "Closure plan" means the plan for closure prepared in accordance with the requirements of Section 3 of 401 KAR 34:070 or Section 3 of 401 KAR 35:070.

(37) "Closure" shall have the meaning specified in KRS 224.01-010.

(38) "Component" means either the tank or ancillary equipment of a tank system.

(39) "Condenser" means a heat transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(40) "Conditionally exempt small quantity generator" means:

(a) A generator who generates no more than 100 kilograms of hazardous waste in a calendar month; or

(b) A generator who generates acutely hazardous waste listed in Sections 2, 3, and 4(5) of 401 KAR 31:040 in a calendar month in quantities no greater than one (1) kilogram. All quantities of that acutely hazardous waste are subject to administrative regulation under 401 KAR Chapters 32 through 39, and the notification and permitting requirements of KRS 224.01-400, 224.40-310, 224.46-510, 224.46-580, and 224.50-130 to 224.50-413.

(41) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

(42) "Connector" means flanged, screwed, welded, or other joined fitting used to connect two (2) pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(43) "Consignee" means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste is sent.

(44) "Constituent" shall have the same meaning as "hazardous waste constituent."

(45) "Container" means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves (for example, tank trucks, tanker trailers, and rail tank cars), and containers placed on or in a transport vehicle.

(46) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 401 KAR 34:245 or 35:245.

(47) "Contaminate" means introduce a substance that would cause:

(a) The concentration of that substance in the groundwater to exceed the maximum contaminant level specified in 401 KAR 30:031, Sections 5 and 6 of 401 KAR 47:030, or Section 8 of 401 KAR 34:060;

(b) An increase in the concentration of that substance in the groundwater where the existing concentration of that substance exceeds the maximum contaminant level specified in 401 KAR 30:031, 401 KAR 47:030, or Section 8 of 401 KAR 34:060; or

1. A significant increase above established background levels, for substances that do not have an established maximum contamination level.

(48) "Contamination" means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

(49) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in the event of a fire, explosion, or release of waste or waste constituents into the environment which has the potential for endangering human health and the environment. Financial planning to identify resources for initiation of such action is a part of contingency plan development.

(50) "Continuous recorder" means a data recording device recording an instantaneous data value at least once every 15 minutes.

(51) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(52) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (for example, a primary condenser on a solvent recovery unit) is not a control device.

(53) "Corrective action management unit" or "CAMU" means an area within a facility that is designated by the cabinet under 401 KAR 34:287, for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34:060 and KRS 224.46-520. A CAMU shall only be used for the management of

remediation wastes pursuant to implementing such corrective action requirements at the facility.

(54) "Cover" means a device or system which is placed on or over a hazardous waste such that the entire hazardous waste surface area is enclosed and sealed to reduce air emissions to the atmosphere. A cover may have openings such as access hatches, sampling ports, and gauge wells that are necessary for operation, inspection, maintenance, or repair of the unit on which the cover is installed provided that each opening is closed and sealed when not in use. Examples of covers include a fixed roof installed on a tank, a floating membrane cover installed on a surface impoundment, a lid installed on a drum, and an enclosure in which an open container is placed during waste treatment.

(55) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(56) "Current closure cost estimates" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34:090 or Section 1(1), (2) and (3) of 401 KAR 35:090.

(57) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(58) "Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 40 C.F.R. 144.62(a), (b), and (c).

(59) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with Section 1(1), (2) and (3) of 401 KAR 34:100 or Section 1(1), (2) and (3) of 401 KAR 35:100.

(60) "Debris" means solid material exceeding a 60mm particle size that is intended for disposal and that is: a manufactured object; plant or animal matter; or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in 401 KAR 37:040, namely lead acid batteries, cadmium batteries, and radioactive lead solids; Process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least seventy five (75) percent of their original volume. A mixture of debris that has not been treated to the standards provided by Section 6 of 401 KAR 37:040 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(61) "Designated facility" means a hazardous waste treatment, storage, or disposal facility which:

(a) Has received a hazardous waste site or facility permit (or a facility with interim status) in accordance with the requirements of 401 KAR Chapter 38;

(b) Has received a permit from a state authorized in accordance with 40 C.F.R. Part 271, and EPA permit (or a facility with interim status) in accordance with 40 C.F.R. Parts 270 and 124; or

1. Is regulated under Section 6(3)(b) of 401 KAR 31:010 or 401 KAR Chapter 36, 40 C.F.R. 261.6(c)(2) or 40 C.F.R. Part 266; and

(d) That has been designated on the manifest by the generator pursuant to Section 1 of 401 KAR 32:020. If a waste is destined to a hazardous waste site or facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept that waste.

(62) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Section 4(1) and (3) of 401 KAR 43:020 and Section 4(1) and (3) of 401 KAR 43:030. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(63) "Destruction or adverse modification" means an alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(64) "Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids;

sludges, solids, or other materials.

(65) "Direct transfer equipment" means any device (including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (for example, transport vehicle) and a boiler or industrial furnace.

(66) "Disposal" shall have the meaning specified in KRS 224.01-010.

(67) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(68) "Distillate receiver" means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(69) "Distillation operation" means an operation, either batch or continuous, separating one (1) or more feed stream(s) into two (2) or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(70) "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(71) "Double block and bleed system" means two (2) block valves connected in series with a bleed valve or line that can vent the line between the two (2) block valves.

(72) "Draft permit" shall have the same meaning as "proposed permit".

(73) "Drip pad" means an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(74) "Effluent Limitations" shall have the same meaning as KRS 224.01-010.

(75) "Elementary neutralization unit" means a device which:

(a) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section 3 of 401 KAR 31:030, or they are listed in 401 KAR 31:040 only for this reason; and

(b) Meets the definition of tank, tank system, container, transport vehicle, or vessel in this section.

(76) "Emergency permit" means a permit issued by the cabinet to temporarily store, treat or dispose of hazardous waste in accordance with the provisions of Section 2 of 401 KAR 38:060, to temporarily manage, process, or dispose of a solid waste in accordance with the provisions of Section 2 of 401 KAR 47:150 or to temporarily store, treat, or dispose of special waste in accordance with the provisions of Section 1 of 401 KAR 45:135.

(77) "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Endangered Species Act, as amended, 16 U.S.C. 1536.

(78) "Engineer" shall have the meaning specified in KRS 322.010. An independent, professional engineer shall be registered in Kentucky pursuant to KRS 322.040 and shall be qualified to engage in waste management engineering practices.

(79) "EPA acknowledgment of consent" means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

(80) "EPA hazardous waste number" means the number assigned by EPA and the cabinet to each hazardous waste listed in 401 KAR 31:040, and to each characteristic identified in 401 KAR 31:030.

(81) "EPA identification number" means the number assigned by EPA or the cabinet to each generator, transporter, or treatment, storage, or disposal facility.

(82) "Ephemeral stream" means a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and which has

a channel bottom that is always above the local water table.

(83) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by 401 KAR 34:275.

(84) "Equivalent method" means any testing or analytical method, approved jointly by the administrator and the secretary under 401 KAR Chapter 31, or methods in 401 KAR Chapters 47 and 48, approved by the secretary of the cabinet.

(85) "Existing" indicates a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning, or processing hazardous waste or for which construction (including the ancillary facilities to burn or to process the hazardous waste) has commenced.

(86) "Existing component" shall have the same meaning as "existing tank system."

(87) "Existing facility" shall have the same meaning as "existing hazardous waste site or facility".

(88) "Existing hazardous waste site or facility" means a hazardous waste facility which was in operation, or for which continuous construction had commenced, on or before November 19, 1980. A facility has commenced construction if:

(a) The owner or operator had obtained the federal, state and local approvals or permits necessary to begin physical construction; and

(b) Either:

1. A continuous on-site, physical construction program has begun; or

2. The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(89) "Existing portion" means that land surface area of an existing hazardous waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(90) "Existing tank system" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(a) A continuous on-site physical construction or installation program has begun; or

(b) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(91) "External floating roof" means a pontoon or double-deck type floating roof that rests on the surface of a hazardous waste being managed in a tank that has no fixed roof.

(92) "Face amount" means the total amount the insurer is obligated to pay under the policy.

(93) "Facility" means:

(a) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one (1) or more landfills, surface impoundments, or combinations of them).

(b) For the purpose of implementing corrective action under Section 12 of 401 KAR 34:060, all contiguous property under the control of the owner or operator seeking a hazardous waste permit. This definition also applies to facilities implementing corrective action under KRS 224.46-520.

(94) "Facility mailing list" means the mailing list for a facility maintained in accordance with Section 7(3)(a)4c of 401 KAR 38:050.

(95) "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the United States Government Printing Office.

(96) "Federal, state, and local approvals or permits necessary

to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, administrative regulations, or ordinances.

(97) "Final closure" of a hazardous waste site or facility means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 401 KAR Chapters 34 and 35 are no longer conducted at the facility unless subject to the provisions in Section 5 of 401 KAR 32:030.

(98) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(99) "Fiscal year" means a twelve (12) month period for accounting and other financial purposes.

(100) "Fixed roof" means a rigid cover that is installed in a stationary position so that it does not move with fluctuations in the level of the hazardous waste placed in a tank.

(101) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(102) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

(103) "Floating roof" means a pontoon-type or double-deck type cover that rests upon and is supported by the hazardous waste being managed in a tank, and is equipped with a closure seal or seals to close the space between the cover edge and the tank wall.

(104) "Flood plain" means areas adjoining inland waters which are inundated by the base flood, unless otherwise specified in 401 KAR 30:031 or 401 KAR 47:030, and includes: 100-year floodplain and floodway.

(105) "Floodway" means the channel of the waterway, stream or river and that portion of the adjoining floodplain which provides for passage of the 100-year flood flow without increasing the floodwater depth across the 100-year floodplain by more than one (1) foot.

(106) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(107) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(108) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(109) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(110) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

(111) "Generator" shall have the meaning specified in KRS 224.01-010.

(112) "Governing body" shall have the same meaning as KRS 224.01-010.

(113) "Groundwater" means the subsurface water occurring in the zone of saturation beneath the water table, and perched water zones below the B-soil horizon, including water circulating through fractures, bedding planes, and solution conduits.

(114) "Groundwater table" means the upper boundary of the saturated zone in which the hydrostatic pressure of the groundwater is equal to the atmospheric pressure.

(115) "Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond that are listed under 401 KAR 37:110.

(116) "Hazardous constituent" shall have the meaning specified in KRS 224.01-010.

(117) "Hazardous debris" means debris that contains a hazardous waste listed in 401 KAR 31:040 or that exhibits a characteristic of hazardous waste identified in 401 KAR 31:030.

(118) "Hazardous waste" shall have the meaning specified in KRS 224.01-010.

(119) "Hazardous waste constituent" means a constituent

which caused the cabinet to list the hazardous waste in 401 KAR 31:040, or a constituent listed in Section 5(3) of 401 KAR 31:030.

(120) "Hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(121) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed. Hazardous waste management units include: aboveground tank; component; existing tank system or existing component; in-ground tank; new tank system or new tank component; on-ground tank; tank system; underground tank; or unfit-for-use tank system.

(122) "Hazardous waste management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than twenty-four (24) hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(123) "Hazardous waste site or facility" means any place at which hazardous waste is treated, stored, or disposed of by landfilling, incineration, or any other method. Hazardous waste site or facility includes: boiler; disposal facility; elementary neutralization unit; incinerator; industrial furnace; hazardous waste transfer facility; injection well; landfill; land treatment facility; miscellaneous unit; pile or waste pile; replacement unit; storage facility; sludge dryer; surface impoundment; tank; thermal treatment facility; totally enclosed treatment facility; treatment facility; or wastewater treatment unit.

(124) "Hazardous waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(125) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene to the present.

(126) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(127) "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(128) "In existence" shall have the same meaning as "existing."

(129) "In gas service" means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(130) "In heavy liquid service" means that the piece of equipment is not in gas service or in vapor service or in light liquid service.

(131) "In light liquid service" means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one (1) or more of the components in the stream is greater than three-tenths (0.3) kilopascals (kPa) at twenty (20) degrees Centigrade, the total concentration of the pure components having a vapor pressure greater than three-tenths (0.3) kPa at twenty (20) degrees Centigrade is equal to or greater than twenty (20) percent by weight, and the fluid is a liquid at operating conditions.

(132) "In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

(133) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(134) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pres-

sure.

(135) "In vapor service" shall have the same meaning as "in gas service".

(136) "In-ground tank" means a device meeting the definition of "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

(137) "Inactive portion" means that portion of a hazardous waste site or facility which was not operated after November 19, 1980.

(138) "Incinerator" means any enclosed device that:

(a) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(b) Meets the definition of infrared incinerator or plasma arc incinerator.

(139) "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device or facility because it may cause corrosion or decay of containment materials, or unsuitable for commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(140) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

(141) "Individual generation site" means the contiguous site at or on which one (1) or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one (1) or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(142) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(a) Cement kilns;

(b) Lime kilns;

(c) Aggregate kilns;

(d) Phosphate kilns;

(e) Coke ovens;

(f) Blast furnaces;

(g) Smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);

(h) Titanium dioxide chloride process oxidation reactors;

(i) Methane reforming furnaces;

(j) Pulping liquor recovery furnaces;

(k) Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(l) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least three (3) percent, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of twenty (20) percent as generated; or

(m) Other devices as the cabinet may, after notice and comment, add to this list on the basis of criteria and Section 5 of 401 KAR 30.080.

(143) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(144) "Injection well" means a well into which fluids are injected to achieve subsurface emplacement.

(145) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained hazardous waste or reagents used to treat the hazardous waste.

(146) "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related

practical experience, is qualified to supervise the installation of a hazardous waste management unit including tank systems.

(147) "Interim status" means the designation of a hazardous waste site or facility which was in existence on November 19, 1980, and has submitted a Part A application under 401 KAR Chapter 38 or under 40 C.F.R. Part 270 and is treated as having a permit until final administrative disposition of the application is made.

(148) "Intermittent stream" means a stream or reach of stream that drains a watershed of one (1) square mile or more but does not flow continuously during the calendar year.

(149) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

(150) "Internal floating roof" means a floating roof that rests or floats on the surface (but not necessarily in complete contact with it) of a hazardous waste being managed in a tank that has a fixed roof.

(151) "Karst terrain" means a type of topography where limestone, dolomite or gypsum is present and is characterized by naturally occurring closed topographic depressions or sinkholes, caves, disrupted surface drainage, and well developed underground solution channels formed by dissolution of these rocks by water moving underground.

(152) "Key personnel" shall have the meaning specified in KRS 224.01-010.

(153) "Lab pack" means any large container equal to or smaller than fifty five (55) gallons that holds many smaller containers of various content tightly secured with packing material.

(154) "Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet (UV), visible, and infrared (IR) regions of the electromagnetic spectrum. Examples of common lamps include, but is not limited to, incandescent, fluorescent, high pressure sodium, mercury vapor, metal halide, high intensity discharge, and neon lamps.

(155) "Land disposal" shall have the meaning specified in KRS 224.01-010.

(156) "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface. These facilities are disposal facilities if the waste will remain after closure.

(157) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(158) "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(159) "Large quantity handler of universal waste" means a universal waste handler who accumulates 5,000 kilograms or more total universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

(160) "Leachate" means any liquid including any suspended components in the liquid, that has percolated through or drained from waste.

(161) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment system or the presence of a release of hazardous waste, hazardous waste constituents or accumulated liquid in the secondary containment system. Such a system shall employ operational controls (daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment system or the presence of a release of hazardous waste constituents or accumulated liquids into the secondary containment system.

(162) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought

under the terms and conditions of an insurance policy.

(163) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(164) "Liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility.

(165) "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank.

(166) "Local government" means the fiscal court of the county, urban county government, or governing body of an incorporated municipality wherein a hazardous waste landfill or other site or facility for the land disposal of hazardous waste is proposed.

(167) "Major modification" means for hazardous waste sites or facilities, a change in ownership where the cabinet determines that other changes in the permit are necessary as a result of the change in ownership or operational control, area occupied, disposal method, or other significant change in the operation of a waste site or facility (Note: Minor modifications are described in Section 3 of 401 KAR 38:040).

(168) "Malfunction" means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

(169) "Manifest" shall have the meaning specified in KRS 224.01-010.

(170) "Manifest document number" means the EPA twelve (12) digit identification number assigned to the generator plus a unique, serially increasing, five (5) digit document number assigned to the manifest by the generator for recordkeeping and reporting purposes.

(171) "Maximum organic vapor pressure" means the equilibrium partial pressure exerted by the hazardous waste contained in a tank determined at the temperature equal to either:

(a) The local maximum monthly average temperature as reported by the National Weather Service when the hazardous waste is stored or treated at ambient temperature; or

(b) The highest calendar month average temperature of the hazardous waste when the hazardous waste is stored at temperatures above the ambient temperature or when the hazardous waste is stored or treated at temperatures below the ambient temperature.

(172) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(173) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of, and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 C.F.R. Part 146, containment building, corrective action management unit, or unit eligible for a research, development, and demonstration permit under Section 6 of 401 KAR 38:060.

(174) "Monitoring" means the act of systematically inspecting and collecting data on operational parameters or on the quality of the air, soil, groundwater, or surface water.

(175) "Monitoring well" means a well used to obtain water samples for water quality and quantity analysis and groundwater levels.

(176) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(177) "Net working capital" means current assets minus current liabilities.

(178) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

(179) "New facility" means any hazardous waste site or facility that commenced construction after November 19, 1980.

(180) "New tank component" shall have the same meaning as "new tank system."

(181) "New tank system" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation commenced after July 14, 1986; however, for purposes of Section 4(7)(b) of 401 KAR 34:190 and Section 4(7)(b) of 401 KAR 35:190, a new tank system is one for which construction commenced after July 14, 1986.

(182) "No detectable organic emissions" means no escape of organics from a device or system to the atmosphere as determined by an instrument reading less than 500 parts per million by volume (ppmv) above the background level at each joint, fitting, and seal when measured in accordance with the requirements of Method 21 in 40 C.F.R. Part 60, Appendix A, and by no visible openings or defects in the device or system such as rips, tears, or gaps.

(183) "Nonsudden accidental occurrence" means an occurrence that takes place over time and involves continuous or repeated exposure.

(184) "Nonwastewaters" means wastes that do not meet the criteria for wastewaters found in the definition for wastewaters.

(185) "Not detected" means at or below the lower method calibration limit (MCL) in SW-846, Method 8290, Table 1.

(186) "Off site" means properties noncontiguous to the site.

(187) "On site" means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

(188) "Onground tank" means a device meeting the definition of tank that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(189) "Open burning" means the combustion of any material or solid waste without:

(a) Control of combustion air to maintain adequate temperature for efficient combustion;

(b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(c) Control of emission of the gaseous combustion products.

(190) "Open ended valve or line" means any valve, except pressure relief valves, having one (1) side of the valve seat in contact with process fluid and one (1) side open to the atmosphere, either directly or through open piping.

(191) "Operational plan" means the approved plan of operations filed with the cabinet which describes the method of operation that the permittee will use in the treatment, storage, or disposal of wastes.

(192) "Operator" means any person responsible for overall operation of an on-site or off-site waste facility, including any private contractor conducting operational activities at a federal facility.

(193) "Other site or facility for the land disposal of hazardous waste" means a disposal facility but shall not include a storage facility or a treatment facility.

(194) "Owner" means any person who owns an on-site or off-site waste facility, or any part of a facility.

(195) "Parent corporation" means a corporation which directly owns at least fifty (50) percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(196) "Part A of the application" or "Part A" means the standard forms or format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:080.

(197) "Part B of the application" or "Part B" means the standard format for applying for a hazardous waste site or facility permit as required in 401 KAR 38:090 to 401 KAR 38:210.

(198) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 401 KAR Chapters 34 and 35 at a facility that con-

tains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(199) "Perennial stream" means a stream or that part of a stream that flows continuously during all of the calendar year as a result of groundwater discharge or surface run-off. The term does not include "intermittent stream" or "ephemeral stream".

(200) "Permit" means the authorization or other control document issued by the cabinet to implement the requirements of the waste management administrative regulations. The term permit includes permit-by-rule, registered permit-by-rule, research, development, and demonstration permit, and emergency permit. However, the term permit does not include draft permit or proposed permit.

(201) "Permit by rule" means authorization allowing certain classes of sites or facilities to manage waste consistent with 401 KAR Chapters 30 to 49, without submission of a registration or permit application to the cabinet. Examples of hazardous waste sites or facilities which are permitted by rule include facilities operating under an interim status permit and facilities identified in Section 1 of 401 KAR 38:060.

(202) "Permittee" means any person holding a valid permit issued by the cabinet to manage, treat, store, or dispose of waste.

(203) "Person" shall have the meaning specified in KRS 224.01-010.

(204) "Personnel" or "facility personnel" means all persons who work at or oversee the operations of a waste facility, and whose actions or failure to act may result in noncompliance with the requirements of the waste management administrative regulations.

(205) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(a) Is a new animal drug under FFDC section 201(w), or

(b) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(c) Is an animal feed under FFDC section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this subsection.

(206) "Pile" or "waste pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

(207) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(208) "Point of compliance" means for hazardous waste site and facilities, groundwater monitoring wells located within 250 feet of the waste boundary as approved by the cabinet.

(209) "Point of waste origination" means as follows:

(a) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as identified in 401 KAR Chapter 31.

(b) When the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

(210) "Point of waste treatment" means the point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste.

(211) "Point source" means any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(212) "Pollutant" shall have the same meaning as KRS 224.01-010.

(213) "Polychlorinated biphenyls" or "PCB" means halogenated organic compounds defined in accordance with 40 C.F.R. 761.2 as of July 1989.

(214) "Postclosure care" means the manner in which a facility shall be maintained when it no longer accepts waste for disposal.

(215) "Postclosure monitoring and maintenance" shall have the meaning specified in KRS 224.01-010.

(216) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of Sections 8 to 11 of 401 KAR 34:070 or Sections 8 to 11 of 401 KAR 35:070.

(217) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(218) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Section 1 of 401 KAR 32:020 which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(219) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(220) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(221) "Property damage" shall have the meaning given by applicable Kentucky statutes. Property damage does not include those liabilities which, consistent with the standard industry practices, are excluded from coverage in liability policies for property damage.

(222) "Proposed permit" means a document prepared by the cabinet indicating the cabinet's tentative decision to issue or deny, modify, revoke or terminate a permit.

(223) "Publicly owned treatment works" or "POTW" shall have the meaning specified in KRS 224.01-010.

(224) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(225) "Qualified groundwater scientist" means a geologist registered in Kentucky who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields to enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

(226) "Receiving country" means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short term storage incidental to transportation).

(227) "Recharge zone" means an area supplying the water which enters an underground drinking water source.

(228) "Reclaimed" means a material that is processed to recover a usable product, or that is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(229) "Recovered material" shall have the meaning specified in KRS 224.01-010.

(230) "Recyclable materials" means hazardous wastes that are recycled.

(231) "Recycled" means a material that is used, reused, or reclaimed.

(232) "Recycling" shall have the meaning specified in KRS 224.01-010.

(233) "Regional integrated waste treatment and disposal demonstration facility" shall have the meaning specified in KRS 224.01-010.

(234) "Regulated unit" means hazardous waste land disposal sites or facilities, or portions of existing hazardous waste land disposal sites or facilities that continued to receive waste after January 26, 1983.

(235) "Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under Section 12 of 401 KAR 34:060 and KRS 224.46-520. For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing KRS 224.46-520 for releases beyond the facility boundary.

(236) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(237) "Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or approved corrective action.

(238) "Representative sample" means a sample of a universe or whole (for example, waste pile, lagoon, or groundwater) which can be expected to exhibit the average properties of the universe or whole.

(239) "Research, development, and demonstration permit" means a permit issued by the cabinet for a hazardous waste treatment facility that utilizes an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 401 KAR Chapters 34 through 36.

(240) "Resource recovery" means the recovery of material or energy from waste.

(241) "Run off" means any rainwater, leachate, or other liquid that drains overland from any part of a facility.

(242) "Run-on" means any rainwater, leachate, or other liquid that drains overland onto any part of a facility.

(243) "Saturated zone" shall have the same meaning as "zone of saturation".

(244) "Schedule of compliance" means a schedule of remedial measures included in a permit or cabinet order, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with KRS Chapter 224 and 401 KAR Chapters 30 to 49.

(245) "Scrap metal" is bits and pieces of metal parts (for example, bars, turnings, rods, sheets, or wire) or metal pieces that may be combined together with bolts or soldering (for example, radiators, scrap automobiles, or railroad boxcars), which when worn or superfluous can be recycled.

(246) "Secretary" shall have the meaning specified in KRS 224.01-010.

(247) "Sensor" means a device that measures a physical quantity or the change in a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(248) "Separator tank" means a device used for separation of two immiscible liquids.

(249) "Sewage system" shall have the meaning specified in KRS 224.01-010.

(250) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the waste facility or activity.

(251) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant or any other waste having similar characteristics and effects.

(252) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet-weight basis.

(253) "Small quantity generator" means a generator who generates more than 100 kilograms but less than 1000 kilograms of

hazardous waste in a calendar month.

(254) "Small quantity handler of universal waste" means a universal waste handler who does not accumulate more than 5,000 kilograms of universal waste (batteries, lamps, pesticides, or thermostats, calculated collectively) at any time.

(255) "Solid waste management unit" shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

(256) "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent (the two (2) being mutually insoluble) to preferentially dissolve and transfer one (1) or more components into the solvent.

(257) "Sorb" means to either adsorb, absorb, or both.

(258) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(259) "Spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(260) "Spill" means any accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

(261) "Start-up" means the setting in operation of a hazardous waste management unit or control device for any purpose.

(262) "State" means any of the fifty (50) states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Northern Mariana Islands or Guam but does not include any foreign country.

(263) "Steam stripping operation" means a distillation operation in which vaporization of a volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(264) "Storage" shall have the meaning specified in KRS 224.01-010.

(265) "Storage facility" means a facility or part of a facility at which hazardous waste is held for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere. A generator who accumulates his own hazardous wastes in an approved manner for less than ninety (90) days for subsequent transport on site or off site is not operating or maintaining a storage facility.

(266) "Storage of hazardous waste" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(267) "Substantial business relationship" means the extent of a business relationship necessary to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the cabinet.

(268) "Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

(269) "Sump" means any pit or reservoir that meets the definition of tank, and those troughs and trenches connected to it, that serves to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile administrative regulations, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(270) "Surface impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(271) "Surge control tank" means a large-sized pipe or storage

reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(272) "Tangible net worth" means the tangible assets that remain after deducting liabilities; these assets would not include intangibles such as goodwill and rights to patents or royalties.

(273) "Tank" means a stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonearthen materials (for example, wood, concrete, steel, or plastic) which provide structural support and which does not meet the definition of any other unit.

(274) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(275) "Termination" shall have the meaning specified in KRS 224.01-010.

(276) "The full amount of the liability coverage to be provided" means the amount of coverage for sudden and nonsudden occurrences required to be provided by the owner or operator, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(277) "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge (see also "incinerator" and "open burning").

(278) "Thermal treatment facility" means a facility or part of a facility which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

(279) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Section 4(3)(b) of 401 KAR 43:020 or Section 4(3)(b) of 401 KAR 43:030.

(280) "Thin film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(281) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which acid is neutralized.

(282) "Transit country" means any foreign country, other than a receiving country, through which a hazardous waste is transported.

(283) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body is a separate transport vehicle.

(284) "Transportation" shall have the meaning specified in KRS 224.01-010.

(285) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(286) "Treatability study" means:

(a) A study in which a hazardous waste is subjected to a treatment process to determine:

1. Whether the waste is amenable to the treatment process;
2. What pretreatment, if any, is required;
3. The optimal process conditions needed to achieve the desired treatment;
4. The efficiency of a treatment process for a specific waste or wastes; or
5. The characteristics and volumes of residuals from a particular treatment process.

(b) For the purpose of 401 KAR 31:010, Section 4(5) and (6), exemptions are liner compatibility, corrosion, and other material

compatibility studies and toxicological and health effects studies.

(c) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(287) "Treatment" shall have the meaning specified in KRS 224.01-010.

(288) "Treatment facility" means a facility or part of a facility using any method, technique or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(289) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(290) "Underground drinking water source" means:

(a) An aquifer supplying drinking water for human consumption; or

(b) An aquifer in which the groundwater contains less than 10,000 mg/l total dissolved solids.

(291) "UIC well" means an underground injection control well as provided in 40 C.F.R. Part 144.

(292) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well, or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

(293) "Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

(294) "Underlying hazardous constituent" means any constituent listed in Section 1 of 401 KAR 37:040, Table Treatment Standards for Hazardous Wastes, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent specific treatment standards.

(295) "Unfit for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(296) "Universal waste" means any of the following hazardous wastes that are subject to the universal waste requirements of 401 KAR Chapter 43:

(a) Batteries as described in Section 2 of 401 KAR 43:010;

(b) Pesticides as described in Section 3 of 401 KAR 43:010;

(c) Thermostats as described in Section 4 of 401 KAR 43:010;

and

(d) Spent lamps as described in Section 5 of 401 KAR 43:010.

(297) "Universal waste handler":

(a) Means:

1. A generator of universal waste; or

2. The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(b) Does not mean:

1. A person who treats (except under the provisions of Sections 4(1) or (3) of 401 KAR 43:020 or Sections 4(1) or (3) of 401 KAR 43:030), disposes of, or recycles universal waste; or

2. A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(298) "Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

(299) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(300) "Unsaturated zone" shall have the same meaning as "Zone of aeration".

(301) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(302) "Used oil" shall have the same meaning as KRS 224.50-545.

(303) "Used or reused" means a material that is either:

(a) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one (1) process used as feedstock in another process). However, a material shall not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(b) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(304) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(305) "Vapor recovery system" means that equipment, device, or apparatus capable of collecting vapors and gases discharged from a storage tank, and a vapor processing system capable of affecting such vapors and gases so as to prevent their emission into the atmosphere.

(306) "Vapor-mounted seal" means a foam-filled primary seal mounted continuously around the circumference of the tank so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the hazardous waste surface, and the floating roof.

(307) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (work losses) or by natural means such as diurnal temperature changes.

(308) "Vessel" means any watercraft used or capable of being used as a means of transportation on the water.

(309) "Volatile organic concentration" or "VO concentration" means the fraction by weight of organic compounds in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement using Method 25D or by knowledge of the waste in accordance with the requirements of Section 4 of 401 KAR 35:281.

(310) "Washout" means the carrying away of waste by waters as a result of flooding.

(311) "Waste" shall have the meaning specified in KRS 224.01-010.

(312) "Waste boundary" means the outermost perimeter of the waste (projected in the horizontal plane) as it would exist at completion of the disposal activity.

(313) "Waste determination" means performing all applicable procedures in accordance with the requirements of Section 4 of 401 KAR 35:281 to determine whether a hazardous waste meets standards specified in 401 KAR Chapter 35. Examples of a waste determination include performing the procedures in accordance with the requirements of Section 4 of 401 KAR 35:281 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; determining the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

(314) "Waste pile" shall have the same meaning as "pile".

(315) "Waste stabilization process" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as de-

termined by Test Method 9095 (Paint Filter Liquids Test) in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, (incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010). A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification."

(316) "Wastewaters" means wastes that contain less than one (1) percent by weight total organic carbon (TOC) and less than one (1) percent by weight total suspended solids (TSS), with the following exceptions:

(a) F001, F002, F003, F004, F005, wastewaters are solvent water mixtures that contain less than one (1) percent by weight TOC or less than one (1) percent by weight total F001, F002, F003, F004, F005 solvent constituents listed in Section 1 of 401 KAR 37:040 in Table Treatment Standards for Hazardous Waste;

(b) K011, K013, K014 wastewaters contain less than five (5) percent by weight TOC and less than one (1) percent by weight TSS, as generated; and

I-K103 and K104 wastewaters contain less than four (4) percent by weight TOC and less than one (1) percent by weight TSS.

(317) "Wastewater treatment unit" means a device that:

(a) Is part of a wastewater treatment facility that is subject to administrative regulation under either section 402 or 307(b) of the CWA;

(b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 401 KAR 31:010, Section 3; or generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 401 KAR 31:010, Section 3; or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section 3 of 401 KAR 31:010; and

I-Meets the definition of tank or tank system in this administrative regulation.

(318) "Water" or "waters of the Commonwealth" shall have the meaning specified in KRS 224.01-010.

(319) "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

(320) "Well" means any shaft or pit dug or bored into the earth, generally of cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(321) "Wetlands" means land that has a predominance of hydric soils and is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

(322) "Zone of aeration" means that region of the soil or rock between the land surface and the nearest saturated zone in which the interstices are occupied partially by air.

(323) "Zone of engineering control" means an area under the control of the owner or operator that upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to waters of the Commonwealth.

(324) "Zone of saturation" means that part of the earth's crust containing groundwater in which all voids, large and small, are filled with liquid.

Section 2. Acronyms and Abbreviations. Unless otherwise specifically indicated by context, acronyms and abbreviations used in 401 KAR Chapter 31 shall have the meaning as identified in Table 1 of this administrative regulation.

Am.	Amended
C	Corrosive waste
CAA	Clean Air Act, as amended
C.F.R.	Code of Federal Regulations
cm	Centimeter
cm ²	Centimeter squared
CO	Carbon monoxide
CO ₂	Carbon dioxide

CWA	Clean Water Act, as amended
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DOT	United States Department of Transportation
DRE	Destruction and removal efficiency
E	Explosive waste
eff.	Effective
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIA	Federal Insurance Administration
FR	Federal Register
H	Acutely hazardous waste
ha	Hectare
HTMR	High temperature metals recovery
HSWA	Hazardous and Solid Waste Amendments of 1994
I	Ignitable waste
KAR	Kentucky Administrative Regulation
kg	Kilogram
KPDES	Kentucky Pollution Discharge Elimination System
KRS	Kentucky Revised Statute
Ky.R.	Administrative Register of Kentucky
l	Liter
LC	Lethal concentration
LD	Lethal dose
ml	Milliliter
mm	Millimeter
N	Normal
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant and Discharge Elimination System
PCB	Polychlorinated biphenyl
pCi/l	Picocuries per liter
PHC	Principal hazardous constituent
Permit	Permitted principal organic hazardous constituent
POHC	Principal organic hazardous constituent
PM	Particulate matter
POHC	Principal organic hazardous constituent
ppm	parts per million
Trial	Trial-burn principal organic hazardous constituent
POHC	Principal organic hazardous constituent
POTW	Publicly owned treatment works
PSD	Prevention of significant deterioration
psi	Pounds per square inch
psig	Pounds per square inch gauge
R	Reactive waste
RCRA	Resource Conservation and Recovery Act, as amended
SDWA	Safe Drinking Water Act, as amended
SEC	Securities and Exchange Commission
SIC	Standard Industrial Classification Code
SPCC	Spill Prevention, Control, and Countermeasures Plan
T	Toxic waste
UIC	Underground Injection Control
UICP	Underground Injection Control Program
U.S.C.	United States Code
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USPS	United States Postal Service]

TERESA J. HILL, Secretary
 APPROVED BY AGENCY: November 13, 2006
 FILED WITH LRC: December 27, 2006 at 4 p.m.
 CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 43:010. General standards for universal waste.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40 C.F.R. 273 Subpart A

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[, 40 C.F.R. Part 273 Subpart A]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation identifies the categories of universal wastes and establishes requirements for managing universal wastes.

Section 1. Scope. The subject matter shall be governed by 40 C.F.R. 273.1, effective July 1, 2005.

Section 2. Applicability ~~for~~- Batteries. The subject matter shall be governed by 40 C.F.R. 273.2, effective July 1, 2005.

Section 3. Applicability ~~for~~- Pesticides. [(1)] The subject matter shall be governed by 40 C.F.R. 273.3, effective July 1, 2005.

Section 4. Applicability ~~for~~- Mercury Containing Equipment. The subject matter shall be governed by 40 C.F.R. 273.4, effective July 1, 2005.

Section 5. Applicability ~~for~~- Lamps. The subject matter shall be governed by 40 C.F.R. 273.5, effective July 1, 2005.

Section 6. Applicability ~~for~~- Household and Conditionally Exempt Small Quantity Generator of Waste. The subject matter shall be governed by 40 C.F.R. 273.8, effective July 1, 2005.

[(1) This administrative regulation establishes requirements for managing the following:

(a) Batteries as described in Section 2 of this administrative regulation;

(b) Pesticides as described in Section 3 of this administrative regulation;

(c) Thermostats as described in Section 4 of this administrative regulation; and

(d) Spent lamps as described in Section 5 of this administrative regulation.

(2) This administrative regulation provides an alternative set of management standards in lieu of regulation under 401 KAR Chapters 30 through 38.

Section 2. Applicability - Batteries. (1)(a) The requirements of this chapter apply to persons managing batteries, except those listed in subsection (2) of this section.

(b) Spent lead-acid batteries which are not managed under 401 KAR 36:070, are subject to management under this chapter.

(2) The requirements of this chapter do not apply to persons managing the following batteries:

(a) Spent lead-acid batteries that are managed under 401 KAR 36:070.

(b) Batteries, that are not yet wastes under 401 KAR Chapter 31, including those that do not meet the criteria for waste generation in subsection (3) of this section.

(c) Batteries, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in 401 KAR 31:030.

(3)(a) A used battery becomes a waste on the date it is discarded (for example, when sent for reclamation).

(b) An unused battery becomes a waste on the date the handler decides to discard it.

~~Section 3. Applicability—Pesticides. (1) The requirements of this chapter apply to persons managing pesticides, meeting the following conditions, except those listed in subsection (2) of this section:~~

~~(a) Recalled pesticides that are:~~

~~1. Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA Section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or~~

~~2. Stocks of a suspended or canceled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.~~

~~(b) Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.~~

~~(2) The requirements of this chapter do not apply to persons managing the following pesticides:~~

~~(a) Recalled pesticides described in subsection (1)(a) of this section, and unused pesticide products described in subsection (1)(b) of this section, that are managed by farmers in compliance with Section 10 of 401 KAR 32:050. (Section 10 of 401 KAR 32:050 addresses pesticides disposed on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple-rinsed in accordance with Section 7(2)(e) of 401 KAR 31:010);~~

~~(b) Pesticides not meeting the conditions set forth in subsection (1) of this section. These pesticides shall be managed in compliance with the hazardous waste regulations in 401 KAR Chapter 30 through 38;~~

~~(c) Pesticides that are not wastes under 401 KAR Chapter 31, including those that do not meet the criteria for waste generation in subsection (3) of this section or those that are not wastes as described in subsection (4) of this section; and~~

~~(d) Pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in 401 KAR 31:040 or if it exhibits one (1) or more of the characteristics identified in 401 KAR 31:030.~~

~~(3)(a) A recalled pesticide described in subsection (1)(a) of this section becomes a waste on the first date on which both of the following conditions apply:~~

~~1. The generator of the recalled pesticide agrees to participate in the recall; and~~

~~2. The person conducting the recall decides to discard the pesticide (for example, burn the pesticide for energy recovery).~~

~~(b) An unused pesticide product described in subsection (1)(b) of this section becomes a waste on the date the generator decides to discard it.~~

~~(4) The following pesticides are not wastes:~~

~~(a) Recalled pesticides described in subsection (1)(a) of this section, provided that the person conducting the recall:~~

~~1. Has not made a decision to discard (for example, burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of "waste" under Section 2 of 401 KAR 31:010; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including the requirements of this chapter. This pesticide remains subject to the requirements of FIFRA; or~~

~~2. Has made a decision to use a management option that, under Section 2 of 401 KAR 31:010, does not cause the pesticide to be a waste (that is, the selected option is use (other than use constituting disposal) or reuse (other than burning for energy recovery), or reclamation). Such a pesticide is not a waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including the requirements of this chapter. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA.~~

~~(b) Unused pesticide products described in subsection (1)(b) of this section, if the generator of the unused pesticide product has not decided to discard (for example, burn for energy recovery) them. These pesticides remain subject to the requirements of FIFRA.~~

~~Section 4. Applicability—Mercury Thermostats. (1) The requirements of this chapter apply to persons managing thermostats, except those listed in subsection (2) of this section.~~

~~(2) The requirements of this chapter do not apply to persons managing the following thermostats:~~

~~(a) Thermostats that are not yet wastes under 401 KAR Chapter 31. Subsection (3) of this section describes when thermostats become wastes.~~

~~(b) Thermostats that are not hazardous waste. A thermostat is a hazardous waste if it exhibits one (1) or more of the characteristics identified in 401 KAR 31:030.~~

~~(3)(a) A used thermostat becomes a waste on the date it is discarded (for example, sent for reclamation).~~

~~(b) An unused thermostat becomes a waste on the date the handler decides to discard it.~~

~~Section 5. Applicability—Spent Lamps. (1) The requirements of this chapter apply to persons managing lamps, except those listed in subsection (2) of this section.~~

~~(2) The requirements of this chapter do not apply to persons managing the following lamps:~~

~~(a) Lamps that are not yet wastes under 401 KAR Chapter 31. Subsection (3) of this section describes when lamps become wastes.~~

~~(b) Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in 401 KAR 31:030.~~

~~(3)(a) A used lamp becomes a waste on the date it is discarded (for example, sent for reclamation).~~

~~(b) An unused lamp becomes a waste on the date the handler decides to discard it.~~

~~Section 6. Applicability—Household and Conditionally Exempt Small Quantity Generator Waste. (1) Persons managing the wastes listed below may, at their option, manage them under the requirements of this chapter:~~

~~(a) Household wastes that are exempt under Section 4(2)(a) of 401 KAR 31:010 and are also of the same type as the universal wastes; or~~

~~(b) Conditionally exempt small quantity generator wastes that are exempt under 401 KAR 31:010 and are also of the same type as the universal wastes.~~

~~(2) Persons who commingle the wastes described in subsection (1)(a) and (b) of this section, together with universal waste regulated under this chapter shall manage the commingled waste under the requirements of this chapter.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 43:020. Standards for small quantity handlers of universal waste.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40 C.F.R. [Part] 273 Subpart B

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510 [40 C.F.R. 273 Subpart B]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes mini-

num standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes standards for small quantity handlers of universal waste. This administrative regulation is equivalent to the corresponding federal regulations, except Section 2 of this administrative regulation has an additional provision to prohibit the treatment of hazardous waste on site under the universal waste requirements and Section 4 of this administrative regulation does not allow a small quantity universal waste handler to treat universal waste lamps except as provided in Section 2 of this administrative regulation.

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 273.10, effective July 1, 2005.

Section 2. Prohibitions. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 273.11, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2)(a) A small quantity generator shall not treat universal waste on-site.

(b) If a small quantity handler of a universal waste wishes to conduct on-site treatment of an accumulated universal waste, the waste shall ~~will~~ no longer be considered a universal waste, and the handler shall be ~~is~~ subject to the requirements ~~[provisions]~~ of 401 KAR Chapters 30 through 39, including the requirement ~~[provision]~~ for on-site treatment by generators, as specified in 401 KAR 32:030, Section 6.

Section 3. Notification. The subject matter shall be governed by 40 C.F.R. 273.12, effective July 1, 2005.

Section 4. Waste Management. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 273.13, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A small quantity handler of universal waste lamps shall not treat (including, breaking, disassembling, or crushing) universal waste lamps, except as provided in Section 2 of this administrative regulation.

Section 5. Labeling and Marking. The subject matter shall be governed by 40 C.F.R. 273.14, effective July 1, 2005.

Section 6. Accumulation Time Limits. The subject matter shall be governed by 40 C.F.R. 273.15, effective July 1, 2005.

Section 7. Employee Training. The subject matter shall be governed by 40 C.F.R. 273.16, effective July 1, 2005.

Section 8. Response to Releases. The subject matter shall be governed by 40 C.F.R. 273.17, effective July 1, 2005.

Section 9. Off-site Shipments. The subject matter shall be governed by 40 C.F.R. 273.18, effective July 1, 2005.

Section 10. Tracking Universal Waste Shipments. The subject matter shall be governed by 40 C.F.R. 273.19, effective July 1, 2005.

Section 11. Exports. ~~[(4)]~~ The subject matter shall be governed by 40 C.F.R. 273.20, effective July 1, 2005. [Applicability. This administrative regulation applies to small quantity handlers of universal waste.

Section 2. Prohibitions. A small quantity handler of universal waste is:

- (1) Prohibited from disposing of universal waste;
- (2) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section 8 of this administrative regulation or by managing specific wastes as provided in Section 4 of this administrative regulation; and
- (3) Prohibited from treating universal waste on-site. If a small quantity handler of a universal waste wishes to conduct on-site treatment of an accumulated universal waste, the waste will no

longer be considered a universal waste and the handler is subject to the provisions of 401 KAR Chapters 30 through 39.

Section 3. Notification. A small quantity handler of universal waste is not required to notify the cabinet of universal waste handling activities.

Section 4. Waste Management. (1) A small quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(a) Batteries. A small quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the battery, and shall lack evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions.

(b) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but shall be immediately closed after removal):

1. Sorting batteries by type;
2. Mixing battery types in one container;
3. Discharging batteries so as to remove the electric charge;
4. Regenerating used batteries;
5. Disassembling batteries or battery packs into individual batteries or cells;
6. Removing batteries from consumer products; or
7. Removing electrolyte from batteries.

(c) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other waste (for example, battery pack materials, discarded consumer products) as a result of the activities listed above, shall determine whether the electrolyte or other waste exhibits a characteristic of hazardous waste identified in 401 KAR 31:030.

1. If the electrolyte or other waste exhibits a characteristic of hazardous waste, it is subject to all applicable requirements of 401 KAR Chapter 30 through 39. The handler is considered the generator of the hazardous electrolyte or other waste and is subject to 401 KAR Chapter 32.

2. If the electrolyte or other waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, and local waste regulations.

(2) Pesticides. A small quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(a) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions; or

(b) A container that does not meet the requirements of paragraph (a) of this subsection, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (a) of this subsection; or

(c) A tank that meets the requirements of 401 KAR 35:190, except for Sections 8 and 11 of 401 KAR 35:190; or

(d) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions.

(3) Thermostats. A small quantity handler of universal waste shall manage universal waste thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(a) A small quantity handler of universal waste shall contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the thermostat, and shall lack evidence of leakage, spillage, or dam-

age that may cause leakage under reasonably foreseeable conditions.

(b) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats provided the handler:

1. Removes the ampules in a manner designed to prevent breakage of the ampules;

2. Removes ampules only over or in a containment device (for example, tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

3. Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of Section 5 of 401-KAR 32:030;

4. Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of Section 5 of 401-KAR 32:030;

5. Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

6. Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

7. Stores removed ampules in closed, nonleaking containers that are in good condition; and

8. Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

(c)1. A small quantity handler of universal waste who removes mercury-containing ampules from thermostats shall determine whether the following exhibit a characteristic of hazardous waste identified in 401-KAR 31:030:

a. Mercury or clean-up residues resulting from spills or leaks; and

b. Other waste generated as a result of the removal of mercury-containing ampules (for example, remaining thermostat units).

2. If the mercury, residues, or other waste exhibits a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of 401-KAR Chapters 30 through 38. The handler is considered the generator of the mercury, residues, or other waste and shall manage it subject to 401-KAR Chapter 32.

3. If the mercury, residues, or other waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local waste regulations.

(4)(a) Lamps. A small quantity handler of universal waste shall manage universal waste lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment.

(b) A small quantity handler of universal waste lamps shall not treat (for example, break, disassemble, or crush) universal waste lamps, except as provided in Section 2 of this administrative regulation.

(c) A small quantity handler of universal waste lamps shall manage a release from universal waste lamps as required by Section 8 of this administrative regulation.

Section 5. Labeling/markings. A small quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified below:

(1) Universal waste batteries (that is, each battery), or a container in which the batteries are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste—Battery(ies);"

(2) A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Section 3(1)(a) of 401-KAR 43:010 are contained shall be labeled or marked clearly with:

(a) The label that was on or accompanied the product as sold or distributed; and

(b) The words "Universal Waste—Pesticide(s);"

(3) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in Section 3(1)(b) of 401-

KAR 43:010 are contained shall be labeled or marked clearly with:

(a)1. The label that was on the product when purchased, if still legible;

2. If using the labels described in paragraph (a)1. of this subsection is not feasible, the appropriate label as required under 49 C.F.R. Subpart C; and

(b) The words "Universal Waste—Pesticide(s);"

(4) Universal waste thermostats (that is, each thermostat), or a container in which the thermostats are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste—Mercury Thermostat(s);"

(5) Universal waste lamps (that is, each lamp), or a container in which the lamps are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste—Lamps."

Section 6. Accumulation Time Limits. (1) A small quantity handler of universal waste may accumulate universal waste for no longer than one (1) year from the date the universal waste is generated, or received from another handler, unless the requirements of subsection (2) of this section are met.

(2) A small quantity handler of universal waste may accumulate universal waste for longer than one (1) year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(3) A small quantity handler of universal waste who accumulates universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(a) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(b) Marking or labeling each individual item of universal waste (for example, each battery, thermostat, or spent lamp) with the date it became a waste or was received;

(c) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(d) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(e) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(f) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

Section 7. Employee Training. A small quantity handler of universal waste shall inform all employees who handle or have responsibility for managing universal waste. The information shall describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

Section 8. Response to Releases. (1) A small quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(2) A small quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of 401-KAR Chapters 30 through 38. The handler is considered the generator of the material resulting from the release, and shall manage it in compliance with 401-KAR Chapter 32.

Section 9. Off-site Shipments. (1) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(2) If a small quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of 401 KAR 43:040 while transporting the universal waste.

(3) If a universal waste being offered for off-site transportation meets the definition of a hazardous material under 49 C.F.R. Subpart C, a small quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Transportation Cabinet regulations under 49 C.F.R. Subpart C.

(4) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(5) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(a) Receive the waste back when notified that the shipment has been rejected; or

(b) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(6) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(a) Send the shipment back to the originating handler; or

(b) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(7) If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the cabinet of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The cabinet will provide instructions for managing the hazardous waste.

(8) If a small quantity handler of universal waste receives a shipment of nonhazardous, nonuniversal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state and local waste regulations.

Section 10. Tracking Universal Waste Shipments. A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

Section 11. Exports. A small quantity handler of universal waste who sends universal waste to a foreign destination shall:

(1) Comply with the requirements applicable to a primary exporter in Section 4, Section 6(1)(a) through (d), Section 6 (1)(f), Section 6(2), and Section 8 of 401 KAR 32:050;

(2) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent; and

(3) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 43:030. Standards for large quantity handlers of universal waste.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40

C.F.R. [Part] 273 Subpart C

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[~~40 C.F.R. 273 Subpart C~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes standards for large quantity handlers of universal waste. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 273 Subpart C except for Section 2 [~~Section 2(3)~~] of this administrative regulation, which adds language to clarify that wastes treated as hazardous may be treated on site in accordance with applicable state hazardous waste administrative regulations; and Section 4 of this administrative regulation does not allow a small quantity universal waste handler to treat universal waste lamps except as provided in Section 2 of this administrative regulation. [and ~~Section 3(2)(e) of this regulation, which requires submittal of the county name, latitude, and longitude for entry into the state database.~~] This administrative regulation includes provisions for spent lamps not addressed by federal regulations. [In response to U.S. EPA recommendations, Kentucky has included spent lamps as a universal waste to provide reduced standards for management of this high volume, low toxicity hazardous waste.]

Section 1. Definition. [Definitions: (1)] "Environmental Protection Agency" or "EPA" means, as referenced in 40 C.F.R. 273.32(a)(3);

(a) The federal Environmental Protection Agency [in the federal reference of 40 C.F.R. 273.32(a)(3); or

(b) in all other instances referenced in this administrative regulation, the Kentucky Department for Environmental Protection except when used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA region", "EPA Acknowledgment of Consent", "EPA Test Methods", and "EPA publications".]

Section 2. Applicability. The subject matter shall be governed by 40 C.F.R. 273.30, effective July 1, 2005.

Section 3. Prohibitions. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 273.31 [subject to the modifications, exceptions, and additions that are set forth in this administrative regulation], effective July 1, 2005.

(2)(a) A large quantity generator shall not treat universal waste on-site.

(b) If a large quantity handler of a universal waste wishes to conduct on-site treatment of an accumulated universal waste, the waste shall [will] no longer be considered a universal waste, and the handler shall be [is] subject to the requirements [provisions] of 401 KAR Chapters 30 through 39, including the requirement [provision] for on-site treatment by generators, as specified in 401 KAR 32:030, Section 6.

Section 4. Notification. The subject matter shall be governed by 40 C.F.R. 273.32, effective July 1, 2005.

Section 5. Waste Management. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 273.33, effective July 1, 2005[with the modifications, exceptions, and additions that are set forth in this administrative regulation].

(2) A large quantity handler of universal waste lamps shall not treat (including[~~ing~~] breaking, disassembling, or crushing) universal waste lamps, except as provided in Section 2 of this administrative regulation.

Section 6. Labeling and Marking. The subject matter shall be governed by 40 C.F.R. 273.34, effective July 1, 2005.

Section 7. Accumulation Time Limits. The subject matter shall be governed by 40 C.F.R. 273.35, effective July 1, 2005.

Section 8. Employee Training. The subject matter shall be governed by 40 C.F.R. 273.36, effective July 1, 2005.

Section 9. Response to Releases. ~~[(1)]~~ The subject matter shall be governed by 40 C.F.R. 273.37, effective July 1, 2005.

Section 10. Off-site Shipments. The subject matter shall be governed by 40 C.F.R. 273.38, effective July 1, 2005.

Section 11. Tracking Universal Waste Shipments. The subject matter shall be governed by 40 C.F.R. 273.39, effective July 1, 2005.

Section 12. Exports. The subject matter shall be governed by 40 C.F.R. 273.40, effective July 1, 2005. [Applicability. This administrative regulation applies to large quantity handlers of universal waste.

Section 2. Prohibitions. A large quantity handler of universal waste is:

- (1) Prohibited from disposing of universal waste;
- (2) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section 8 of this administrative regulation or by managing specific wastes as provided in Section 4 of this administrative regulation; and
- (3) Prohibited from treating universal waste on-site. If a large quantity handler of a universal waste wishes to conduct on-site treatment of an accumulated universal waste, the waste will no longer be considered a universal waste and the handler is subject to the provisions of 401 KAR Chapters 32 through 39.

Section 3. Notification. (1)(a) Except as provided in subsection (1)(b) and (c) of this section, a large quantity handler of universal waste shall send a written notification of universal waste management to the cabinet, in accordance with Section 3 of 401 KAR 32:010, and received an EPA Identification Number, before accumulating 5,000 kilograms of universal waste.

(b) A large quantity handler of universal waste who has already notified the cabinet of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this section.

(c) A large quantity handler of universal waste who manages recalled universal waste pesticides as described in Section 3(1)(a) of 401 KAR 43:010 and who has sent notification to EPA as required by 40 C.F.R. Part 165 is not required to notify the cabinet for those recalled universal waste pesticides under this section.

(2) This notification shall include:

- (a) The universal waste handler's name and mailing address;
- (b) The name and business telephone number of the person at the universal waste handler's site who shall be contacted regarding universal waste management activities;
- (c) The address or physical location of the universal waste management activities, including the county name and latitude/longitude;
- (d) A list of all of the types of universal waste managed by the handler (for example, batteries, lamps, pesticides, thermostats);
- (e) A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time and the types of universal waste (for example, batteries, lamps, pesticides, thermostats) the handler is accumulating above this quantity.

Section 4. Waste Management. (1) A large quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(a) A large quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the battery, and shall lack evidence of leakage, spillage, or damage that may cause

leakage under reasonably foreseeable conditions.

(b) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but shall be immediately closed after removal):

1. Sorting batteries by type;
2. Mixing battery types in one container;
3. Discharging batteries so as to remove the electric charge;
4. Regenerating used batteries;
5. Disassembling batteries or battery packs into individual batteries or cells;
6. Removing batteries from consumer products; or
7. Removing electrolyte from batteries.

(c) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other waste (for example, battery pack materials, discarded consumer products) as a result of the activities listed above, shall determine whether the electrolyte or other waste exhibit a characteristic of hazardous waste identified in 401 KAR Chapter 31.

1. If the electrolyte or other waste exhibit a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of 401 KAR Chapter 30 through 38. The handler is considered the generator of the hazardous electrolyte or other waste and is subject to 401 KAR Chapter 32.

2. If the electrolyte or other waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local waste regulations.

(2) A large quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(a) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions; or

(b) A container that does not meet the requirements of paragraph (a) of this subsection, provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (a) of this subsection; or

(c) A tank that meets the requirements of 401 KAR 35:190, except for Section 8(3) and Section 11 of 401 KAR 35:190; or

(d) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions.

(3) A large quantity handler of universal waste shall manage universal waste thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(a) A large quantity handler of universal waste shall contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the thermostat, and shall lack evidence of leakage, spillage, or damage that may cause leakage under reasonably foreseeable conditions.

(b) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats provided the handler:

1. Removes the ampules in a manner designed to prevent breakage of the ampules;

2. Removes ampules only over or in a containment device (for example, tray or pan sufficient to contain any mercury released from an ampule in case of breakage);

3. Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of Section 5 of 401 KAR 32:030;

4. Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of Section 5 of 401 KAR

32:030;

5. Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

6. Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

7. Stores removed ampules in closed, nonleaking containers that are in good condition; and

8. Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

(e)1. A large quantity handler of universal waste who removes mercury-containing ampules from thermostats shall determine whether the following exhibit a characteristic of hazardous waste identified in 401 KAR 31:030:

a. Mercury or clean-up residues resulting from spills or leaks;

or

b. Other waste generated as a result of the removal of mercury-containing ampules (for example, remaining thermostat units).

2. If the mercury, residues, or other waste exhibits a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of 401 KAR Chapters 30 through 38. The handler is considered the generator of the mercury, residues, or other waste and is subject to 401 KAR Chapter 32.

3. If the mercury, residues, or other waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state and local waste regulations.

(4)(a) A large quantity handler of universal waste shall manage universal waste lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment.

(b) A large quantity handler of universal waste lamps shall not treat (for example, break, disassemble, or crush) universal waste lamps, except as provided in Section 2 of this administrative regulation.

(c) A large quantity handler of universal waste lamps shall manage a release from universal waste lamps as required by Section 8 of this administrative regulation.

Section 5. Labeling and Marking. A large quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified below:

(1) Universal waste batteries (for example, each battery), or a container or tank in which the batteries are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste - Batteries;"

(2) A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Section 3(1)(a) of 401 KAR 43:010 are contained shall be labeled or marked clearly with:

(a) The label that was on or accompanied the product as sold or distributed; and

(b) The words "Universal Waste - Pesticide(s);"

(3) A container, tank, transport vehicle, or vessel in which unused pesticide products as described in Section 3(1)(b) of 401 KAR 43:010 are contained shall be labeled or marked clearly with:

(a)1. The label that was on the product when purchased, if still legible;

2. If using the labels described in paragraph (a)1. of this subsection is not feasible, the appropriate label as required under 49 C.F.R. Subpart C; and

(b) The words "Universal Waste - Pesticide(s);"

(4) Universal waste thermostats (that is, each thermostat), or a container or tank in which the thermostats are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste - Mercury Thermostat(s);"

(5) Universal waste lamps (that is, each lamp), or a container in which the lamps are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste - Lamps."

Section 6. Accumulation Time Limits. (1) A large quantity handler of universal waste may accumulate universal waste for no

longer than one (1) year from the date the universal waste is generated, or received from another handler, unless the requirements of subsection (2) of this section are met.

(2) A large quantity handler of universal waste may accumulate universal waste for longer than one (1) year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(3) A large quantity handler of universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(a) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(b) Marking or labeling the individual item of universal waste (for example, each battery) with the date it became a waste or was received;

(c) Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;

(d) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(e) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(f) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

Section 7. Employee Training. A large quantity handler of universal waste shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

Section 8. Response to Releases. (1) A large quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(2) A large quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of 401 KAR Chapters 32 through 39. The handler is considered the generator of the material resulting from the release, and is subject to 401 KAR Chapter 32.

Section 9. Off-site Shipments. (1) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(2) If a large quantity handler of universal waste self-transport universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of 401 KAR 43:040 while transporting the universal waste.

(3) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 C.F.R. Subpart C, a large quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Transportation Cabinet's regulations under 49 C.F.R. Subpart C;

(4) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(5) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

- (a) Receive the waste back when notified that the shipment has been rejected; or
- (b) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(6) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

- (a) Send the shipment back to the originating handler, or
- (b) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(7) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the cabinet of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The cabinet will provide instructions for managing the hazardous waste.

(8) If a large quantity handler of universal waste receives a shipment of nonhazardous, nonuniversal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state and local waste regulations.

~~Section 10. Tracking Universal Waste Shipments. (1) A large quantity handler of universal waste shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:~~

~~(a) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;~~

~~(b) The quantity of each type of universal waste received (for example, batteries, lamps, pesticides, thermostats); and~~

~~(c) The date of receipt of the shipment of universal waste.~~

~~(2) A large quantity handler of universal waste shall keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent shall include the following information:~~

~~(a) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;~~

~~(b) The quantity of each type of universal waste sent (for example, batteries, lamps pesticides, thermostats); and~~

~~(c) The date the shipment of universal waste left the facility.~~

~~(3)(a) A large quantity handler of universal waste shall retain the records described in subsection (1) of this section for at least three years from the date of receipt of a shipment of universal waste.~~

~~(b) A large quantity handler of universal waste shall retain the records described in subsection (2) of this section for at least three years from the date a shipment of universal waste left the facility.~~

~~Section 11. Exports. A large quantity handler of universal waste who sends universal waste to a foreign destination shall:~~

~~(1) Comply with the requirements applicable to a primary exporter in Section 4, Section 6(1)(a) through (d), Section 6(1)(f), Section 6(2), and Section 8 of 401 KAR 32:050;~~

~~(2) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent; and~~

~~(3) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.]~~

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

401 KAR 43:040. Standards for universal waste transporters.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40 C.F.R. [Part] 273 Subpart D

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[, 40 C.F.R. 273 Subpart D]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes standards for transporters of universal waste. [This administrative regulation is equivalent to federal standards established in 40 C.F.R. 273 Subpart D.] [This administrative regulation establishes provisions for transportation of universal waste, which includes spent lamps not addressed by federal regulations. In response to U.S. EPA recommendations, Kentucky has included spent lamps as a universal waste to provide reduced standards for management of this high volume, low toxicity, hazardous waste.]

Section 1. Definition. [(1)] "Department of Transportation" means the Kentucky Transportation Cabinet.

Section 2. Applicability. The subject matter shall be governed by 40 C.F.R. 273.50, effective July 1, 2005.

Section 3. Prohibitions. The subject matter shall be governed by 40 C.F.R. 273.51, effective July 1, 2005.

Section 4. Waste Management. The subject matter shall be governed by 40 C.F.R. 273.52, effective July 1, 2005.

Section 5. Storage Time Limits. The subject matter shall be governed by 40 C.F.R. 273.53, effective July 1, 2005.

Section 6. Response to Releases. The subject matter shall be governed by 40 C.F.R. 273.54, effective July 1, 2005.

Section 7. Off-site Shipments. The subject matter shall be governed by 40 C.F.R. 273.55, effective July 1, 2005.

Section 8. Exports. The subject matter shall be governed by 40 C.F.R. 273.56, effective July 1, 2005. [Applicability. This administrative regulation applies to universal waste transporters.

Section 2. Prohibitions. A universal waste transporter is:

(1) Prohibited from disposing of universal waste; and

(2) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section 5 of this administrative regulation.

Section 3. Waste Management. (1) A universal waste transporter shall comply with all applicable Kentucky Transportation Cabinet's regulations for transport of any universal waste that meets the definition of hazardous material in 49 C.F.R. Subchapter C. For purposes of the Transportation Cabinet's regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of 401 KAR Chapter 33. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Transportation Cabinet's regulations.

(2) Some universal waste materials are regulated by the Transportation Cabinet as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 C.F.R.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Subchapter C. As universal waste shipments do not require a manifest under 401 KAR Chapter 33, they shall not be described by the DOT proper shipping name "hazardous waste, (I) or (S), n.o.s.", nor shall the hazardous material's proper shipping name be modified by adding the word "waste".

Section 4. Storage Time Limits. (1) A universal waste transporter shall only store the universal waste at a universal waste transfer facility for ten days or less.

(2) If a universal waste transporter stores universal waste for more than ten (10) days, the transporter becomes a universal waste handler and shall comply with the applicable requirements of 401 KAR 43:020 and 43:030 while storing the universal waste.

Section 5. Response to Releases. (1) A universal waste transporter shall immediately contain all releases of universal wastes and other residues from universal wastes.

(2) A universal waste transporter shall determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of 401 KAR Chapters 30 through 39. If the waste is determined to be a hazardous waste, the transporter is subject to 401 KAR Chapter 33.

Section 6. Off-site Shipments. (1) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(2) If the universal waste being shipped off-site meets the Transportation Cabinet's definition of hazardous materials under 49 C.F.R. Subchapter C, the shipment shall be properly described on a shipping paper in accordance with the applicable regulations under 49 C.F.R. Subchapter C.

Section 7. Exports. A universal waste transporter transporting a shipment of universal waste to a foreign destination may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter shall ensure that:

(1) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and

(2) The shipment is delivered to the facility designated by the person initiating the shipment.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 43:050. Standards for destination facilities.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40 C.F.R. [Part] 273 Subpart E

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[40 C.F.R. 273 Subpart E]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the **Environmental and Public Protection** Cabinet to promulgate **administrative** regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) **requires** [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes standards for destination facilities of universal wastes.

Section 1. Applicability. (1) The subject matter shall be gov-

erned by 40 C.F.R. 273.60, effective July 1, 2005.

(2) The citation to Section 3010 of RCRA in the federal regulation referenced in subsection (1) [4] of this section shall be replaced with KRS 224.01-400.

Section 2. Off-site Shipments. The subject matter shall be governed by 40 C.F.R. 273.61, effective July 1, 2005.

Section 3. Tracking Universal Waste Shipments. The subject matter shall be governed by 40 C.F.R. 273.62, effective July 1, 2005. [The owner or operator of a destination facility is subject to all applicable requirements of 401 KAR Chapters 34 through 39, and the notification requirements of KRS 224.01-400.

(2) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled shall comply with Section 6(3)(b) of 401 KAR 31:010.

Section 2. Off-site Shipments. (1) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than another destination facility or a foreign destination.

(2) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he shall contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility shall:

(a) Send the shipment back to the original shipper; or

(b) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(3) If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility shall immediately notify the cabinet of the illegal shipment, and provide the name, address, and phone number of the shipper. The cabinet will provide instructions for managing the hazardous waste.

(4) If the owner or operator of a destination facility receives a shipment of nonhazardous, nonuniversal waste, the owner or operator shall manage the waste in any way that is in compliance with applicable federal or state waste regulations.

Section 3. Tracking Universal Waste Shipments. (1) The owner or operator of a destination facility shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:

(a) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

(b) The quantity of each type of universal waste received (for example, batteries, pesticides, thermostats, lamps);

(c) The date of receipt of the shipment of universal waste.

(2) The owner or operator of a destination facility shall retain the records described in subsection (1) of this section for at least three (3) years from the date of receipt of a shipment of universal waste.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 43:060. Import requirements.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 40 C.F.R. [Part] 273.70 [273 Subpart F]

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[, 40 C.F.R., 273 Subpart F]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes requirements for [applies to] persons managing universal waste [that is] imported from a foreign country.

Section 1. Imports. The subject matter shall be governed by 40 C.F.R. 273.70, effective July 1, 2005. [Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this chapter, immediately after the waste enters the United States, as indicated below:

(1) A universal waste transporter is subject to the universal waste transporter requirements of 401 KAR 43:040.

(2) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of 401 KAR 43:020 or 43:030, as applicable.

(3) An owner or operator of a destination facility is subject to the destination facility requirements of 401 KAR 43:050.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department for Environmental Protection
 Division of Waste Management
 (As Amended at ARRS, May 8, 2007)

401 KAR 43:070. Petitions to include other wastes under 401 KAR Chapter 43.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46[, 401 KAR Chapter 31], 40 C.F.R. [Part] 273 Subpart G

STATUTORY AUTHORITY: KRS 224.10-100 [224.10], 224.46-510[, 40 C.F.R., 273 Subpart G]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-510(1) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations which establish standards for generators of hazardous waste by amount of waste generated. KRS 224.46-510(3) requires [provides] that the cabinet [shall] establish classes or categories of hazardous waste reflecting the relative degree of hazard. [This chapter establishes minimum standards for persons who generate, handle, transport or receive universal waste.] This administrative regulation establishes procedures for the inclusion of other wastes as universal wastes as established in [under] this chapter. [This administrative regulation establishes procedures for petitioning to include other wastes as universal wastes under this chapter.]

Section 1. General. The subject matter shall be governed by 40 C.F.R. 273.80, effective July 1, 2005.

Section 2. Factors for Petitions to Include Other Wastes under

401 KAR Chapter 43. (1) The subject matter shall be governed by 40 C.F.R. 273.81, effective July 1, 2005.

(2) The citation to Subtitle C of RCRA in the federal regulation referenced in subsection (1) [4] of this section shall be replaced with 401 KAR Chapters 31 through 39. [Section 1. General. (1) Any person seeking to add a hazardous waste or a category of hazardous waste to this chapter may petition for a regulatory amendment under this administrative regulation and Sections 1 and 7 of 401 KAR 31:060.

(2) To be successful, the petitioner shall demonstrate to the satisfaction of the cabinet that regulation under the universal waste regulations of this chapter is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Section 1(2) of 401 KAR 31:060. The petition shall also address as many of the factors listed in Section 2 of this administrative regulation as are appropriate for the waste or waste category addressed in the petition.

(3) The cabinet will evaluate petitions using the factors listed in Section 2 of this administrative regulation. The cabinet will grant or deny a petition using the factors listed in Section 2 of this administrative regulation. The decision will be based on the weight of evidence showing that regulation under this chapter is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

Section 2. Factors for Petitions to Include Other Wastes under 401 KAR Chapter 43. (1) The waste or category of waste, as generated by a wide variety of generators, is listed in 401 KAR 31:040, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in 401 KAR 31:030. When a characteristic waste is added to the universal waste regulations of this chapter by using a generic name to identify the waste category (for example, batteries), the definition of universal waste will be amended to include only the hazardous waste portion of the waste category (for example, hazardous waste batteries). Thus, only the portion of the waste stream that does exhibit one or more characteristics (that is, hazardous waste) is subject to the universal waste regulations of this chapter;

(2) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, government organizations, as well as large industrial facilities);

(3) The waste or category of waste is generated by a large number of generators (for example, more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

(4) Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;

(5) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (for example, waste management requirements appropriate to be added to Section 4 of 401 KAR 43:020, Section 4 of 401 KAR 43:030, and Section 3 of 401 KAR 43:040; or applicable Transportation Cabinet requirements) would be protective of human health and the environment during accumulation and transport;

(6) Regulation of the waste or category of waste under this chapter will increase the likelihood that the waste will be diverted from nonhazardous waste management systems (for example, the municipal waste stream, nonhazardous industrial or commercial waste stream, municipal sewer or storm water systems) to recycling, treatment, or disposal in compliance with 401 KAR Chapters 31 through 39.

(7) Regulation of the waste or category of waste under this chapter will improve implementation of and compliance with the hazardous waste regulatory program; and

(8) Such other factors as may be appropriate.]

VOLUME 33, NUMBER 12 – JUNE 1, 2007

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: December 27, 2006 at 4 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May8, 2007)

401 KAR 44:005. Definitions for [related to] 401 KAR Chapter 44.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.43, 224.46, 224.50, 40 C.F.R. 279.1 [Part 279 Subpart A]

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.50-545

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(30) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. [To implement the provisions of KRS 224.50-545.] This administrative regulation defines essential terms that are used in **401 KAR Chapter 44 and supplements the federal definitions** [this chapter. This administrative regulation is equivalent to federal standards] established in 40 C.F.R. 279.1. Definitions contained in KRS Chapter 224 have been referenced to the appropriate statutory citation. [The prior federal definition for "marketer" has been added for clarification.]

Section 1. Definitions. Except as provided in this section, the definitions established in 40 C.F.R. 279.1, effective July 1, 2005, shall apply. [The subject matter shall be governed by 40 C.F.R. 279.1, effective July 1, 2005 with the modifications, exceptions, and additions set forth in this section.]

(1) "Aboveground tank" means a tank used to store or process used oil that is not an underground storage tank as defined in **KRS 224.60-100(1)** [401 KAR 42:005].

(2) "Administrator", "agency", "assistant administrator", "regional administrator", "director", or "regional director" means cabinet as defined in KRS 224.01-010(9).

(3) "Disposal" is defined by KRS 224.01-010(10).

(4) "Environmental Protection Agency" or "EPA" means the Kentucky Department for Environmental Protection except if [when] used in the phrases "EPA hazardous waste number", "EPA identification number", "EPA Region", "EPA Acknowledgment of Consent", "EPA Test Methods", "EPA form", and "EPA publications".

(5) "Federal Register" means the "Kentucky Administrative Register" as described in KRS 13A.050.

(6) "Generator" is defined by KRS 224.01-010(13).

(7) "Hazardous waste" is defined by KRS 224.01-010(31)(b).

(8) "Manifest" is defined by KRS 224.01-010(37).

(9) "Marketers" means persons who market used oil fuel.

(10) "Person" is defined by KRS 224.01-010(17).

(10) "Recycle" is defined by KRS 224.50-545(2)(b).

(11) "Re-refined [Re-refined] oil" is defined by KRS 224.50-545(2)(c).

(12) "Solid waste" is [means "waste" as] defined in KRS 224.01-010(31)(a).

(13) "Storage" is defined by KRS 224.01-010(28).

(14) "Transfer facility" is defined by KRS 224.01-010(48).

(15) "Transportation" is defined by KRS 224.01-010(29).

(16) "Treatment" is defined by KRS 224.01-010(30).

(17) "Used oil" is defined by KRS 224.50-545(2)(a).

Section 2. Substitution of Federal References. (1) The following federal parts and subparts, which are cited by federal regulations referenced in 401 KAR Chapter 44, shall be substituted with the state administrative regulations listed below.

Federal Regulation	State Regulation
40 C.F.R. Part 260	401 KAR Chapter 30

40 C.F.R. 260 Subpart A	401 KAR 30:020
40 C.F.R. 260 Subpart B	401 KAR 30:005, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, 401 KAR 44:005 and 401 KAR 30:020
40 C.F.R. 260 Subpart C	401 KAR 30:035
40 C.F.R. Part 261	401 KAR Chapter 31
40 C.F.R. 261 Subpart A	401 KAR 31:010
40 C.F.R. 261 Subpart B	401 KAR 31:020
40 C.F.R. 261 Subpart C	401 KAR 31:030
40 C.F.R. 261 Subpart D	401 KAR 31:040
40 C.F.R. Part 262	401 KAR Chapter 32
40 C.F.R. 262 Subpart A	401 KAR 32:010
40 C.F.R. 262 Subpart B	401 KAR 32:020
40 C.F.R. 262 Subpart C	401 KAR 32:030
40 C.F.R. 262 Subpart D	401 KAR 32:040
40 C.F.R. 262 Subpart E	401 KAR 32:050 Sections 1-9
40 C.F.R. 262 Subpart F	401 KAR 32:050 Section 10
40 C.F.R. 262 Subpart G	401 KAR 32:060
40 C.F.R. 262 Subpart H	401 KAR 32:065
40 C.F.R. Part 263	401 KAR Chapter 33
40 C.F.R. 263 Subpart A	401 KAR 33:010
40 C.F.R. 263 Subpart B	401 KAR 33:020
40 C.F.R. 263 Subpart C	401 KAR 33:030
40 C.F.R. Part 264	401 KAR Chapter 34
40 C.F.R. 264 Subpart A	401 KAR 34:010
40 C.F.R. 264 Subpart B	401 KAR 34:020
40 C.F.R. 264 Subpart C	401 KAR 34:030
40 C.F.R. 264 Subpart D	401 KAR 34:040
40 C.F.R. 264 Subpart E	401 KAR 34:050
40 C.F.R. 264 Subpart F	401 KAR 34:060
40 C.F.R. 264 Subpart G	401 KAR 34:070
40 C.F.R. 264 Subpart H	401 KAR 34:080, 401 KAR 34:090, 401 KAR 34:100, 401 KAR 34:110, 401 KAR 34:120, 401 KAR 34:130
40 C.F.R. 264 Subpart I	401 KAR 34:180
40 C.F.R. 264 Subpart J	401 KAR 34:190
40 C.F.R. 264 Subpart K	401 KAR 34:200
40 C.F.R. 264 Subpart L	401 KAR 34:210
40 C.F.R. 264 Subpart M	401 KAR 34:220
40 C.F.R. 264 Subpart N	401 KAR 34:230
40 C.F.R. 264 Subpart O	401 KAR 34:240
40 C.F.R. 264 Subpart S	401 KAR 34:287
40 C.F.R. 264 Subpart W	401 KAR 34:285
40 C.F.R. 264 Subpart X	401 KAR 34:250
40 C.F.R. 264 Subpart AA	401 KAR 34:275
40 C.F.R. 264 Subpart BB	401 KAR 34:280
40 C.F.R. 264 Subpart CC	401 KAR 34:281
40 C.F.R. 264 Subpart DD	401 KAR 34:245
40 C.F.R. 264 Subpart EE	401 KAR 34:370
40 C.F.R. Part 265	401 KAR Chapter 35
40 C.F.R. 265 Subpart A	401 KAR 35:010
40 C.F.R. 265 Subpart B	401 KAR 35:020
40 C.F.R. 265 Subpart C	401 KAR 35:030
40 C.F.R. 265 Subpart D	401 KAR 35:040
40 C.F.R. 265 Subpart E	401 KAR 35:050
40 C.F.R. 265 Subpart F	401 KAR 35:060
40 C.F.R. 265 Subpart G	401 KAR 35:070
40 C.F.R. 265 Subpart H	401 KAR 35:080, 401 KAR 35:090, 401 KAR 35:100, 401 KAR 35:110, 401 KAR 35:120, 401 KAR 35:130
40 C.F.R. 265 Subpart I	401 KAR 35:180
40 C.F.R. 265 Subpart J	401 KAR 35:190
40 C.F.R. 265 Subpart K	401 KAR 35:200
40 C.F.R. 265 Subpart L	401 KAR 35:210
40 C.F.R. 265 Subpart M	401 KAR 35:220
40 C.F.R. 265 Subpart N	401 KAR 35:230

VOLUME 33, NUMBER 12 – JUNE 1, 2007

40 C.F.R. 265 Subpart O	401 KAR 35:240
40 C.F.R. 265 Subpart P	401 KAR 35:250
40 C.F.R. 265 Subpart Q	401 KAR 35:260
40 C.F.R. 265 Subpart R	401 KAR 35:270
40 C.F.R. 265 Subpart W	401 KAR 35:285
40 C.F.R. 265 Subpart AA	401 KAR 35:275
40 C.F.R. 265 Subpart BB	401 KAR 35:280
40 C.F.R. 265 Subpart CC	401 KAR 35:281
40 C.F.R. 265 Subpart DD	401 KAR 35:245
40 C.F.R. 265 Subpart EE	401 KAR 35:350
40 C.F.R. Part 266	401 KAR Chapter 36
40 C.F.R. 266 Subpart C	401 KAR 36:030
40 C.F.R. 266 Subpart F	401 KAR 36:060
40 C.F.R. 266 Subpart G	401 KAR 36:070
40 C.F.R. 266 Subpart H	401 KAR 36:020
40 C.F.R. 266 Subpart M	401 KAR 36:080
40 C.F.R. 266 Subpart N	401 KAR 36:090
40 C.F.R. Part 268	401 KAR Chapter 37
40 C.F.R. 268 Subpart A	401 KAR 37:010
40 C.F.R. 268 Subpart B	401 KAR 37:020
40 C.F.R. 268 Subpart C	401 KAR 37:030
40 C.F.R. 268 Subpart D	401 KAR 37:040
40 C.F.R. 268 Subpart E	401 KAR 37:050
40 C.F.R. Part 270	401 KAR Chapter 38
40 C.F.R. 270 Subpart A	401 KAR 38:010
40 C.F.R. 270 Subpart B	401 KAR 38:070, 401 KAR 38:080, 401 KAR 38:090, 401 KAR 38:150 through 401 KAR 38:310
40 C.F.R. 270 Subpart C	401 KAR 38:030
40 C.F.R. 270 Subpart D	401 KAR 38:040, Sections 1 through 4, 7
40 C.F.R. 270 Subpart E	401 KAR 38:040, Sections 5 and 6
40 C.F.R. 270 Subpart F	401 KAR 38:060
40 C.F.R. 270 Subpart G	401 KAR 38:020
40 C.F.R. 270 Subpart H	401 KAR 38:320
40 C.F.R. 270 Subpart I	401 KAR 38:330
40 C.F.R. 270 Subpart J	401 KAR 38:340
40 C.F.R. Part 124	401 KAR 38:050
40 C.F.R. Part 273	401 KAR Chapter 43
40 C.F.R. 273 Subpart A	401 KAR 43:010
40 C.F.R. 273 Subpart B	401 KAR 43:020
40 C.F.R. 273 Subpart C	401 KAR 43:030
40 C.F.R. 273 Subpart D	401 KAR 43:040
40 C.F.R. 273 Subpart E	401 KAR 43:050
40 C.F.R. 273 Subpart F	401 KAR 43:060 [43:070]
40 C.F.R. 273 Subpart G	401 KAR 43:070 [43:080]
40 C.F.R. Part 279	401 KAR Chapter 44
40 C.F.R. 279 Subpart A	401 KAR 44:005
40 C.F.R. 279 Subpart B	401 KAR 44:010
40 C.F.R. 279 Subpart C	401 KAR 44:020
40 C.F.R. 279 Subpart D	401 KAR 44:030
40 C.F.R. 279 Subpart E	401 KAR 44:040
40 C.F.R. 279 Subpart F	401 KAR 44:050
40 C.F.R. 279 Subpart G	401 KAR 44:060
40 C.F.R. 279 Subpart H	401 KAR 44:070
40 C.F.R. 279 Subpart I	401 KAR 44:080

(2) The requirements of the following federal regulations, which are referenced in 401 KAR [44] Chapter 44, shall include the modifications, exceptions, and additions that are specific to the Commonwealth of Kentucky set forth in the following state administrative regulations referenced in the table below.

Federal Regulation	State Regulation
40 C.F.R. 260.10	401 KAR 30:005, 401 KAR 31:005, 401 KAR 32:005, 401 KAR 33:005, 401 KAR 34:005, 401 KAR 35:005, 401 KAR 36:005, 401 KAR 37:005, 401 KAR 38:005, 401 KAR 43:005, 401 KAR 44:005 and 401 KAR 30:020
40 C.F.R. 261.21	401 KAR 31:030, Section 2

40 C.F.R. 264.1082	401 KAR 34:281, Section 2
40 C.F.R. 266.205	401 KAR 36:080, Section 6
40 C.F.R. 270.61	401 KAR 38:060, Section 2
40 C.F.R. 279.73	401 KAR 44:070, Section 4

(3) The following federal regulations, which are cited by the federal regulations referenced in 401 KAR Chapter 44, shall be replaced with the state administrative regulations as identified in the table below.

Federal Regulation	State Regulation
40 C.F.R. Part 60 Appendix A	401 KAR 59:020
[40 C.F.R. Part 124]	401 KAR 38:050
40 C.F.R. Part 257	401 KAR Chapter 47
40 C.F.R. Part 258	401 KAR Chapter 48
40 C.F.R. 264.140	401 KAR 34:080, Section 2
40 C.F.R. 264.141	401 KAR 34:080, Section 1 [3]
40 C.F.R. 264.142	401 KAR 34:090, Section 1
40 C.F.R. 264.143	401 KAR 34:090, Sections 2 through 12
40 C.F.R. 264.144	401 KAR 34:100, Section 1
40 C.F.R. 264.145	401 KAR 34:100, Sections 2 through 12
40 C.F.R. 264.146	401 KAR 34:110
40 C.F.R. 264.147	401 KAR 34:120
40 C.F.R. 264.148	401 KAR 34:130
40 C.F.R. 265.140	401 KAR 35:080, Section 2
40 C.F.R. 265.141	401 KAR 35:080, Section 1
40 C.F.R. 265.142	401 KAR 35:090, Section 1
40 C.F.R. 265.143	401 KAR 35:090, Sections 2 through 11
40 C.F.R. 265.144	401 KAR 35:100, Section 1
40 C.F.R. 265.145	401 KAR 35:100, Sections 2 through 11
40 C.F.R. 265.146	401 KAR 35:110
40 C.F.R. 265.147	401 KAR 35:120
40 C.F.R. 265.148	401 KAR 35:130
40 C.F.R. 266 Appendix I Table I-D	401 KAR 36:025, Section 1(2)(a)
40 C.F.R. 266 Appendix I Table I-E	401 KAR 36:025, Section 1(2)(b)
40 C.F.R. 270.51	401 KAR 38:040, Section 6
40 C.F.R. Part 280	401 KAR Chapter 42

[Section 1. Definitions. Unless otherwise specifically defined in KRS Chapter 224 or otherwise specifically indicated by context, terms in 401 KAR Chapter 44 shall have the meanings given in this Section:

(1) "Aboveground tank" means a tank used to store or process used oil that is not an underground storage tank as defined in 401 KAR 42:005.

(2) "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

(3) "Do-it-yourself used oil collection center" means any site or facility that accepts or aggregates and stores used oil collected only from household do-it-yourselfers.

(4) "Existing tank" means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of the authorized used oil program for the state in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either

(a) A continuous on-site installation program has begun; or

(b) The owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial loss for installation of the tank to be completed within a reasonable time.

(5) "Household 'do-it-yourself' used oil" means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

(6) "Household 'do-it-yourselfer' used oil generator" means an individual who generates household "do-it-yourselfer" used oil.

(7) "Marketers" means persons who market used oil fuel.

(8) "New tank" means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

(9) "Petroleum refining facility" means an establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes.

(10) "Processing" means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

(11) "Recycle" shall have the same meaning as KRS 224.50-545.

(12) "Re-refined oil" shall have the same meaning as KRS 224.50-545.

(13) "Re-refining distillation bottoms" means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

(14) "Tank" means any stationary device, designed to contain an accumulation of used oil and that is constructed of primarily nonearthen materials, (for example, wood, concrete, steel, plastic) which provides structural support.

(15) "Used oil" shall have the same meaning as KRS 224.50-545.

(16) "Used oil aggregation point" means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(17) "Used oil burner" means a facility where used oil not meeting the specification requirements in Section 2 of 401 KAR 44:010 is burned for energy recovery in devices identified in Section 2 of 401 KAR 44:060.

(18) "Used oil collection center" means any site or facility that is registered, licensed, permitted, or recognized by a state, county, or municipal government to manage used oil and accepts or aggregates and stores used oil collected from used oil generators regulated under 401 KAR 44:030 who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of Section 5 of 44:020. Used oil collection centers may also accept used oil from household do-it-yourselfers.

(19) "Used oil fuel marketer" means any person who conducts either of the following activities:

(a) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(b) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010.

(20) "Used oil generator" means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(21) "Used oil processor or re-refiner" means a facility that processes used oil.

(22) "Used oil transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of used oil are held for more than twenty-four (24) hours and not longer than thirty-five (35) days during the normal course of transportation or prior to an activity performed pursuant to Section 1(2)(b) of 401 KAR 44:020. Transfer facilities that store used oil for more than 35 days are subject to regulation under 401 KAR 44:050.

(23) "Used oil transporter" means any person who transports used oil, any person who collects used oil from more than one (1)

generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (for example, settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

Section 2. Acronyms and Abbreviations. Unless otherwise specifically indicated by context, acronyms and abbreviations used in 401 KAR Chapter 44 shall have the meaning as identified in Table 1 of this administrative regulation.

CFC	Chlorofluorocarbon
C.F.R.	Code of Federal Regulations
DEP	Kentucky Department for Environmental Protection
DIY	Do-it-yourselfer
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
KAR	Kentucky Administrative Regulation
KRS	Kentucky Revised Statute
PCB	Polychlorinated biphenyl
ppm	parts per million
SPCC	Spill Prevention, Control, and Countermeasures Plan

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:010. Applicability.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart B

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545 [40 C.F.R. 279 Subpart B]

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly. This administrative regulation establishes materials that are subject to regulations used oil under 40 KAR Chapter 44.** [This chapter implements the provisions of KRS 224.46-530 and 224.50-545. This administrative regulation identifies materials that are subject to regulation as used oil under this chapter.]

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 279.10, effective July 1, 2005.

Section 2. Used Oil Specifications. The subject matter shall be governed by 40 C.F.R. 279.11, effective July 1, 2005.

Section 3. Prohibitions. The subject matter shall be governed by 40 C.F.R. 279.12, effective July 1, 2005.

[Section 1. Applicability. This administrative regulation identifies those materials which are subject to regulation as used oil under this chapter. This administrative regulation also identifies some materials that are not subject to regulation as used oil under this chapter, and indicates whether these materials may be subject

to regulation as hazardous waste under 401 KAR Chapters 31 through 39.

(1) Used oil. The cabinet presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in Section 2 of this administrative regulation, the requirements of this chapter apply to used oil, and to materials identified in this section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in 401 KAR 31:030.

(2) Mixtures of used oil and hazardous waste.

(a) Listed hazardous waste.

1. Mixtures of used oil and hazardous waste that is listed in 401 KAR 31:040 are subject to regulation as hazardous waste under 401 KAR Chapters 31 through 39, rather than as used oil under this chapter.

2. Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 401 KAR 31:040. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, which is incorporated in 40 C.F.R. 260.11, which is adopted in Section 3 of 401 KAR 30:010, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 401 KAR 31:170).

a. The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in Section 5(3) of 401 KAR 44:020, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.

b. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) Characteristic hazardous waste. Mixtures of used oil and hazardous waste where the hazardous waste solely exhibits one or more of the hazardous waste characteristics identified in 401 KAR 31:030 and mixtures of used oil and hazardous waste where the hazardous waste is listed in 401 KAR 31:040 solely because it exhibits one (1) or more of the characteristics of hazardous waste identified in 401 KAR 31:030 are subject to:

1. Except as provided in paragraph (b)3 of this subsection, regulation as hazardous waste under 401 KAR Chapters 31 through 39 rather than as used oil under this chapter, if the resultant mixture exhibits any characteristics of hazardous waste identified in 401 KAR 31:030; or

2. Mixtures of used oil and hazardous waste where the hazardous waste solely exhibits one (1) or more of the hazardous waste characteristics identified in 401 KAR 31:030, and mixtures of used oil and hazardous waste that are listed in 401 KAR 31:040 solely because it exhibits one or more of the characteristics of hazardous waste identified in 401 KAR 31:030, shall comply with the regulatory requirements applicable to hazardous waste mixtures as set forth in 401 KAR Chapters 31 through 39.

3. Regulation as used oil under this chapter, if the mixture is of used oil and a waste that is hazardous solely because it exhibits the characteristic of ignitability (for example, ignitable only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under Section 2 of 401 KAR 31:030.

(c) Conditionally exempt small quantity generator hazardous waste. Mixtures of used oil and conditionally exempt small quantity generator hazardous waste regulated under Section 5 of 401 KAR 31:040 are subject to regulation as used oil under this chapter.

(3) Materials containing or otherwise contaminated with used oil.

(a) Except as provided in paragraph (b) of this subsection, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

1. Are not used oil and thus not subject to this chapter, and

2. If applicable are subject to the hazardous waste regulations of 401 KAR Chapters 31 through 39.

(b) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under this chapter.

(c) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this chapter.

(4) Mixtures of used oil with products.

(a) Except as provided in paragraph (b) of this subsection, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under this chapter.

(b) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this chapter once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of 401 KAR 44:020.

(5) Materials derived from used oil.

(a) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (for example, re-refined lubricants) are:

1. Not used oil and thus are not subject to this chapter, and

2. Not wastes and are thus not subject to the hazardous waste regulations of 401 KAR Chapters 31 through 39 as provided in Section 3(3)(b)1. of 401 KAR 31:040.

(b) Materials produced from used oil that are burned for energy recovery (for example, used oil fuels) are subject to regulation as used oil under this chapter.

(c) Except as provided in paragraph (d) of this subsection, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

1. Not used oil and thus are not subject to this chapter; and

2. Are wastes and thus are subject to the hazardous waste regulations of 401 KAR Chapters 31 through 39 if the materials are listed or identified as hazardous waste.

(d) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this chapter.

(6) Wastewater. Wastewater, the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil are not subject to the requirements of this chapter. For purposes of this subsection, "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(7) Used oil introduced into crude oil pipelines or a petroleum refining facility.

(a) Used oil mixed with crude oil or natural gas liquids (for example, in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this chapter. The used oil is subject to the requirements of this chapter prior to the mixing of used oil with crude oil or natural gas liquids.

(b) Mixtures of used oil and crude oil or natural gas liquids containing less than one percent used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this chapter.

(c) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this chapter provided that the used oil constitutes less than one percent of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this chapter.

(d) Except as provided in paragraph (c) of this subsection, used oil that is introduced into a petroleum refining facility process

after crude distillation or catalytic cracking is exempt from the requirements of this chapter only if the used oil meets the specifications of Section 2 of this administrative regulation. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this chapter.

(e) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this chapter. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (for example, by pouring collected used oil into the waste water treatment system).

(f) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this chapter.

(g) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to this chapter until it is transported ashore.

(h) Used oil containing PCBs. In addition to the requirements of this chapter, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements found at 40 C.F.R. 761.20(e).

Section 2. Used Oil Specifications. Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this chapter unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specification and the person making that showing complies with Sections 3, 4 and 5(2) of 401 KAR 44:070, the used oil is no longer subject to this chapter.

Table 1 Used Oil Not exceeding Any Specification Level Is Not Subject to This Chapter When Burned for Energy Recovery ¹	
Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium	10 ppm maximum.
Lead	100 ppm maximum.
Flash point	100 °F minimum.
Total halogens	4,000 ppm maximum ²

Note: Applicable standards for the burning of used oil containing PCBs are imposed by 40 C.F.R. 761.20(e).

FOOTNOTE: ¹The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see Section 1(2) of this administrative regulation).

FOOTNOTE: ²Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under Section 1(2)(a) of this administrative regulation. Such used oil is subject to 401 KAR 36:020 rather than this chapter when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

Section 3. Prohibitions. (1) Surface impoundment prohibition. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under 401 KAR Chapters 34 or 35.

(2) Use as a dust suppressant. The use of used oil as a dust suppressant is prohibited.

(3) Burning in particular units. Off-specification used oil fuel shall be burned for energy recovery in only the following devices:

(a) Industrial furnaces;

(b) Boilers that are identified as follows:

1. Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

2. Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

3. Used oil-fired space heaters provided that the burner meets

the provisions of Section 4 of 401 KAR 44:020.

(c) Hazardous waste incinerators subject to regulation under 401 KAR 34:240 and 35:240.

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 44:020. Standards for used oil generators.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart C

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[~~40 C.F.R. 279 Subpart C~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for generators of used oil. This administrative regulation is equivalent to the corresponding federal regulations, except there are additional requirements [provisions] necessary as established in KRS 224.01-400 and 224.01-405 [due to statutory requirements] for release notification and corrective action for releases [located in KRS 224.01-400 and 224.01-405].

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 279.20(a) and (b)(1) through (4), effective July 1, 2005.

Section 2. Hazardous Waste Mixing. The subject matter shall be governed by 40 C.F.R. 279.21, effective July 1, 2005.

Section 3. Used Oil Storage. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 279.22, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) In addition to the requirements of 40 C.F.R. 279.22, the requirements of KRS 224.01-400(11) and (12) and 224.01-405 shall be met.

(3) The citation to 40 C.F.R. Part 280 in the federal regulation referenced in subsection (1) of this section shall be replaced with 401 KAR Chapter 42.

Section 4. On-site Burning in Space Heaters. The subject matter shall be governed by 40 C.F.R. 279.23, effective July 1, 2005.

Section 5. Off-site Shipments. The subject matter shall be governed by 40 C.F.R. 279.24, effective July 1, 2005.

[Section 1. Applicability. (1) General. Except as provided in paragraphs (a) through (d) of this subsection, this administrative regulation applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(a) Household "do-it-yourselfer" used oil generators. Household "do-it-yourselfer" used oil generators are not subject to regulation under this chapter.

(b) Vessels. Vessels at sea or at port are not subject to this administrative regulation. For purposes of this administrative regulation, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported

ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are cogenerators of the used oil and are both responsible for managing the waste in compliance with this administrative regulation once the used oil is transported ashore. The cogenerators shall decide among them which party will fulfill the requirements of this administrative regulation.

(e) Diesel fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to this chapter once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this administrative regulation.

(d) Farmers. Farmers who generate an average of twenty-five (25) gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to the requirements of this chapter.

(2) Other applicable provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this chapter as indicated in paragraphs (a) through (d) of this subsection:

(a) Generators who transport used oil, except under the self-transport provisions of Section 5 of this administrative regulation, shall also comply with 401 KAR 44:040.

(b)1. Except as provided in paragraph (b)2 of this subsection, generators who process or re-refine used oil shall also comply with 401 KAR 44:050.

2. Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel.

a. Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

b. Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act or other applicable federal or state regulations governing the management or discharge of wastewaters;

c. Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

d. Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to Section 1(3) of 401 KAR 44:010; or

e. Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to Section 4 of this administrative regulation.

(c) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of Section 4 of this administrative regulation, shall also comply with 401 KAR 44:060.

(d) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010 shall also comply with 401 KAR 44:070.

Section 2. Hazardous Waste Mixing. (1) Mixtures of used oil and hazardous waste shall be managed in accordance with Section 1(2) of 401 KAR 44:010.

(2) The rebuttable presumption for used oil of Section 1(2)(a)2 of 401 KAR 44:010 applies to used oil managed by generators. Under the rebuttable presumption for used oil of Section 1(2)(a)2 of 401 KAR 44:010, used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus shall be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils or fluids and certain used oils removed from refrigeration units, as provided in Section 1(2)(a)2a of 401 KAR 44:010.

Section 3. Used Oil Storage. Used oil generators are subject to all applicable spill prevention, control and countermeasures (40 C.F.R. Part 112) in addition to the requirements of this administra-

tive regulation. Used oil generators are also subject to the underground storage tank (401 KAR Chapter 42) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this administrative regulation.

(1) Storage units. Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under 401 KAR Chapter 34 or 35.

(2) Condition of units. Containers and aboveground tanks used to store used oil at generator facilities shall be:

(a) In good condition (no severe rusting, apparent structural defects or deterioration); and

(b) Not leaking (no visible leaks);

(3) Labels.

(a) Containers and aboveground tanks used to store used oil at generator facilities shall be labeled or marked clearly with the words "Used Oil."

(b) Fill pipes used to transfer used oil into underground storage tanks at generator facilities shall be labeled or marked clearly with the words "Used Oil."

(4) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of 401 KAR 42:060 which has occurred after the effective date of this administrative regulation, a generator shall perform the following cleanup steps:

(a) Stop the release;

(b) Contain the released used oil;

(c) Clean up and manage properly the released used oil and other materials;

(d) If necessary to prevent future releases, repair or replace any leaking used oil storage containers or tanks prior to returning them to service;

(e) Notify the cabinet if required by KRS 224.01-400(11) and (12); and

(f) Perform corrective action in compliance with KRS 224.01-405.

Section 4. On-site Burning in Space Heaters. Generators may burn used oil in used oil-fired space heaters provided that:

(1) The heater burns only used oil that the owner or operator generates on-site or used oil received from household do-it-yourself used oil generators;

(2) The heater is designed to have a maximum capacity of not more than 0.5 million BTU per hour; and

(3) The combustion gases from the heater are vented to the ambient air.

Section 5. Off-site Shipments. Except as provided in subsections (1) through (3) of this section, generators shall ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

(1) Self-transportation of small amounts to approved collection centers. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

(a) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(b) The generator transports no more than fifty-five (55) gallons of used oil at any time; and

(c) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state, county or municipal government to manage used oil.

(2) Self-transportation of small amounts to aggregation points owned by the generator. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

(a) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(b) The generator transports no more than fifty-five (55) gallons of used oil at any time; and

(c) The generator transports the used oil to an aggregation point that is owned or operated by the same generator.

(3) Tolling arrangements. Used oil generators may arrange for

used oil to be transported by a transporter without an EPA identification number if the used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor or re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling arrangement") shall indicate:

- (a) The type of used oil and the frequency of shipments;
- (b) That the vehicle used to transport the used oil to the processing or re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor or re-refiner; and
- (c) That reclaimed oil will be returned to the generator.]

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: January 3, 2007 at 2 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:030. Standards for used oil collection centers and aggregation points.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. Part 279 Subpart D
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for generators of used oil collection centers and aggregation points. This administrative regulation is equivalent to corresponding federal regulations except for a requirement [provision] to send a notification to the Recycling and Local Assistance Branch of the Division of Waste Management.

Section 1. Do It Yourself Used Oil Collection Centers. The subject matter shall be governed by 40 C.F.R. 279.30, effective July 1, 2005.

Section 2. Used Oil Collection Centers. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.31, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Owners or operators of each [all] used oil collection center [centers] shall register initially with [notify] the Recycling and Local Assistance Branch of the Division of Waste Management at [(502) 564-6716 or] 14 Reilly Road, Frankfort, Kentucky 40601 by submitting a completed "Used Oil Collection Center Registration and Annual Reporting Form", DEP-5034. Subsequent annual reports shall be submitted to the branch on the "Used Oil Collection Center Registration and Annual Reporting Form", DEP-5034, prior to January 31 annually.

Section 3. Used Oil Aggregation Points Owned by the Generator. The subject matter shall be governed by 40 C.F.R. 279.32, effective July 1, 2005.

Section 4. Incorporation by Reference.

(1) "Used Oil Collection Center Registration and Annual Reporting Form", DEP-5034, April 2007, is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Waste

Management, 14 Reilly Road, Frankfort, Kentucky 40601, Monday through Friday, 8:00 a.m. to 4:30 p.m.

(3) This document may also be obtained from the Division of Waste Management's Web page located at www.waste.ky.gov.

~~[Section 1. Do it yourself Used Oil Collection Centers. (1) Applicability. This section applies to owners or operators of all do-it-yourself (DIY) used oil collection centers. A DIY used oil collection center is any site or facility that accepts or aggregates and stores used oil collected only from household do-it-yourselfers.~~

~~(2) DIY used oil collection center requirements. Owners or operators of all DIY used oil collection centers shall comply with the generator standards in 401 KAR 44:020.~~

~~Section 2. Used Oil Collection Centers. (1) Applicability. This section applies to owners or operators of used oil collection centers. A used oil collection center is any site or facility that accepts or aggregates and stores used oil collected from used oil generators regulated under 401 KAR 44:020 who bring used oil to the collection center in shipments of no more than fifty-five (55) gallons under the provisions of Section 5(1) of 401 KAR 44:020. Used oil collection centers may also accept used oil from household do-it-yourselfers.~~

~~(2) Used oil collection center requirements. Owners or operators of all used oil collection centers shall:~~

~~(a) Comply with the generator standards in 401 KAR 44:020; and~~

~~(b) Notify the Resource Conservation and Local Assistance Branch of the Division of Waste Management at (502) 564-6716 or 14 Reilly Road, Frankfort, Kentucky 40601.~~

~~Section 3. Used Oil Aggregation Points Owned by the Generator. (1) Applicability. This section applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of Section 5(2) of 401 KAR 44:020. Used oil aggregation points may also accept used oil from household do-it-yourselfers.~~

~~(2) Used oil aggregation point requirements. Owners or operators of all used oil aggregation points shall comply with the generator standards in 401 KAR 44:020.]~~

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: January 3, 2007 at 2 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:040. Standards for used oil transporter and transfer facilities.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart E
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[~~40 C.F.R. 279 Subpart E~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for used oil transporters and transfer facilities. This administrative regulation is equivalent to

federal standards established in 40 C.F.R. 279 Subpart E except for additional provisions necessary due to statutory requirements for release notification and corrective action for releases as established [leaked] in KRS 224.01-400 and 224.01-405 and submission of Division of Waste Management forms. Section 1 of this administrative regulation, which precludes the use of used oil as a dust suppressant in accordance with KRS 224.46-530; Section 3(2)(a) of this administrative regulation, which provides for use of a state form that is equivalent to the federal form; Sections 5(4) and 7(4) of this administrative regulation, which require record retention for at least two (2) years in accordance with KRS 224.50-545(13)(a); and Section 6(8)(e) and (f) of this administrative regulation, which have been added to reference statutory requirements for notification and corrective action.]

Section 1. Applicability. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.40, except 40 C.F.R. 279.40(d)(5), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Transporters who dispose of used oil shall also comply with 401 KAR 44:080.

Section 2. Restrictions on Transporters Who Are Not Also Processors or Re-refiners [Re-finers]. The subject matter shall be governed by 40 C.F.R. 279.41, effective July 1, 2005.

Section 3. Notification. (1) Except as provided in subsection (2) of this section, [Notifications, (1)] the subject matter shall be governed by 40 C.F.R. 279.42, except 40 C.F.R. 279.42(b)(1), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A used oil transporter who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of its used oil activity by submitting a completed DEP Form 7053, "Notification of Hazardous Waste Transportation Activities", incorporated by reference in 401 KAR 33:010, Section 4.

Section 4. Used Oil Transportation. (1) The subject matter shall be governed by 40 C.F.R. 279.43, effective July 1, 2005.

(2) In addition to the requirements of 40 C.F.R. 279.43, the requirements of 601 KAR 1:025, KRS 224.01-400(11) and (12), and KRS 224.01-405 shall be met.

Section 5. Rebuttable Presumption for Used Oil. [(1)] The subject matter shall be governed by 40 C.F.R. 279.44(a) through (c), effective July 1, 2005.

Section 6. Used Oil Storage at Transfer Facilities. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.45, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Upon detection of a release of used oil to the environment, not subject to the requirements of 401 KAR 42:060, a generator shall notify the cabinet if required by KRS 224.01-400(11) and (12), and perform corrective action in compliance with KRS 224.01-405.

Section 7. Tracking. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.46(a) through (c), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) The records described in this section shall be maintained for at least two (2) years.

Section 8. Management of Residues. The subject matter shall be governed by 40 C.F.R. 279.47, effective July 1, 2005.

[Section 1. Applicability. (1) General. Except as provided in paragraphs (a) through (d) of this subsection, this administrative regulation applies to all used oil transporters. Used oil transporters are persons who transport used oil, persons who collect used oil

from more than one generator and transport the collected oil, and owners and operators of used oil transfer facilities.

(a) This administrative regulation does not apply to on-site transportation.

(b) This administrative regulation does not apply to generators who transport shipments of used oil totaling 55 gallons or less from the generator to a used oil collection center as specified in Section 5(1) of 401 KAR 44:020.

(c) This administrative regulation does not apply to generators who transport shipments of used oil totaling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in Section 5(2) of 401 KAR 44:020.

(d) This administrative regulation does not apply to transportation of used oil from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor or re-refiner, or burner subject to the requirements of this chapter. Except as provided in paragraphs (a) through (c) of this subsection, this administrative regulation does, however, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(2) Imports and exports. Transporters who import used oil from abroad or export used oil outside of the Commonwealth of Kentucky are subject to the requirements of this administrative regulation from the time the used oil enters and until the time it exits the United States.

(3) Trucks used to transport hazardous waste. Unless trucks previously used to transport hazardous waste are emptied as described in Section 7 of 401 KAR 31:010 prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under the provisions of Section 1(2) of 401 KAR 44:010, the hazardous waste and used oil mixture is determined not to be hazardous waste.

(4) Other applicable provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of this chapter as indicated in paragraphs (a) through (e) of this subsection:

(a) Transporters who generate used oil shall also comply with 401 KAR 44:020;

(b) Transporters who process or re-refine used oil, except as provided in Section 2 of this administrative regulation, shall also comply with 401 KAR 44:050;

(c) Transporters who burn off-specification used oil for energy recovery shall also comply with 401 KAR 44:060;

(d) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010 shall also comply with 401 KAR 44:070; and

(e) Transporters who dispose of used oil shall also comply with 401 KAR 44:080.

Section 2. Restrictions on Transporters Who Are Not Also Processors or Re-refiners. (1) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in subsection (2) of this section, used oil transporters shall not process used oil unless they also comply with the requirements for processors or re-refiners in 401 KAR 44:050.

(2) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (for example, settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the processor or re-refiner requirements in 401 KAR 44:050.

(3) Transporters of used oil that is removed from oil-bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor or re-refiner requirements in 401 KAR 44:050.

Section 3. Notification. (1) Identification numbers. Used oil transporters who have not previously complied with the notification requirements of Section 2 of 401 KAR 33:010 shall comply with these requirements and obtain an EPA identification number.

(2) Mechanics of notification. A used oil transporter who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of its used oil activity by submitting either:

(a) A completed DEP Form 7053, Notification of Hazardous Waste Transportation Activities; or

(b) A letter requesting an EPA identification number. The letter shall include the following information:

1. Transporter company name;
2. Owner of the transporter company;
3. Mailing address for the transporter;
4. Name and telephone number for the transporter point of contact;
5. Type of transport activity (that is, transport only, transport and transfer facility, transfer facility only);
6. Location of all transfer facilities at which used oil is stored; and
7. Name and telephone number for a contact at each transfer facility.

Section 4. Used Oil Transportation. (1) Deliveries. A used oil transporter shall deliver all used oil received to:

(a) Another used oil transporter, provided that the transporter has obtained an EPA identification number;

(b) A used oil processing or re-refining facility who has obtained an EPA identification number;

(c) An off-specification used oil burner facility who has obtained an EPA identification number; or

(d) An on-specification used oil burner facility.

(2) DOT Requirements. Used oil transporters shall comply with all applicable requirements under the Transportation Cabinet's regulations in 601 KAR 1:025. Persons transporting used oil that meets the definition of a hazardous material in 601 KAR 1:025 shall comply with all applicable requirements in 601 KAR 1:025.

(3) Used oil discharges.

(a) In the event of a discharge of used oil during transportation, the transporter shall take appropriate immediate action to protect human health and the environment (for example, notify local authorities, dike the discharge area).

(b) If a discharge of used oil occurs during transportation and the cabinet determines that immediate removal of the used oil is necessary to protect human health or the environment, the cabinet may authorize the removal of the used oil by transporters who do not have EPA identification numbers.

(c) A transporter who has discharged used oil shall:

1. Notify the cabinet, as required by KRS 224.01-400(11) and (12); and
2. Report to the cabinet in writing if required by KRS 224.01-400(12).

(d) A transporter shall clean up any used oil discharged that occurs during transportation or take such action as required by KRS 224.01-405 so that the used oil discharge no longer presents a hazard to human health or the environment.

Section 5. Rebuttable Presumption for Used Oil. (1) To ensure that used oil is not a hazardous waste under the rebuttable presumption of Section 1(2)(a)2. of 401 KAR 44:010, the used oil transporter shall determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(2) The transporter shall make this determination by:

- (a) Testing the used oil; or
- (b) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(3) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 401 KAR 31:040. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW 846, Edition

III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 401 KAR 31:170).

(a) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in Section 5(3) of 401 KAR 44:020, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.

(b) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(4) Record retention. Records of analyses conducted or information used to comply with subsections (1) through (3) of this section shall be maintained by the transporter for at least two (2) years.

Section 6. Used Oil Storage at Transfer Facilities. Used oil transporters are subject to all applicable spill prevention, control and countermeasures (40 C.F.R. Part 112) in addition to the requirements of this administrative regulation. Used oil transporters are also subject to the underground storage tank (401 KAR Chapter 42) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this administrative regulation.

(1) Applicability. This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than twenty-four (24) hours during the normal course of transportation and not longer than thirty-five (35) days. Transfer facilities that store used oil for more than thirty-five (35) days are subject to regulation under 401 KAR 44:050.

(2) Storage units. Owners or operators of used oil transfer facilities shall not store used oil in units other than tanks, containers, or units subject to regulation under 401 KAR Chapter 34 or 35.

(3) Condition of units. Containers and aboveground tanks used to store used oil at transfer facilities shall be:

(a) In good condition (no severe rusting, apparent structural defects or deterioration); and

(b) Not leaking (no visible leaks).

(4) Secondary containment for containers. Containers used to store used oil at transfer facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and
2. A floor. The floor shall cover the entire area within the dikes, berms, or retaining walls; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floors, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(5) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at transfer facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and
2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floors, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(6) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at transfer facilities shall be equipped with a secondary containment system.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and
2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floors, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(7) Labels.

(a) Containers and aboveground tanks used to store used oil at transfer facilities shall be labeled or marked clearly with the words "Used Oil."

(b) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities shall be labeled or marked clearly with the words "Used Oil."

(8) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of 401 KAR 42:060 which has occurred after the effective date of this administrative regulation, the owner or operator of a transfer facility shall perform the following cleanup steps:

(a) Stop the release;

(b) Contain the released used oil;

(c) Clean up and manage properly the released used oil and other materials;

(d) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service;

(e) Notify the cabinet if required by KRS 224.01-400(11) and (12); and

(f) Perform corrective action in compliance with KRS 224.01-405.

Section 7. Tracking. (1) Acceptance. Used oil transporters shall keep a record of each used oil shipment accepted for transport. Records for each shipment shall include:

(a) The name and address of the generator, transporter, or processor or re-refiner who provided the used oil for transport;

(b) The EPA identification number (if applicable) of the generator, transporter, or processor or re-refiner who provided the used oil for transport;

(c) The quantity of used oil accepted;

(d) The date of acceptance; and

(e) 1. Except as provided in subparagraph 2 of this paragraph, the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor or re-refiner who provided the used oil for transport.

2. Intermediate rail transporters are not required to sign the record of acceptance.

(2) Deliveries. Used oil transporters shall keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor or re-refiner, or disposal facility. Records of each delivery shall include:

(a) The name and address of the receiving facility or transporter;

(b) The EPA identification number of the receiving facility or transporter;

(c) The quantity of used oil delivered;

(d) The date of delivery;

(e) 1. Except as provided in subparagraph 2 of this paragraph, the signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter.

2. Intermediate rail transporters are not required to sign the record of delivery.

(3) Exports of used oil. Used oil transporters shall maintain the records described in paragraphs (a) through (d) of this subsection for each shipment of used oil exported to any foreign country.

(4) Record retention. The records described in subsections (1) through (3) of this section shall be maintained for at least two years.

Section 8. Management of Residues. Transporters who generate residues from the storage or transport of used oil shall manage the residues as specified in Section 1 of 401 KAR 44:010.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:050. Standards for used oil processors and re-refiners.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart F

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[40 C.F.R. 279 Subpart F]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for used oil processors and re-refiners. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 279 Subpart F except for additional requirements [provisions] necessary due to statutory requirements for release notification and corrective action for releases located in KRS 224.01-400 and 224.01-405 and submission of Division of Waste Management forms.

Section 1. Applicability. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.50 except (b)(5), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Processors or re-refiners who dispose of used oil also shall comply with 401 KAR 44:080.

Section 2. Notification. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.51, except 40 C.F.R. 279.51(b)(1), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A used oil processor or re-refiner who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of its used oil activity by submitting a completed DEP Form 7037, "Notification for Hazardous Waste Activity", incorporated by reference in 401 KAR 32:010, Section 4.

Section 3. General Facility Standards. (1) The subject matter shall be governed by 40 C.F.R. 279.52, effective July 1, 2005.

(2) In addition to the requirements of 40 C.F.R. 279.52, the requirements of KRS 224.01-400(11) and (12) and 224.01-405 shall be met.

Section 4. Rebuttable Presumption for Used Oil. The subject matter shall be governed by 40 C.F.R. 279.53, effective July 1, 2005.

Section 5. Used Oil Management. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.54, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Upon detection of a release of used oil to the environment, not subject to the requirements established in 401 KAR 42:060, an owner or operator shall notify the cabinet if required by KRS 224.01-400(11) and (12) and perform corrective action in compliance with KRS 224.01-405.

Section 6. Analysis Plan. The subject matter shall be governed

VOLUME 33, NUMBER 12 – JUNE 1, 2007

by 40 C.F.R. 279.55, effective July 1, 2005.

Section 7. Tracking. The subject matter shall be governed by 40 C.F.R. 279.56, effective July 1, 2005.

Section 8. Operating [Operation] Record and Reporting. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.57, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2)(a) Additional reports shall be submitted to the cabinet by March 1 of every odd numbered year.

(b) This report shall be equivalent to the report submitted in subsection (1) of this section in content and quality.

Section 9. Off-site Shipments of Used Oil. The subject matter shall be governed by 40 C.F.R. 279.58, effective July 1, 2005.

Section 10. Management of Residues. The subject matter shall be governed by 40 C.F.R. 279.59, effective July 1, 2005.

[Section 1. Applicability. (1) The requirements of this administrative regulation apply to owners and operators of facilities that process or recycle used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of this administrative regulation do not apply to:

(a) Transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in Section 2 of 401 KAR 44:040; or

(b) Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in Section 2(2) of 401 KAR 44:060.

(2) Other applicable provisions. Used oil processors or re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this chapter as indicated in paragraphs (a) through (e) of this subsection.

(a) Processors or re-refiners who generate used oil shall also comply with 401 KAR 44:020;

(b) Processors or re-refiners who transport used oil shall also comply with 401 KAR 44:040;

(c) Except as provided in subparagraphs 1. and 2. of this paragraph, processors or re-refiners who burn off specification used oil for energy recovery shall also comply with 401 KAR 44:060. Processor or re-refiners burning used oil for energy recovery under the following conditions are not subject to 401 KAR 44:060:

1. The used oil is burned in an on-site space heater that meets the requirements of Section 4 of 401 KAR 44:020; or

2. The used oil is burned for purposes of processing used oil, that is considered burning incidental to used oil processing;

(d) Processors or re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010 shall also comply with 401 KAR 44:070; and

(e) Processors or re-refiners who dispose of used oil also shall comply with 401 KAR 44:080.

Section 2. Notification. (1) Identification numbers. Used oil processors and re-refiners who have not previously complied with the notification requirements of Section 2 of 401 KAR 34:020 or Section 2 of 401 KAR 35:020 shall comply with these requirements and obtain an EPA identification number.

(2) Mechanics of notification. A used oil processor or re-refiner who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of its used oil activity by submitting either:

(a) A completed DEP Form 7037, Notification for Hazardous Waste Activity; or

(b) A letter requesting an EPA identification number. The letter

shall include the following information:

1. Processor or re-refiner company name;

2. Owner of the processor or re-refiner company;

3. Mailing address for the processor or re-refiner;

4. Name and telephone number for the processor or re-refiner point of contact;

5. Type of used oil activity (that is, process only, process and re-refine);

6. Location of the processor or re-refiner facility.

Section 3. General Facility Standards. (1) Preparedness and prevention. Owners and operators of used oil processors and re-refiners facilities shall comply with the following requirements:

(a) Maintenance and operation of facility. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of used oil to air, soil, or surface water that may threaten human health or the environment.

(b) Required equipment. All facilities shall be equipped with the following, unless none of the hazards posed by used oil handled at the facility may require a particular kind of equipment specified in subparagraphs 1 through 4 of this paragraph:

1. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

2. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two (2) way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

3. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

4. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(c) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(d) Access to communications or alarm system.

1. Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in paragraph (b) of this subsection.

2. If there is ever just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two (2) way radio, capable of summoning external emergency assistance, unless such a device is not required in paragraph (b) of this subsection.

(e) Required aisle space. The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(f) Arrangements with local authorities.

1. The owner or operator shall attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

a. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

b. Where more than one (1) police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

c. Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

d. Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses that may result from fires, explosions, or releases at the facility.

2. Where state or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

(2) Contingency plan and emergency procedures. Owners and operators of used oil processing and re-refining facilities shall comply with the following requirements:

(a) Purpose and implementation of contingency plan.

1. Each owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of used oil.

2. The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of used oil that may threaten human health or the environment.

(b) Content of contingency plan.

1. The contingency plan shall describe the actions facility personnel shall take to comply with paragraphs (a) and (f) of this subsection in response to fires, explosions, or any unplanned sudden or nonsudden release of used oil at the facility.

2. If the owner or operator has already prepared a spill prevention, control, and countermeasures (SPCC) plan in accordance with 40 C.F.R. Part 112, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of this chapter.

3. The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to subsection (1)(f) of this section.

4. The plan shall list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (e) of this subsection), and this list shall be kept up to date. Where more than one (1) person is listed, one (1) shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

5. The plan shall include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

6. The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation may be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes may be blocked by releases of used oil or fires).

(c) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan shall be:

1. Maintained at the facility; and

2. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

1. Applicable regulations are revised;

2. The plan fails in an emergency;

3. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of used oil, or changes the response necessary in an emergency;

4. The list of emergency coordinators changes; or

5. The list of emergency equipment changes.

(e) Emergency coordinator. At all times, there shall be at least one employee either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility within

a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of used oil handled, the location of all records within the facility, and facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in paragraph (f) of this subsection. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of used oil handled by the facility, and type and complexity of the facility.

(f) Emergency procedures.

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) shall immediately:

a. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

b. Notify appropriate State or local agencies with designated response roles if their help is needed;

c. Notify the cabinet if required by KRS 224.01-400(11) and (12).

2. Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and a real extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

3. Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (for example, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water of chemical agents used to control fire and heat-induced explosions).

4. If the emergency coordinator determines that the facility has had a release, fire, or explosion that may threaten human health, or the environment, outside the facility, he shall report his findings as follows:

a. If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to help appropriate officials decide whether local areas shall be evacuated; and

b. He shall immediately notify the cabinet within twenty-four (24) hours, as required by KRS 224.01-400(11). The notification shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (for example, release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

5. During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil or hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.

6. If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

7. Immediately after an emergency, the emergency coordinator shall provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

8. The emergency coordinator shall ensure that, in the affected area(s) of the facility:

a. No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed; and

b. All emergency equipment listed in the contingency plan is

cleaned and fit for its intended use before operations are resumed.

9. The owner or operator shall notify the cabinet, and appropriate State and local authorities that the facility is in compliance with subparagraphs 8a and 8b of this paragraph before operations are resumed in the affected area(s) of the facility.

10. The owner or operator shall note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within fifteen (15) days after the incident, he shall submit a written report on the incident to the cabinet. The report shall include:

- a. Name, address, and telephone number of the owner or operator;
 - b. Name, address, and telephone number of the facility;
 - c. Date, time, and type of incident (for example, fire, explosion);
 - d. Name and quantity of material(s) involved;
 - e. The extent of injuries, if any;
 - f. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
 - g. Estimated quantity and disposition of recovered material that resulted from the incident; and
- (g) Perform corrective action in compliance with KRS 224.01-405.

Section 4. Rebuttable Presumption for Used Oil. (1) To ensure that used oil managed at a processing or re-refining facility is not hazardous waste under the rebuttable presumption of Section 1(2)(a)2 of 401 KAR 44:010, the owner or operator of a used oil processing or re-refining facility shall determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(2) The owner or operator shall make this determination by:

- (a) Testing the used oil; or
- (b) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(3) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 401 KAR 31:040. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 401 KAR 31:170).

(a) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.

(b) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

Section 5. Used Oil Management. Used oil processor or re-refiners are subject to all applicable Spill Prevention, Control and Countermeasures (40 C.F.R. Part 112) in addition to the requirements of this administrative regulation. Used oil processors or re-refiners are also subject to the Underground Storage Tank (401 KAR Chapter 42) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this administrative regulation.

(1) Management units. Used oil processors or re-refiners shall not store used oil in units other than tanks, containers, or units subject to regulation under 401 KAR Chapter 34 or 35.

(2) Condition of units. Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities shall be:

- (a) In good condition (no severe rusting, apparent structural defects or deterioration); and
- (b) Not leaking (no visible leaks).

(3) Secondary containment for containers. Containers used to store or process used oil at processing and re-refining facilities shall

be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

- 1. Dikes, berms or retaining walls; and
- 2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall;

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(4) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store or process used oil at processing and re-refining facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

- 1. Dikes, berms or retaining walls; and
- 2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(5) Secondary containment for new aboveground tanks. New aboveground tanks used to store or process used oil at processing and re-refining facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

- 1. Dikes, berms or retaining walls; and
- 2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(6) Labels.

(a) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities shall be labeled or marked clearly with the words "Used Oil."

(b) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities shall be labeled or marked clearly with the words "Used Oil."

(7) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements 401 KAR 42:060 that has occurred after the effective date of the authorized used oil program for the state in which the release is located, an owner or operator shall perform the following cleanup steps:

- (a) Stop the release;
- (b) Contain the released used oil;
- (c) Clean up and manage properly the released used oil and other materials; and

(d) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service;

(e) Notify the cabinet if required by KRS 224.01-400(11) and (12); and

(f) Perform corrective action in compliance with KRS 224.01-405.

(8) Closure.

(a) Aboveground tanks. Owners and operators who store or process used oil in aboveground tanks shall comply with the following requirements:

1. At closure of a tank system, the owner or operator shall remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste.

2. If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in subparagraph 1 of this paragraph, then the owner or operator shall close the tank system and perform post-closure care in ac-

cordance with the closure and post-closure care requirements that apply to hazardous waste landfills (Section 4 of 401 KAR 35:230).

(b) Containers. Owners and operators who store used oil in containers shall comply with the following requirements:

1. At closure, containers holding used oils or residues of used oil shall be removed from the site;
2. The owner or operator shall remove or decontaminate used oil residues, contaminated containment system components, contaminated coils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under 401 KAR Chapter 31.

Section 6. Analysis Plan. Owners or operators of used oil processing and re-refining facilities shall develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of Section 4 of this administrative regulation and, if applicable, Section 3 of 401 KAR 44:070. The owner or operator shall keep the plan at the facility.

(1) Rebuttable presumption for used oil in Section 4 of this administrative regulation. At minimum, the plan shall specify the following:

(a) Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.

(b) If sample analyses are used to make this determination:

1. The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

- a. One (1) of the sampling methods in 401 KAR 31:100; or
- b. A method shown to be equivalent under Sections 1 and 6 of 401 KAR 31:060;

2. The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

3. The methods used to analyze used oil for the parameters specified in Section 4 of this administrative regulation.

(c) If sample analyses are not used, the type of information that will be used to determine the halogen content of the used oil.

(2) On-specification used oil fuel in Section 3 of 401 KAR 44:070. At a minimum, the plan shall specify the following if Section 3 of 401 KAR 44:070 is applicable:

(a) Whether sample analyses or other information will be used to make this determination.

(b) If sample analyses are used to make this determination:

1. The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

- a. One (1) of the sampling methods in 401 KAR 31:100; or
- b. A method shown to be equivalent under Sections 1 and 6 of 401 KAR 31:060;

2. Whether used oil will be sampled and analyzed prior to or after any processing or re-refining;

3. The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

4. The methods used to analyze used oil for the parameters specified in Section 3 of 401 KAR 44:070.

(c) If sample analyses are not used, the type of information that will be used to make the on-specification used oil fuel determination.

Section 7. Tracking. (1) Acceptance. Used oil processors or re-refiners shall keep a record of each used oil shipment accepted for processing or re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(a) The name and address of the transporter who delivered the used oil to the processor or re-refiner;

(b) The name and address of the generator or processor or re-refiner from whom the used oil was sent for processing or re-refining;

(c) The EPA identification number of the transporter who delivered the used oil to the processor or re-refiner;

(d) The EPA identification number (if applicable) of the generator or processor or re-refiner from whom the used oil was sent for processing or re-refining;

(e) The quantity of used oil accepted; and

(f) The date of acceptance.

(2) Delivery. Used oil processor or re-refiners shall keep a record

of each shipment of used oil that is shipped to a used oil burner, processor or re-refiner, or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(a) The name and address of the transporter who delivers the used oil to the burner, processor or re-refiner or disposal facility;

(b) The name and address of the burner, processor or re-refiner or disposal facility who will receive the used oil;

(c) The EPA identification number of the transporter who delivers the used oil to the burner, processor or re-refiner or disposal facility;

(d) The EPA identification number of the burner, processor or re-refiner, or disposal facility who will receive the used oil;

(e) The quantity of used oil shipped; and

(f) The date of shipment.

(3) Record retention. The records described in subsections (1) and (2) of this section shall be maintained for at least two years.

Section 8. Operating Record and Reporting. (1) Operating record.

(a) The owner or operator shall keep a written operating record at the facility.

(b) The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

1. Records and results of used oil analyses performed as described in the analysis plan required under Section 6 of this administrative regulation; and

2. Summary reports and details of all incidents that require implementation of the contingency plan as specified in Section 3(2) of this administrative regulation.

(2) Reporting. A used oil processor or re-refiner shall report to the cabinet, in the form of a letter, on an annual basis (by March 1 of each year), the following information concerning used oil activities during the previous calendar year:

(a) The EPA identification number, name, and address of the processor or re-refiner;

(b) The calendar year covered by the report; and

(c) The quantities of used oil accepted for processing or re-refining and the manner in which the used oil is processed or re-refined, including the specific processes employed.

Section 9. Off-site Shipments of Used Oil. Used oil processors or re-refiners who initiate shipments of used oil off-site shall ship the used oil using a used oil transporter who has obtained an EPA identification number.

Section 10. Management of Residues. Owners and operators who generate residues from the storage, processing, or re-refining of used oil shall manage the residues as specified in Section 1(5) OF 401 KAR 44:010.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2007 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

**ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)**

401 KAR 44:060. Standards for used oil burners who burn off-specification used oil for energy recovery.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart G

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[40 C.F.R. 279 Subpart G]

NECESSITY, FUNCTION, AND CONFORMITY: **KRS 224.46-530 authorizes the Environmental and Public Protection Cabi-**

net to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for used oil burners who burn off-specification used oil for energy recovery. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 279 Subpart G except for additional provisions necessary due to statutory requirements for release notification and corrective action for releases located in KRS 224.01-400 and 224.01-405 and submission of Division of Waste Management forms.

Section 1. Applicability. (1) Except as provided in subsections (2) and (3) of this section, the subject matter shall be governed by 40 C.F.R. 279.60 except 401 C.F.R. 279.60(b)(5), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Burners who dispose of used oil shall comply with 401 KAR 44:080.

(3) [The use of] Waste or used oil shall not be used as a dust suppressant [is prohibited] in the Commonwealth of Kentucky.

Section 2. Restrictions on Burning. The subject matter shall be governed by 40 C.F.R. 279.61, effective July 1, 2005.

Section 3. Notification. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.62, except 40 C.F.R. 279.62(b)(1), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A used oil burner who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of their used oil activity by submitting a completed DEP Form 7037, "Notification of Hazardous Waste Activity", incorporated by reference in 401 KAR 32:010, Section 4.

Section 4. Rebuttable Presumption for Used Oil. The subject matter shall be governed by 40 C.F.R. 279.63, effective July 1, 2005.

Section 5. Used Oil Storage. (1) Except as provided in subsection (2) of this section, the subject matter shall be governed by 40 C.F.R. 279.64, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Upon detection of a release of used oil to the environment not subject to the requirements of 401 KAR 42:060, a burner shall notify the cabinet if required by KRS 224.01-400(11) and (12) and perform corrective action in compliance with KRS 224.01-405.

Section 6. Tracking. The subject matter shall be governed by 40 C.F.R. 279.65, effective July 1, 2005.

Section 7. Notices. The subject matter shall be governed by 40 C.F.R. 279.66, effective July 1, 2005.

Section 8. Management of residues. The subject matter shall be governed by 40 C.F.R. 279.67, effective July 1, 2005.

[Section 1. Applicability. (1) General. The requirements of this administrative regulation apply to used oil burners except as specified in paragraphs (a) and (b) of this subsection. A used oil burner is a facility where used oil not meeting the specification requirements in Section 2 of 401 KAR 44:010 is burned for energy recovery in devices identified in Section 2(1) of this administrative regulation. Facilities burning used oil for energy recovery under the following conditions are not subject to this administrative regulation:

(a) The used oil is burned by the generator in an on-site space heater under the provisions of Section 4 of 401 KAR 44:020; or

(b) The used oil is burned by a processor or re-refiner for purposes of processing used oil, that is considered burning incidental to used oil processing.

(2) Other applicable provisions. Used oil burners who conduct the following activities are also subject to the requirements of other

applicable provisions of this chapter as indicated below.

(a) Burners who generate used oil shall also comply with 401 KAR 44:020;

(b) Burners who transport used oil shall also comply with 401 KAR 44:040;

(c) Except as provided in Section 2(2) of this administrative regulation, burners who process or re-refine used oil shall also comply with 401 KAR 44:050;

(d) Burners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010 shall also comply with 401 KAR 44:070; and

(e) Burners who dispose of used oil shall comply with 401 KAR 44:080.

(3) Specification fuel. This administrative regulation does not apply to persons burning used oil that meets the used oil fuel specification of Section 2 of 401 KAR 44:010, provided that the burner complies with the requirements of 401 KAR 44:070.

Section 2. Restrictions on Burning. (1) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(a) Industrial furnaces identified in Section 3 of 401 KAR 44:010;

(b) Boilers, as defined in Section 3 of 401 KAR 44:010, that are identified as follows:

1. Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

2. Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

3. Used oil-fired space heaters provided that the burner meets the provisions of Section 4 of 401 KAR 44:020; or

(c) Hazardous waste incinerators subject to regulation under 401 KAR 34:240 or 35:240.

(2)(a) With the following exception, used oil burners shall not process used oil unless they also comply with the requirements of 401 KAR 44:050.

(b) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but shall not aggregate for purposes of producing on-specification used oil.

Section 3. Notification. (1) Identification numbers. Used oil burners that have not previously complied with the notification requirements of Section 2 of 401 KAR 34:020 or Section 2 of 401 KAR 35:020 shall comply with these requirements and obtain an EPA identification number.

(2) Mechanics of notification. A used oil burner who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of their used oil activity by submitting either:

(a) A completed DEP Form 7037, Notification of Hazardous Waste Activity; or

(b) A letter requesting an EPA identification number. The letter shall include the following information:

1. Burner company name;
2. Owner of the burner company;
3. Mailing address for the burner;
4. Name and telephone number for the burner point of contact;
5. Type of used oil activity; and
6. Location of the burner facility.

Section 4. Rebuttable Presumption for Used Oil. (1) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of Section 1(2)(a)2.b. of 401 KAR 44:010, a used oil burner shall determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(2) The used oil burner shall determine if the used oil contains above or below 1,000 ppm total halogens by:

- (a) Testing the used oil;

(b) Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or

(c) If the used oil has been received from a processor or refiner subject to regulation under 401 KAR 44:050, using information provided by the processor or re-refiner.

(3) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 401 KAR 31:040. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 401 KAR 31:170).

(a) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in Section 5(3) of 401 KAR 44:020, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if such oils or fluids are recycled in any other manner, or disposed.

(b) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(4) Record retention. Records of analyses conducted or information used to comply with subsections (1) through (3) of this section shall be maintained by the burner for at least two (2) years.

Section 5. Used Oil Storage. Used oil burners are subject to all applicable spill prevention, control and countermeasures (40 C.F.R. Part 112) in addition to the requirements of this administrative regulation. Used oil burners are also subject to the underground storage tank (401 KAR Chapter 42) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this administrative regulation.

(1) Storage units. Used oil burners shall not store used oil in units other than tanks, containers, or units subject to regulation under 401 KAR Chapter 34 or 35.

(2) Condition of units. Containers and aboveground tanks used to store oil at burner facilities shall be:

(a) In good condition (no severe rusting, apparent structural defects or deterioration); and

(b) Not leaking (no visible leaks).

(3) Secondary containment for containers. Containers used to store used oil at burner facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and

2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall.

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(4) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at burner facilities shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and

2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(5) Secondary containment for existing aboveground tanks. New aboveground tanks used to store used oil at burner facilities

shall be equipped with a secondary containment system.

(a) The secondary containment system shall consist of, at a minimum:

1. Dikes, berms or retaining walls; and

2. A floor. The floor shall cover the entire area within the dike, berm, or retaining wall; or

(b) An equivalent secondary containment system.

(c) The entire containment system, including walls and floor, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(6) Labels.

(a) Containers and aboveground tanks used to store used oil at burner facilities shall be labeled or marked clearly with the words "Used Oil."

(b) Fill pipes used to transfer used oil into underground storage tanks at burner facilities shall be labeled or marked clearly with the words "Used Oil."

(7) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of 401 KAR 42:060 that has occurred after the effective date of this administrative regulation, a burner shall perform the following cleanup steps:

(a) Stop the release;

(b) Contain the released used oil;

(c) Clean up and manage properly the released used oil and other materials; and

(d) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service;

(e) Notify the cabinet if required by KRS 224.01-400(11) and (12); and

(f) Perform corrective action in compliance with KRS 224.01-405.

Section 6. Tracking. (1) Acceptance. Used oil burners shall keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment shall include the following information:

(a) The name and address of the transporter who delivered the used oil to the burner;

(b) The name and address of the generator or processor or re-refiner from whom the used oil was sent to the burner;

(c) The EPA identification number of the transporter who delivered the used oil to the burner;

(d) The EPA identification number (if applicable) of the generator or processor or re-refiner from whom the used oil was sent to the burner;

(e) The quantity of used oil accepted; and

(f) The date of acceptance.

(2) Record retention. The records described in subsection (1) of this section shall be maintained for at least two (2) years.

Section 7. Notices. (1) Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor or re-refiner, the burner shall provide to the generator, transporter, or processor or re-refiner a one (1) time written and signed notice certifying that:

(a) The burner has notified the cabinet stating the location and general description of his used oil management activities; and

(b) The burner will burn the used oil only in an industrial furnace or boiler identified in Section 2(1) of this administrative regulation.

(2) Certification retention. The certification described in subsection (1) of this section shall be maintained for two (2) years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor or re-refiner.

Section 8. Management of Residues. Burners who generate residues from the storage or burning of used oil shall manage the residues as specified in Section 1(5) of 401 KAR 44:010.]

TERESA J. HILL, Secretary

APPROVED BY AGENCY: November 13, 2006

FILED WITH LRC: January 3, 2006 at 2 p.m.

CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:070. Standards for used oil fuel marketers.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart H

STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[; 40 C.F.R. 279 Subpart H]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or disposed of properly [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes standards for used oil fuel marketers. This administrative regulation is equivalent to federal standards established in 40 C.F.R. 279 Subpart H except for additional provisions necessary due to statutory requirements for release notification and corrective action for releases located in KRS 224.01-400 and 224.01-405 and submission of Division of Waste Management forms.

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 279.70, effective July 1, 2005.

Section 2. Prohibitions. The subject matter shall be governed by 40 C.F.R. 279.71, effective July 1, 2005.

Section 3. On-specification Used Oil Fuel. (1) **Except as provided in subsection (2) of this section**, the subject matter shall be governed by 40 C.F.R. 279.72, effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) Upon detection of a release of used oil to the environment not subject to the requirements of 401 KAR 42:060, a burner shall notify the cabinet if required by KRS 224.01-400(11) and (12) and perform corrective action in compliance with KRS 224.01-405.

Section 4. Notification. (1) **Except as provided in subsection (2) of this section**, the subject matter shall be governed by 40 C.F.R. 279.73, except 40 C.F.R. 279.73(b)(1), effective July 1, 2005 [with the modifications, exceptions, and additions that are set forth in this section].

(2) A marketer who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of their used oil activity by submitting a completed DEP Form 7037, "Notification of Hazardous Waste Activity", incorporated by reference in 401 KAR 32:010, Section 4.

Section 5. Tracking. The subject matter shall be governed by 40 C.F.R. 279.74, effective July 1, 2005.

Section 6. Notices. The subject matter shall be governed by 40 C.F.R. 279.75, effective July 1, 2005.

[Section 1. Applicability. (1) Any person who conducts either of the following activities is subject to the requirements of this administrative regulation:

(a) Directs a shipment of off-specification used oil from its facility to a used oil burner; or

(b) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section 2 of 401 KAR 44:010.

(2) The following persons are not marketers subject to this administrative regulation:

(a) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or trans-

porter directs a shipment of off-specification used oil to a used oil burner. However, processors or re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidental to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processors or re-refiners who incidentally burn used oil are not marketers subject to this administrative regulation;

(b) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of Section 2 of 401 KAR 44:010.

(3) Any person subject to the requirements of this administrative regulation shall also comply with one of the following:

(a) 401 KAR 44:020, Standards for used oil generators;

(b) 401 KAR 44:040, Standards for used oil transporters and transfer facilities;

(c) 401 KAR 44:050, Standards for used oil processors and re-refiners; or

(d) 401 KAR 44:060, Standards for used oil burners who burn off-specification used oil for energy recovery.

Section 2. Prohibitions. A used oil fuel marketer shall initiate a shipment of off-specification used oil only to a used oil burner who:

(1) Has an EPA identification number; and

(2) Burns the used oil in an industrial furnace or boiler identified in Section 2(1) of 401 KAR 44:060 or in a hazardous waste incinerator subject to 401 KAR Chapters 34 or 35.

Section 3. On-specification Used Oil Fuel. (1) Analysis of used oil fuel. A generator, transporter, processor or re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Section 2 of 401 KAR 44:010 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

(2) Record retention. A generator, transporter, processor or re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under Section 2 of 401 KAR 44:010, shall keep copies of analyses of the used oil (or other information used to make the determination) for two (2) years.

Section 4. Notification. (1) Identification numbers. A used oil fuel marketer subject to the requirements of this administrative regulation who has not previously complied with the notification requirements of Section 2 of 401 KAR 34:020 or Section 2 of 401 KAR 35:020 shall comply with these requirements and obtain an EPA identification number.

(2) A marketer who has not received an EPA identification number shall obtain one by notifying the cabinet's Hazardous Waste Branch of their used oil activity by submitting either:

(a) A completed DEP Form 7037, Notification of Hazardous Waste Activity; or

(b) A letter requesting an EPA identification number. The letter shall include the following information:

1. Marketer company name;

2. Owner of the marketer;

3. Mailing address for the marketer;

4. Name and telephone number for the marketer point of contact; and

5. Type of used oil activity (that is, generator directing shipments of off-specification used oil to a burner).

Section 5. Tracking. (1) Off-specification used oil delivery. Any used oil marketer who directs a shipment of off-specification used oil to a burner shall keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(a) The name and address of the transporter who delivers the used oil to the burner;

(b) The name and address of the burner who will receive the used oil;

(c) The EPA identification number of the transporter who delivers the used oil to the burner;

- (d) The EPA identification number of the burner;
- (e) The quantity of used oil shipped; and
- (f) The date of shipment.

(2) On-specification used oil delivery. A generator, transporter, processor or re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under Section 2 of 401 KAR 44:010 shall keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment shall include the following information:

- (a) The name and address of the facility receiving the shipment;
- (b) The quantity of used oil fuel delivered;
- (c) The date of shipment or delivery; and
- (d) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under Section 3(1) of this administrative regulation.

(3) Record retention. The records described in subsections (1) and (2) of this section shall be maintained for at least two (2) years.

Section 6. Notices. (1) Certification. Before a used oil generator, transporter, or processor or re-refiner directs the first shipment of off-specification used oil fuel to a burner, he shall obtain a one-time written and signed notice from the burner certifying that:

- (a) The burner has notified the cabinet stating the location and general description of used oil management activities; and
- (b) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in Section 2(1) of 401 KAR 44:060.

(2) Certification retention. The certification described in subsection (1) of this section shall be maintained for two years from the date the last shipment of off-specification used oil is shipped to the burner.]

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: January 3, 2007 at 2 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division of Waste Management
(As Amended at ARRS, May 8, 2007)

401 KAR 44:080. Standards for use as a dust suppressant and disposal of used oil.

RELATES TO: KRS Subchapters 224.10, 224.40, 224.46, 224.50, 40 C.F.R. [Part] 279 Subpart I
STATUTORY AUTHORITY: KRS 224.10-100, 224.46-510, 224.46-530, 224.50-545[~~40 C.F.R. 279 Subpart I~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-530 authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations. KRS 224.50-545 provides that used automotive and industrial oil shall be recycled or properly disposed of [This chapter implements the provisions of KRS 224.46-530 and 224.50-545]. This administrative regulation establishes requirements for the disposal of used oil and prohibits the use of used oil as a dust suppressant.

Section 1. Applicability. The subject matter shall be governed by 40 C.F.R. 279.80, effective July 1, 2005.

Section 2. Disposal. The subject matter shall be governed by 40 C.F.R. 279.81, effective July 1, 2005.

Section 3. Use as a Dust Suppressant. Used oil shall not be used as a dust suppressant within the Commonwealth of Kentucky.

[Section 1. Applicability. The requirements of this administrative regulation apply to all used oils that cannot be recycled and

are therefore being disposed.

Section 2. Disposal. (1) Disposal of hazardous used oils. Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this chapter shall be managed in accordance with the hazardous waste management requirements of 401 KAR Chapters 31 through 39.

(2) Disposal of nonhazardous used oils. Used oils that are not hazardous wastes and cannot be recycled under this chapter shall be disposed in accordance with the requirements of 401 KAR Chapters 47 and 48.

Section 3. Use as a Dust Suppressant. The use of used oil as a dust suppressant is prohibited.]

TERESA J. HILL, Secretary
APPROVED BY AGENCY: November 13, 2006
FILED WITH LRC: January 3, 2007 at 2 p.m.
CONTACT PERSON: R. Bruce Scott, P. E., Director, Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, phone (502) 564-6716, fax (502) 564-4049.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality
(As Amended at ARRS, May 8, 2007)

401 KAR 51:220. CAIR NOx ozone season trading program.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11-75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 U.S.C. 7410

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) authorizes [requires] the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes requirements for the control of nitrogen oxides (NOx) emissions from large boilers and turbines used in power plants and other industrial applications, pursuant to the federal mandate published under the Clean Air Interstate Rule (CAIR), 40 C.F.R. 96.301 to 96.388. This administrative regulation is not more stringent than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to:

(1) CAIR NOx Ozone Season units in Kentucky [that are] subject to 40 C.F.R. 96.304; [or]

(2) A [Any] new or existing industrial boiler or turbine [as defined in 401 KAR 51:001] [An industrial boiler or turbine as defined in 401 KAR 51:001 that was previously allocated NOx allowances pursuant to 401 KAR 51:160]; or

(3) A [Any] new or existing electric generating unit], as defined in 401 KAR 51:001, as a fossil fuel-fired boiler, combustion turbine or a combined cycle system that serves a generator with a nameplate capacity greater than twenty-five (25) MWe, producing electricity, some of which is for sale [A unit that qualifies as a cogeneration unit pursuant to 40 C.F.R. 96.304(b)(1)(i) and that was previously allocated NOx allowances pursuant to 401 KAR 51:160].

Section 2. Compliance Requirements. CAIR NOx Ozone Season units shall comply with the following requirements:

- (1) 40 C.F.R. 96.301 to 96.308 (Subpart AAAA), "CAIR NOx Ozone Season Trading Program General Provisions";
- (2) 40 C.F.R. 96.310 to 96.315 (Subpart BBBB), "CAIR Designated Representative for CAIR NOx Ozone Season Sources";
- (3) 40 C.F.R. 96.320 to 96.324 (Subpart CCCC), "Permits";
- (4) 40 C.F.R. 96.350 to 96.357 (Subpart FFFF), "CAIR NOx Ozone Season Allowance Tracking System";

VOLUME 33, NUMBER 12 – JUNE 1, 2007

(5) 40 C.F.R. 96.360 to 96.362 (Subpart GGGG), "CAIR NOx Ozone Season Allowance Transfers";

(6) 40 C.F.R. 96.370 to 96.375 (Subpart HHHH), "Monitoring and Reporting"; and

(7) 40 C.F.R. 96.380 to 96.388 (Subpart IIII), "CAIR NOx Ozone Season Opt-in Units".

Section 3. Methodology for the Allocation of CAIR NOx Ozone Season Allowances. The number of CAIR NOx Ozone Season allowances to be allocated to each CAIR NOx Ozone Season unit by the cabinet and to be sold by the Commonwealth of Kentucky shall be determined pursuant to this section.

(1) The total number of CAIR NOx Ozone Season allowances shall be as follows:

(a) For the 2009 through 2014 control periods, 36,109 tons, which includes 36,045 tons as specified in 40 C.F.R. 96.340, and sixty-four (64) allowances previously allocated under 401 KAR 51:160 for units specified in Section 1(2) of this administrative regulation; and

(b) For the 2015 control periods and thereafter, 30,651 tons, which includes 30,587 tons as specified in 40 C.F.R. 96.340[,] and sixty-four (64) allowances previously allocated under 401 KAR 51:160 for units specified in Section 1(2) of this administrative regulation.

(2) The total number of CAIR NOx Ozone Season allowances assigned to Kentucky shall be divided into separate pools as follows:

(a) Ninety-eight (98) percent of the total number of allowances shall be allocated for each control period to units that commence operation or commence commercial operation before:

1. January 1, 2006, for the control periods 2009, 2010, 2011, 2012, 2013, and 2014;

2. January 1, 2009, for the 2015 control period; and

3. Thereafter, before January 1 of the year that is six (6) years before the next control period; and

(b) Two (2) percent of the total number of allowances for each control period shall be sold by the Commonwealth of Kentucky in accordance with Section 4 of this administrative regulation.

(3) For each CAIR NOx Ozone Season unit, the baseline heat input or adjusted control period heat input in mmBtu shall be determined and shall be used to determine CAIR NOx Ozone Season allowances for the pool specified in subsection (2) of this section as follows:

(a) For CAIR NOx Ozone Season units commencing operation or commencing commercial operation before January 1, 2001, and:

1. Operating each calendar year during a period of five (5) or more consecutive years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for 2001 through 2005; or

2. For units not having operated each calendar year for a period of five (5) or more consecutive years, the baseline heat input shall be established during the next allocation period ~~after~~ ~~when~~ the unit has five (5) consecutive years of operation, using the average of the three (3) highest amounts of the unit's adjusted control period heat input for the most recent five (5) consecutive years of operation; ~~or~~

(b) For CAIR NOx Ozone Season units commencing operation or commencing commercial operation on or after January 1, 2001, and operating each calendar year during a period of five (5) or more consecutive years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input over the most recent consecutive five (5) years of operation; or

(c) For CAIR NOx Ozone Season units that have not operated each calendar year during a period of five (5) or more consecutive years, the **baseline heat input shall not be established. For purposes of allocations, the heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for the previous five (5) years of operation, the:**

1. Adjusted control period heat input for a control period of not operating shall equal zero; and

2. [average of the three (3) highest amounts of the unit's adjusted control period heat input for the previous five (5) years of

~~operation, where the:~~

~~1. Unit shall not establish a baseline heat input;~~

~~2. Adjusted control period heat input for a control period of not operating shall equal zero;~~

~~3.] Cabinet shall allocate CAIR NOx Ozone Season allowances for the unit.~~

(4) The adjusted control period heat input for each ozone season shall be calculated [as follows] for CAIR NOx Ozone Season units specified in subsection (2)(a) of this section **as follows:**

(a) If the unit is coal-fired during the year, the unit's control period heat input for that year shall be multiplied by 100 percent;

(b) If the unit is oil-fired during the year, the unit's control period heat input for that year shall be multiplied by sixty (60) percent; and

(c) If the unit is not subject to paragraphs (a) or (b) of this subsection, the unit's control period heat input for that year shall be multiplied by forty (40) percent. ~~]; and~~

(5) The adjusted control period heat input for CAIR NOx Ozone Season units specified in subsection (2)(b) of this section shall equal the unit's control period heat input multiplied by 100 percent.

(6) For an ozone season, the unit's control period heat input and the unit's status as coal-fired or oil-fired shall be determined:

(a) In accordance with 40 C.F.R. Part 75, if the unit is subject to 40 C.F.R. Part 75;

(b) By the best available data reported to the cabinet for the unit if the unit is not otherwise subject to 40 C.F.R. Part 75; or

(c) By the best available data obtained by the cabinet.

(7) For CAIR NOx Ozone Season units included in the pool specified in subsection (2)(a) of this section, the cabinet shall allocate CAIR NOx Ozone Season allowances to each CAIR NOx Ozone Season unit in an amount equal to the result obtained by:

(a) Multiplying the total amount of CAIR NOx Ozone Season allowances specified in subsection (2)(a) of this section by the baseline heat input for each unit or the heat input established under subsection (3)(c) of this section;

(b) Dividing by the total amount of baseline heat input and the heat input established under subsection (3)(c) of this section for all applicable CAIR NOx Ozone Season units; and

(c) Rounding to the nearest whole CAIR NOx Ozone Season allowance, as appropriate.

(8) The cabinet shall submit to the U.S. EPA the CAIR NOx Ozone Season allowances to be allocated and sold from the pools specified in subsection (2) of this section in a format prescribed by the U.S. EPA by:

(a) October 31, 2006, for the control periods in 2009, 2010, 2011, 2012, 2013, and 2014; ~~and~~

(b) October 31, 2009, for ~~the~~ control period 2015; and

(c) October 31 of each year thereafter, for the control period in the sixth year after the year of the applicable deadline for submission.

Section 4. Sale of CAIR NOx Allowances by the Commonwealth of Kentucky.

(1) The Commonwealth of Kentucky shall establish an account pursuant to 40 C.F.R. 96.351(b) for the purpose of selling the CAIR NOx Ozone Season allowances in the pool specified in Section 3(2)(b) of this administrative regulation.

(2) The proceeds from the sale of the CAIR NOx Ozone Season allowances shall be deposited in the general fund of the Commonwealth of Kentucky.

LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary

APPROVED BY AGENCY: February 15, 2007

FILED WITH LRC: February 15, 2007 at 10 a.m.

CONTACT PERSON: Gerry Ennis, Environmental Technologist III, Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, phone (502) 573-3382, fax (502) 573-3787, email gerry.ennis@ky.gov.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
 Department For Environmental Protection
 Division for Air Quality
 (As Amended at ARRS, May 8, 2007)

401 KAR 60:020. Mercury Budget Trading Program.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 60, 72, 75, 42 U.S.C. 7410, 7411

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410, 7411

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) and (30) authorize [requires] the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes requirements for the control of mercury emissions from coal-fired electric generating units, pursuant to the federal mandate published under the "Clean Air Mercury Rule (CAMR)", 40 C.F.R. 60.4101 to 60.4176. This administrative regulation is not more stringent than the provisions required by [allowed under] the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to Hg Budget sources and all Hg Budget units at those sources in Kentucky that are subject to 40 C.F.R. 60.4104.

Section 2. Hg Budget sources and all Hg Budget units at those sources shall comply with the following requirements:

- (1) 40 C.F.R. 60.4101 through [to] 60.4108, "Hg Budget Trading Program General Provisions", except for 40 C.F.R. 60.4105, subparagraph (b)(2);
- (2) 40 C.F.R. 60.4110 through [to] 60.4114, "Hg Designated Representative for Hg Budget Sources";
- (3) 40 C.F.R. 60.4120 through [to] 60.4124, "Permits";
- (4) 40 C.F.R. 60.4151 through [to] 60.4157, "Hg Allowance Tracking System";
- (5) 40 C.F.R. 60.4160 through [to] 60.4162, "Hg Allowance Transfers"; and
- (6) 40 C.F.R. 60.4170 through [to] 60.4176, "Monitoring and Reporting".

Section 3. Hg Allowance Allocations. The number of Hg allowances to be allocated to each Hg Budget unit by the cabinet and to be sold by the Commonwealth of Kentucky shall be determined pursuant to this section.

(1) The total number of Hg allowances shall equal the total number of ounces [tons] in the Kentucky annual trading budget, which for the control periods in 2010 through 2017 is 48,800 ounces (1.525 tons) and in 2018 and thereafter is 19,264 ounces (0.602 tons).

(2) The total number of Hg allowances as determined in Section 3(1) shall be divided into two (2) separate pools as follows:

- (a) Ninety-eight (98) percent of this amount allocated for each control period; and
- (b) Two (2) percent of this amount for each control period, to be sold by the Commonwealth of Kentucky with the proceeds deposited in Kentucky's general fund.

(3) For each Hg Budget unit, the baseline heat input in MMBtu shall be determined and shall be used to determine Hg allowance allocations as follows:

(a) For units commencing operation before January 1, 2001, the baseline heat input shall be the average of the three highest amounts of the unit's control period heat input for 2001 through 2005 and shall be: [-]

[1- A unit's control period heat input for a calendar year under this paragraph shall be:]

1. [a-] Determined in accordance with 40 C.F.R. part 75 to the extent the unit was otherwise subject to the requirements of 40 C.F.R. Part 75 for the year; or
2. [b-] Based on the best available data reported to the cabinet for the unit, to the extent the unit was not otherwise subject to the requirements of 40 C.F.R. Part 75 for the year.

[2- The unit's types and amounts of fuel combusted, under this paragraph, shall be based on the best available data reported to

the cabinet for the unit.]

(b) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of 5 (five) or more consecutive calendar years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's total converted control period heat input over the first five (5) consecutive year period. [The unit's converted control period heat input for a calendar year shall equal:]

1. Except as provided in subparagraphs 3 or 4 of this paragraph, the unit's converted control period heat input for a calendar year shall equal:

a. The [subparagraph 2 or 3 of this paragraph, the] control period gross electrical output of the generator or generators served by the unit;

b. [a-] Multiplied by 7,900 Btu/kWh; and
 c. [b-] Divided by 1,000,000 Btu/MMBtu. [- and]

2. [e- Provided that] If a generator is served by two (2) or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of each unit for the year.

3. If a unit is a boiler and has: [- 2- The total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by eight tenths (0.8) and by 1,000,000 Btu/MMBtu for a unit that:

a. Is a boiler; and

b. Has] equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, unit's converted control period heat input for a calendar year shall equal:

a. The total heat energy (in Btu) of the steam produced by the boiler during the control period;

b. Divided by 0.8; and

c. Divided by 1,000,000 Btu/MMBtu.

4. If a unit is a combustion turbine and has: [- or 3- The control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period divided by eight tenths (0.8), and with the sum divided by 1,000,000 Btu/MMBtu for a unit that:

a. Is a combustion turbine; and

b. Has] equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the unit's converted control period heat input for a calendar year shall equal:

a. The control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine;

b. Multiplied by 3,413 Btu/kWh;

c. Plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period;

d. Divided by 0.8; and

e. With the sum divided by 1,000,000 Btu/MMBtu.

(4) For each control period in 2010 and thereafter, the cabinet shall allocate:

(a) The [To all Hg Budget units that have a baseline heat input, as determined under subsection (3) of this section, a] total amount of Hg allowances equal to the amount of Hg allowances in the pool established under subsection (2)(a) of this section apportioned among all Hg Budget units that have a baseline heat input, as determined under subsection (3) of this section;

(b) Hg allowances to each Hg Budget unit that has a baseline heat input, as determined under subsection (3) of this section, in an amount determined by multiplying the total amount of Hg allowances allocated under paragraph (a) of this subsection by the ratio of the baseline heat input of the Hg Budget unit to the total amount of baseline heat input of all Hg Budget units in Kentucky that have a baseline heat input, and rounding to the nearest whole allowance as appropriate.

(5) The cabinet shall submit to the U.S. EPA, in a format prescribed by the U.S. EPA, the Hg allowance allocations determined in accordance with this section by the following deadlines:

- (a) November 17, 2006, for the control periods 2010, 2011,

VOLUME 33, NUMBER 12 – JUNE 1, 2007

2012, 2013, and 2014; and

(b) October 31, ~~2009~~ [2009] and October 31 of each year thereafter, for the control period in the sixth year after the year of the applicable deadline.

LLOYD R. CRESS, Undersecretary
For TERESA J. HILL, Secretary
APPROVED BY AGENCY: April 12, 2007
FILED WITH LRC: April 13, 2007 at 10 a.m.
CONTACT PERSON: 803 Schenkel Lane, Frankfort, Kentucky
40601, phone (502) 573-3382, fax (502) 573-3787, email christopher.hall@ky.gov.

TRANSPORTATION CABINET
Department of Highways
Division of Maintenance
(As Amended at ARRS, May 8, 2007)

603 KAR 4:045. Cultural and recreational supplemental guide signs and boundary signs.

RELATES TO: KRS 177.037, 189.337, 23 C.F.R. Subpart F
STATUTORY AUTHORITY: KRS 177.037, 189.337(2), 23 U.S.C. 162

NECESSITY, FUNCTION, AND CONFORMITY: KRS 189.337(2) and 177.037 authorize the Transportation Cabinet to promulgate standards and specifications for uniform system of traffic control devices. This administrative regulation sets forth standards to be used in the erection and maintenance of cultural and recreational supplemental guide signs and boundary signs.

Section 1. Definitions. (1) "Boundary" means the official beginning or end of any political subdivision, national scenic byway that is recognized by a state or national publication including but not limited to maps and getaway guides.

(2) "Boundary sign" means a sign placed on or off right-of-way that marks the boundaries of a city, town, community, unincorporated urban place, or national scenic byway ~~and~~ ~~—A boundary sign for a city or an unincorporated urban place~~ [places] may include events or accomplishments important to that area and may also honor the birthplace of a person important to that area.

(3) "Clear zone" means the area between the edge of the driving-lane of a public road and an imaginary line running parallel to the road a certain distance from the edge of the traveled way as specified by the AASHTO Roadside Design Guide.

(4) "Cover" means a protective shield over a cultural and recreational supplemental guide sign which prohibits viewing of the sign.

(5) "Cultural and recreational supplemental guide sign ~~panel~~" means an official sign placed within the highway right-of-way with one (1) attraction message ~~[space for one (1) or more individual signs to be attached to it]~~.

(6) "Cultural or recreational" means a public or private activity which provides a tourist attraction, cultural or recreational activity to the traveling public.

(7) "Cultural or recreational activity" means a cultural, historical, recreational, agricultural, educational or entertainment activity.

(8) "Department" is defined by KRS 189.010(1).

(9) "Eligibility distance" means the distance from the location of the entrance driveway of the activity to the point where the information panel ~~[directional sign]~~ is located to the entrance driveway to the activity.

(10) "Illegal sign" means an advertising device which has been determined by the Transportation Cabinet to be illegal according to the provisions of 603 KAR 3:080.

(11) "Information panel" means one (1) to a maximum of four (4) cultural and recreational guide signs.

(12) "Intersection" is defined by KRS 189.010(4).

(13) ~~(12)~~ "Interstate or parkway" means a highway that has fully-controlled access and is part of the National Interstate and Defense System of Highways or is now, or once was, a toll road.

(14) ~~(13)~~ "MUTCD" means the Federal Highway Administration's "Manual on Uniform Traffic Control Devices" incorporated by

reference in 603 KAR 5:050.

~~(15)~~ ~~(14)~~ "Public road" means all state-maintained roads other than interstate and parkways.

~~(16)~~ ~~(15)~~ "Ramp" means the on- or off-access road from an interstate highway or parkway to or from the first public road.

~~(16)~~ ~~"Information panel" means one (1) to a maximum of four (4) cultural and recreational guide signs.~~

~~(17)~~ ~~(16)~~ "Temporary agritourism site" means a seasonal, agricultural-related tourism activity held on a working farm.

~~(18)~~ ~~(17)~~ "Trailblazing" means to provide directional guidance to a particular cultural or recreational site from other highways in the vicinity.

Section 2. General Provisions. The Department of Highways shall control the erection and maintenance of cultural and recreational supplemental guide signs in accordance with the MUTCD and this administrative regulation.

Section 3. Applications and Contracts for Cultural and Recreational Supplemental Guide Signs. (1) An application for cultural and recreational supplemental guide signs shall be made to the Department of Highways by the city or community preparing the sign-age program.

(2) An application for temporary agritourism sties shall be approved by the Kentucky Department of Agriculture pursuant to 302 KAR 39:010.

Section 4. Information Panels for Cultural and Recreational Supplemental Guide Signs. (1) General requirements for information panels.

(a) The information panels shall be located to:

1. Take advantage of natural terrain;
2. Have the least impact on the scenic environment; and
3. Avoid visual conflict with other signs within the highway right-of-way.

(b) Information panels for cultural and recreational supplemental guide signs shall not be erected:

1. On interstates or parkways;
2. On the on ramp or off ramp of an interstate or parkway;
3. Where there is insufficient space to locate both other traffic control devices and the information panels; or
4. So that the traffic is directed onto an interstate or parkway.

(c) Unprotected information panel supports located within the clear zone shall be of a breakaway design.

(d) An information panel may be located laterally outside the normal longitudinal alignment of other traffic control signs, but shall be erected within the highway right-of-way.

(e) The location of any other traffic control device shall at all times take precedence over the location of an information panel.

(2) Intersection approach information panels.

(a) Information panels may be erected on the approach to an intersection on a public road.

(b) Except as provided in paragraph (g) of this subsection, each intersection approach information panel shall be located at least 200 feet from the intersection.

(c) Except as provided in paragraph (g) of this subsection, an intersection approach information panel shall be spaced at least 200 feet from any other traffic control device including another intersection approach information panel.

(d) A separate information panel shall be installed for each of the directions of traffic on an approach to an intersection at which cultural and recreational supplemental guide signs will be placed for the identification of cultural and recreational activities. The directions of traffic are the following:

1. A left turn;
2. A right turn; and
3. No turn, if the activity or attraction ~~[business]~~ is located ahead and if allowed by the provisions set forth in Section 6 of this administrative regulation.

(e) In the direction of traffic, the order of placement for separate information panels shall be for facilities to the left, to the right and straight ahead.

(f) If the AHEAD legend ~~[sign]~~ is used pursuant to the provisions of Section 6 of this administrative regulation, an attempt shall

VOLUME 33, NUMBER 12 – JUNE 1, 2007

be made to locate it to the far right corner of the intersection, but it shall not obstruct the driver's critical viewing of other traffic control devices.

(g) The spacing requirements set forth in paragraphs (b) and (c) of this subsection may be waived by the State Highway Engineer's Office if, based on sound engineering judgment, it is determined that the intersection can safely accommodate the reduced spacing.

Section 5. Cultural and Recreational Supplemental Guide Sign Design and Composition. (1) Each cultural and recreational supplemental guide sign shall:

- (a) Be rectangular in shape;
- (b) Have a white legend and border on a brown background;
- (c) Have reflective legends, arrows, backgrounds and borders;

and

(d) Contain the name of the attraction [business] in not more than two (2) lines of legend which shall not include promotional advertising.

(2) Each cultural and recreational supplemental guide sign on an intersection approach information panel shall have:

(a) A separate directional arrow as set forth in Section 2D-8 of the MUTCD;

(b) The distance to the activity or attraction [business] may be shown beneath the arrow;

(c) Arrows pointing to the right at the extreme right of the cultural and recreational supplemental guide sign; and

(d) Arrows pointing to the left or up at the extreme left of the cultural and recreational supplemental guide sign.

(3) Advance information panels.

(a) Advance information panels may be installed only in situations where sight distance, intersection vehicle maneuvers, or other vehicle operation characteristics require advance notification of the attraction to reduce vehicle conflicts and improve highway safety;

(b) The last of the advance information panels to be driven past shall be located at least one-half (1/2) mile (eight-tenths (.08) kilometers) from the intersection;

~~(c)(a)~~ The arrangement of the cultural and recreational supplemental guide signs on the advance information panel shall be the same as the arrangement on the intersection information panel except the directional arrows and distance shall be omitted.

~~(d)(b)~~ The appropriate legend "NEXT RIGHT", "NEXT LEFT", or "AHEAD" in letters of the same size as legends shall be placed on the ~~advance information panels above the~~ cultural and recreational supplemental guide sign.

~~(e)(c)~~ The legend "RIGHT X MILE", "LEFT X KILOMETERS", or similarly worded legend may be used if there are intervening minor roads.

(4) There shall not be more than four (4) cultural and recreational supplemental guide signs installed on a single information panel.

(5) Cultural and recreational supplemental guide signs shall be arranged vertically on the information panels. Information panels shall be located so that the right turn signs are closer to the intersection. If no more than four (4) cultural and recreational supplemental guide signs are to be installed on an ~~approach to an~~ intersection approach information panel, the cultural and recreational supplemental guide signs may be combined on the same information panel with the cultural and recreational supplemental guide sign for left turns placed above the cultural and recreational supplemental guide signs for right turns.

(6) The standard lettering for cultural and recreational supplemental guide signs shall be in upper case letters of the type provided in "The Standard Alphabets for Highway Signs" book published in 1966 by the U.S. Department of Transportation. Capital letters shall be six (6) inches in height.

(7)(a) A cultural and recreational supplemental guide sign shall not exceed seventy-two (72) inches wide and eighteen (18) inches tall.

(b) The cultural and recreational supplemental guide signs on the same information panel shall all be the same width.

(c) The directional arrow with the distance to the activity or attraction [business] underneath shall not exceed twelve (12)

inches wide and sixteen (16) inches tall.

~~(d) [Cultural and recreational interstate area symbols may be used. These symbols shall be consistent with the MUTCD.~~

~~(e)~~ There shall be a one (1) inch white border surrounding the sign and separating the directional arrow and legend.

~~(g)(f)~~ There shall be a one (1) inch spacing between the border and legend and two (2) inch spacing between lines of legend.

~~(f)(g)~~ The maximum length of the legend shall be five (5) feet and four (4) inches per line.

~~(g)(h)~~ In areas of reduced speeds or forty-five (45) mph or less the size of the cultural and recreational supplemental guide signs and lettering shall be set by the State Highway Engineer's Office, considering the location and terrain of the area.

(8) Clearance of panels should be governed by Sections 2A and 2D of the MUTCD.

Section 6. Ahead Signing. (1) The legend "AHEAD" may be used in lieu of the up directional arrow set forth in Section 5(2)(d) of this administrative regulation.

(2) Signing for cultural and recreational activities in the AHEAD direction shall be considered only under the following circumstances:

(a) There is signing for a similar facility in either the right or left direction;

(b) Through traffic is not the normal traffic pattern; or

(c) The visibility of the establishment is obscured until a motorist is within 800 feet of the entrance.

Section 7. Cultural and Recreational Activity Eligibility. A cultural and recreational activity shall meet the following requirements to qualify for cultural and recreational signing. A cultural and recreational supplemental guide sign shall not be erected until the activity or site has been approved in accordance with this administrative regulation.

(1) The activity shall be open to the general public during regular and reasonable hours, and not by appointment or reservation only.

(2) Approval shall not be granted if the cultural and recreational activity is using an illegal sign at any location in the Commonwealth of Kentucky.

(3) Each activity shall comply with all applicable local, state, and federal statutes and administrative regulations including those prohibiting discrimination based on race, religion, color, sex, age, disability, or national origin. Each activity identified on a cultural and recreational supplemental guide sign shall provide assurance of its conformance with all applicable federal, state or local laws and administrative regulations. If a cultural and recreational activity is in noncompliance of any of these laws or administrative regulations, it may be considered ineligible for participation in this program and its signs may be removed.

(4) The activity shall be conducted in an appropriate building or area. The activity shall not be conducted in a building principally used as a residence unless there is a convenient, separate and well-marked entrance or the cultural and recreational activity is a bed and breakfast lodging. The building or area shall be maintained in a manner consistent with standards generally accepted for that type of attraction [business] or activity.

(5) Any activity which operates on a seasonal basis or is closed in excess of thirty (30) days shall make provisions to remove or cover the activity's sign during the off season. The Transportation Cabinet shall be notified at least thirty (30) days before the opening or closing occurs and proper arrangements made to remove or cover the sign or signs.

(6) A cultural and recreational supplemental guide sign shall not be displayed which would misinform the traveling public or is unsightly, badly faded, or in a state of dilapidation. In these instances, the attraction [business] shall make arrangements for a new cultural and recreational sign.

(7) The Transportation Cabinet shall not be responsible for business lost due to cultural and recreational guide signs or information panels becoming temporarily out of service.

(8) The display of the activity on the cultural and recreational supplemental guide sign ~~on the cultural and recreational structure~~ shall not be considered an endorsement or recommendation by the

VOLUME 33, NUMBER 12 – JUNE 1, 2007

state of Kentucky on behalf of the cultural and recreational activity.

(9) To qualify for a cultural and recreational supplemental guide sign, an attraction [a-business] or activity shall:

(a) Be open a minimum of eight (8) hours a day, five (5) days a week, one (1) of which is a weekend, any time the sign is displayed or receives a waiver from the Transportation-Tourism Interagency Committee using the criteria for the Cultural Heritage Site Certification Program. Temporary agritourism sites shall be open a minimum of six (6) hours a day, five (5) days a week, one (1) of which is a weekend;

(b) Have adequate parking on site or nearby for the facility;

(c) Meets the criteria set forth in the Cultural Heritage Certified Sites Program if it is a permanent activity and a cultural heritage certified site.

(d) Be listed on or eligible for listing on the National Register of Historic Places if the cultural and recreational activity is an historic site; and

(e) Have an eligibility distance of twenty (20) miles or less. If there is a corresponding limited supplemental guide sign, the eligible distance shall be fifty (50) miles or less.

Section 8. Changes. Any changes to the original approved set of signs as it relates to the location or approved activities shall be permitted by the Transportation Cabinet according to criteria set forth in Section 7 of this administrative regulation.

Section 9. Measurements. Measurements taken to determine the qualification for a cultural and recreational supplemental guide sign shall be measured from the center line of all highways. This measure shall be from the entrance driveway of the activity to the point where the directional signs are located.

Section 10. Agritourism. (1) Advertising devices for temporary agritourism sites approved by the Kentucky Department of Agriculture pursuant to 302 KAR 39:010 may be placed off-premise and off the right-of-way on temporary nonbillboards.

(2) There shall be only one (1) sign erected on a road in each direction of travel

(3) The signs may be placed two (2) weeks prior to the start of an event and shall be removed within forty-eight (48) hours after the event is concluded.

Section 11. Permits. The city or local community wishing to install cultural and recreational supplemental guide signs shall apply for an encroachment permit pursuant to 603 KAR 5:150 for each information panel proposed to be erected, changed or removed from the state-owned right-of-way.

Section 12. General Provisions for Boundary Signs. (1) Pursuant to KRS 177.037(3), in making its recommendations regarding the location of a boundary sign, the Transportation Cabinet shall recommend that:

(a) Boundary signs may be placed on the right-of-way if the entire sign is located beyond the clear zone; and

(b) Boundary signs shall be located off the right-of-way if insufficient right-of-way exists to provide a safe and convenient travel-way for motorists and with permission of the property owner. The Transportation Cabinet shall use the AASHTO publication, "The Roadside Design Guide" to make this determination.

(2) Boundary signs shall not be more than 200 square feet and may include a welcome message in addition to any other message as permitted by KRS 177.037. The appropriate Transportation Cabinet, Department of Highways District Office shall advise the person requesting the sign as to the number and size that will properly fit within the right-of-way as necessary for the subject area.

(3) The Transportation Cabinet shall install these signs [sign] upon written request from the official governing body of the city, town, community, unincorporated urban place, or national scenic byway if the recommendations of the Transportation Cabinet, pursuant to subsection (1) of this section, are followed. The Transportation Cabinet shall invoice the appropriate governing body.

(4) If more than one (1) city, town, community, unincorporated urban place, or national scenic byway requests the same general

area for a sign or group of signs, the community shall have preference. These signs shall be limited to one (1) per direction of travel per roadway for entering and one per direction of travel per roadway for leaving the area.

(5) Boundary signs for a city or an unincorporated urban place may include sports accomplishments and other events important to the area and may also honor the birthplace of a person important to the area.

(6) Upon completion of installation of a boundary sign, all existing signs that have been placed by the Transportation Cabinet to commemorate a similar message or events shall be removed, at the expense of the city, town, community, unincorporated urban place, or national scenic byway. If a city, town, community, unincorporated urban place, or national scenic byway has placed signs on or off the right-of-way that are similar in nature, they shall be removed or incorporated into the new signs.

Section 13. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) AASHTO [ASTHMA] publication, "The Roadside Design Guide", (3rd Edition 2006, with updated Chapter 6) [copyright 2002];

(b) TC99-1E "[TC-99-1] Encroachment Permit", (10/01[3/99] Edition), Transportation Cabinet;

(c) "Standard Alphabets for Highway Signs", (2004[1977] Edition), U.S. Department of Transportation;

(d) Cultural Heritage Certified Sites Program Guide"; and

(e) "Standard Highway Signs", (2004[1979] Edition), U.S. Department of Transportation.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Transportation Cabinet, Department of Highways, Division of Traffic Operations, 200 Mero Street, Third Floor [501-High-Street], Frankfort, Kentucky 40622, Monday through Friday, 8 a.m. to 4:30 p.m.

MARC D. WILLIAMS, Commissioner

BILL NIGHBERT, Secretary

APPROVED BY AGENCY: February 12, 2007

FILED WITH LRC: February 13, 2007 at 1 p.m.

CONTACT PERSON: Dana Fugazzi, Staff Attorney III, Transportation Cabinet, Office of Legal Services, 200 Mero Street, Station: W6-21-02, Frankfort, Kentucky 40622, phone (502) 564-7650, fax (502) 564-5238.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Board of Tax Appeals
(As Amended at ARRS, May 8, 2007)

802 KAR 1:010. Hearing procedures.

RELATES TO: KRS Chapter 13B, 131.340, 131.355, 131.365, 131.370, 133.130(10)

STATUTORY AUTHORITY: KRS 13B.170, 131.340(1)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 13B.170 authorizes the Kentucky Board of Tax Appeals to promulgate administrative regulations that are necessary to carry out the provisions of KRS Chapter 13B to establish procedures for appeals to the Kentucky Board of Tax Appeals. This administrative regulation supplements the provisions of KRS 131.310 through 131.370, 133.120(10) and Chapter 13B.

Section 1. Definition. "Board" means Kentucky Board of Tax Appeals

Section 2. Formal Administrative Hearings. In accordance with KRS 131.340 and Chapter 13B, an aggrieved party [A person aggrieved by a final ruling, order, or determination of an agency of state or local government affecting revenue and taxation] may petition the board for a formal hearing in accordance with KRS Chapter 13B.

(1) A petition shall [be]:

(a) Be in writing;

VOLUME 33, NUMBER 12 – JUNE 1, 2007

- (b) ~~Be signed by the petitioner;~~
- (c) ~~Be styled "Petition of Appeal";~~

(d) ~~Be filed in person or mailed by certified mail, return receipt requested, to the Kentucky Board of Tax Appeals and received by the board within thirty (30) days of the date of issuance of the final ruling, order, or determination of the agency of state or county government that is the subject of the appeal; and~~

(e) ~~Contain a statement of all relevant issues of fact and law, along with a copy of any authority relied upon by the party filing the appeal.~~

(2) ~~Filing by facsimile or other electronic means shall not be accepted.~~

(3) ~~[If an appeal originates from a final ruling, order, or determination of a county board of assessment,] The appealing party shall file:~~

(a) ~~An original and four (4) copies of the Petition of Appeal; and~~

(b) ~~Five (5) copies of the county board of assessment's final ruling, order, or determination.~~

(3) ~~[; and~~

(c) ~~Five (5) copies of any authority referenced in subsection 2(e) of this section.~~

(4) ~~If an appeal originates from a final ruling, order, or determination of a state governmental agency, the appealing party shall file:~~

(a) ~~An original and four (4) copies of the Petition of Appeal;~~

(b) ~~Five (5) copies of the final ruling, order, or determination of the agency of the state government; and~~

(c) ~~Five (5) copies of any legal authority referenced pursuant to subsection 2(e) of this section.~~

(5) ~~If a party who appeals fails to comply with any part of subsections (1), (2), (3), or (4) of this section, the board or the hearing officer may:~~

(a) ~~Dismiss the appeal for failure to comply; or~~

(b) ~~If the appeal is timely filed, notify the appealing party of deficiencies and allow the appealing party fifteen (15) days to amend the petition.~~

(5) ~~[(6)] Upon receiving a Petition of Appeal, the Kentucky Board of Tax Appeals shall provide notice to the appellee that a Petition of Appeal has been filed. The appellee or his attorney shall file an entry of appearance within thirty (30) days of the date of the notice.~~

Section 3. Representation in Proceedings Before the Board.

(1) ~~If the appeal is by an individual, the individual whose tax liability is [or individuals who own the property] at issue shall appear and represent himself or herself [themselves] or engage legal counsel to provide representation.~~

(2) ~~An individual who is not an attorney shall not be permitted to represent any other individual or legal entity who is a party to an appeal.~~

(3) ~~In accordance with Supreme Court Rule 3.020, if the appealing party is a corporation, joint venture, partnership, LLC, estate, or any entity other than an individual as identified in Section 3(1) of this administrative regulation, the entity shall be represented by an attorney on all matters before the board, including the filing of the Petition of Appeal.~~

(4) ~~An attorney admitted to practice in another state, but not in the Commonwealth of Kentucky, shall be permitted to represent a party before the board if the attorney complies with Supreme Court Rule 3.030(2).~~

Section 4. Discovery. (1) ~~[A request to obtain discovery shall be filed with the board or hearing officer in conformity with any order pertaining to discovery as the board or hearing officer may issue. If the board or hearing officer has not issued an order setting forth the procedures for request for discovery, then a party may request discovery pursuant to subsection (2) of this section:~~

(2) ~~A request for discovery shall:~~

(a) ~~Specify the type of discovery requested;~~

(b) ~~If applicable, describe in sufficient detail:~~

1. ~~The names and addresses of persons or legal entities from whom discovery is desired;~~

2. ~~The general nature of the documents or other items requested; and~~

3. ~~The location of property subject to discovery; and~~

(c) ~~State the reason discovery is requested;~~

(3) ~~Objections to a discovery request by any other party shall be filed with the board or hearing officer within fifteen (15) days from the date discovery is requested.~~

(4) ~~Discovery may be obtained without prior order of the board or hearing officer pursuant to Kentucky Rules of Civil Procedure 30, 31, 33, 34, and 36, as amended.~~

(2) ~~[by:~~

(a) ~~Oral depositions of individuals or of public or private legal entities;~~

(b) ~~Written interrogatories;~~

(c) ~~Permission to enter upon, inspect, or photograph real property, or to photograph or inspect personal property;~~

(d) ~~Physical or mental examination of a party; or~~

(e) ~~Admissions of a party;~~

(5) ~~The board or hearing officer may deny, limit, or require discovery.~~

(3) ~~[(6)] Sanctions. If a party fails to obey an order regarding discovery, the board or hearing officer may order that the:~~

(a) ~~Matters that the requesting party was seeking to establish through discovery shall be taken as having been established for the purposes of the hearing;~~

(b) ~~Noncomplying party shall be prohibited from introducing related documents or testimony [on matters] at the hearing; or~~

(c) ~~Appeal be dismissed or relief be granted as requested by the opposing party.~~

(4) ~~A response to discovery under subsection (1) of this section shall not be filed with the board unless required by an order of the board or hearing officer.~~

Section 5. Subpoenas. Upon good cause shown, the board or hearing officer shall issue a subpoena to any party upon request, provided that the request for subpoena shall be received by the board or hearing officer at least sixty (60) days prior to the hearing.

Section 6. Prehearing Filings. At least thirty (30) days prior to the hearing, a party shall file with the board or hearing officer the following:

(1) ~~An original and four (4) copies of a prehearing summary that contains [(1) A party shall file with the board or hearing officer an original and four (4) copies of a document containing] the following:~~

(a) ~~A summary of the party's position on any issue of fact in dispute;~~

(b) ~~A summary of the party's position on any issue of law raised by the appeal;~~

(c) ~~A written statement of facts to which the party agrees and any facts which a party does not dispute;~~

(d) ~~A list of the names, addresses, and phone numbers (if known) of all witnesses which the party expects to call to testify as a witness at the hearing; and~~

(e) ~~A copy of all exhibits which the party intends to introduce at the hearing;[~~

(2) ~~A party's prehearing document shall be filed with the board or hearing officer at least thirty (30) days prior to the hearing.~~

(3) ~~Along with the above document, the party shall file:~~

(2) ~~[(a)] Proposed findings of fact and conclusions of law; and~~

(3) ~~[(b)] A proposed final order if the appeal is heard by the board, or a proposed recommended order if the appeal is heard by a hearing officer.~~

Section 7. Briefs. (1) A party shall file with the board or hearing officer any brief required by order of the board or hearing officer. If the board or hearing officer has not issued an [ne] order pertaining to briefs, then a party may file an original and four (4) copies of a brief.

(2) ~~[shall:~~

(a) ~~File an original and four (4) copies of the brief; and~~

(b) ~~Attach to each brief a copy of any legal authorities relied upon by a party;~~

(2) ~~The brief shall contain:~~

(a) ~~A written statement of facts to which the party agrees and any facts which a party does not dispute;~~

VOLUME 33, NUMBER 12 – JUNE 1, 2007

~~(b) A list of the names, addresses, and phone numbers (if known) of all witnesses which the party expects to call as a witness at the hearing;~~

~~(c) A summary of the party's position on any issue of fact in dispute;~~

~~(d) A summary of the party's position on any issue of law raised by the appeal, including a copy of any case, ruling, administrative regulation, or other authority relied upon to support the party's position;~~

~~(e) A copy of all exhibits which the party intends to introduce at the hearing;~~

~~(3) A party's brief shall be filed with the board or hearing officer at least thirty (30) days prior to the hearing;~~

~~(4) A party shall file with a brief;~~

~~(a) Proposed findings of fact and conclusions of law; and~~

~~(b) A proposed final order if the appeal is heard by the board, or a proposed recommended order if the appeal is heard by a hearing officer;~~

~~(5) The board or hearing officer may require a party to file a post-hearing brief or to supplement at any time a brief already filed, to assist in adjudicating the hearing~~

~~(3) [(6)] A brief shall be typewritten or hand printed. A photocopy shall be accepted. A copy of a brief shall be clearly legible and double spaced, except for quotations, on paper eight and one-half (8 1/2) inches wide and eleven (11) inches long, with margins of not less than one (1) inch and a font size of not less than twelve (12) point [font]. A brief shall include a copy of any legal authority relied upon in the brief, unless this requirement is specifically waived by the board or hearing officer.~~

~~Section 8. [7-] Motions, Responsive Pleadings, and Time Computation. (1) A party shall file an original and four (4) copies of all pleadings or motions with the board or hearing officer, along with a copy of any supporting document or authority relied upon by the moving party.~~

~~(2) Any other party affected by a motion or pleading may file an original and four (4) copies of a response to the motion or pleading within fifteen (15) [calendar] days from the date on which the motion or pleading was originally served upon all parties to the appeal.~~

~~(3) A moving party may file an original and four (4) copies of a reply to another party's response within fifteen (15) [calendar] days from the date the response was served. No other replies or responses shall be filed, unless prior approval is granted by the board or hearing officer.~~

~~Section 9. [8-] Notice of Motions and Pleadings. Any party who files a motion or pleading [pursuant to Sections (2), (3), (4), (5), or (6) of this administrative regulation, or pursuant to an order of the board or hearing officer,] shall serve all other parties to the appeal a copy of the motion or pleading, along with any authority relied upon by the moving party. A motion or pleading [Notice] shall be accompanied by a certification that a copy has been served on each interested party.~~

~~Section 10. [9-] Summary Disposition. At any time after a proceeding has begun, a party may move for a summary disposition of the whole or a part of the proceeding, in which event the following procedure shall apply.~~

~~(1) The moving party shall assert that there are no disputed material facts as to one or more of the issues before the board or hearing officer. The moving party shall include in its motion a statement specifying which material facts are undisputed. A material undisputed fact may be submitted to the board or hearing officer through affidavits or responses made by another party to any discovery request [authorized by the board or hearing officer], including answers to interrogatories, admissions, and depositions. Facts stated in the original petition or appeal, as well as any documents or exhibits attached to the petition, may be relied upon as undisputed material facts by the appellee.~~

~~(2) The moving party shall state that any issue before the board or hearing officer for which summary disposition is sought is a matter of legal, and not factual, interpretation. The moving party shall submit a copy of any legal authority which supports the moving party's position on any legal issue before the board or hearing~~

~~officer.~~

~~(3) Within twenty (20) days after a party moves for summary disposition and complies with the requirements set forth in Section 9(1) and (2) of this administrative regulation, any other party may submit to the board or hearing officer:~~

~~(a) An acknowledgment that there are no disputed material facts or any affidavit or response to discovery that shows the material facts to be in dispute [or, if any material fact submitted by the moving party pursuant to Section 9(1) and (2) of this administrative regulation is factually disputed, the other party shall submit any affidavit or response to discovery authorized by the board or hearing officer, including any answer to an interrogatory, admission, or deposition, which controverts any material fact asserted by the moving party to be undisputed]; and~~

~~(b) All legal authorities which support the opposing party's position on any legal issue.~~

~~(4) Failure of a nonmoving party to respond within twenty (20) days to the motion for summary disposition or to request additional time to respond to the motion, shall result in the board or hearing officer assuming there are no factual issues before it to be considered in deciding the legal issues. If the nonmoving party files a response to the motion for summary disposition, the moving party shall have ten (10) days to file a reply to the response.~~

~~(5) The board or hearing officer may grant a motion for summary disposition in whole or in part. If the board or hearing officer grants a summary disposition as to one (1) or more issues, but not all issues, then the remaining issues shall be heard by the board or hearing officer in accordance with this administrative regulation and KRS Chapter 13B.~~

~~Section 11. Time. KRS 446.030 shall apply to computation of time under this administrative regulation. [Formal Administrative Hearings. A person aggrieved by a final ruling, order or determination of an agency of state or county government affecting revenue and taxation, may petition the board for a formal hearing in accordance with KRS Chapter 13B.~~

~~(1) A petition shall be:~~

~~(a) In writing;~~

~~(b) Signed by the petitioner;~~

~~(c) Styled "Petition of Appeal";~~

~~(d) Filed in person at 128 Brighton Park Boulevard, Frankfort, Kentucky or mailed to the board's principal office at 128 Brighton Park Boulevard, Frankfort, Kentucky 40602-2120;~~

~~(e) Contain a brief statement of the law and facts in issue; and~~

~~(f) Contain the appellant's position as to the law and facts.~~

~~(2) Filings by facsimile or other electronic means shall not be accepted.~~

~~(3) If an appeal originates from a final ruling, order, or determination of a county board of assessment, the appellant shall file:~~

~~(a) An original and two (2) copies of the petition of appeal; and~~

~~(b) Three (3) copies of the county board of assessments appeals' final ruling, order or determination.~~

~~(4) If an appeal originates from a final ruling, order, or determination of a state government agency, the appellant shall:~~

~~(a) File an original and four (4) copies of the petition of appeal; and~~

~~(b) File five (5) copies of the state government agency's final ruling, order, or determination.~~

~~(5) If an appellant fails to comply with subsection 1(c) or (d) of this section, notice of noncompliance shall be given by the board to the appellant.~~

~~Section 2. Representation in Proceedings Before the Board.~~

~~(1) If a party is represented by an attorney in proceedings before the board, the attorney shall file an entry of appearance within thirty (30) days after the date on which the petition of appeals is filed. An appellant's attorney shall not be required to file an entry of appearance if he files the petition on behalf of the appellant.~~

~~(2) An attorney admitted to practice in another state, but not in the Commonwealth of Kentucky, shall be permitted to represent a party before the board if the attorney complies with Supreme Court Rule 3.030(2).~~

~~(3) An individual who is not an attorney shall not represent any other individual, corporation, trust, estate, or partnership.~~

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Section 3. Discovery. (1) A request to obtain discovery shall be filed with the board or hearing officer.

(2) The request shall:

- (a) Specify the type of discovery requested;
- (b) Where applicable, describe in sufficient detail:
 1. Names and addresses of persons or items;
 2. Documents, other items, or places; and
- (c) State the reason discovery is requested.

(3) The board or hearing officer may deny, limit, or require discovery.

(4) Discovery may be obtained by:

- (a) Written or oral depositions;
- (b) Interrogatories;
- (c) Production or inspection of documents or things;
- (d) Permission to photograph, or enter upon land or other property; or
- (e) Physical or mental examination.

(5) Sanctions. If a party fails to obey an order to provide or permit discovery, the hearing officer may order that the:

- (a) Matters the complying party was seeking to prove through discovery shall be taken as established for the purposes of the hearing; and
- (b) Noncomplying party shall be prohibited from introducing related matters at the hearing.

Section 4. Briefs. (1) A party shall file with the board or hearing officer when permitted:

- (a) An original and three (3) copies of a brief; and
- (b) Attach to each brief a copy of any cited authority from a state other than Kentucky.

(2) A party shall file with the brief:

- (a) Proposed findings of fact, conclusions of law; and
- (b) The final order if the appeal is heard by the board, or recommended order, if the appeal is heard by the hearing officer.

(3) A brief shall be typewritten or printed. A photocopy will be accepted. A copy of a brief shall be clearly legible and double spaced, except for quotations, on paper eight and one half (8 1/2) inches wide and eleven (11) inches long, with margins of not less than one (1) inch and a font size of not less than twelve (12) point font.

Section 5. Motions, Responsive Pleadings, and Time Computation. (1) Except as provided in Section 1 of this administrative regulation, a party shall file an original and three (3) copies of a pleading or motion with the board. A pleading or motion, except the original petition of appeal, shall be accompanied by a certification that a copy have been served on each interested party.

(2) A party shall file an original and three (3) copies of a response to a motion within ten (10) days from the date on which the motion is served.

(3) A movant shall file an original and three (3) copies of a reply to a party's response to his motion within ten (10) days from the date on which the response is served.

(4) KRS 446.030 shall apply to computation of time.]

BILL BEAM, Jr., Executive Director
CHRISTOPHER LILLY, Commissioner
TERESA J. HILL, Secretary

APPROVED BY AGENCY:

FILED WITH LRC: December 15, 2006 at 9 a.m.

CONTACT PERSON: Bill Beam, Jr., Kentucky Board of Tax Appeals, 128 Brighton Park Boulevard, Frankfort, Kentucky 40602-2120, phone (502) 573-4316.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
(As Amended at ARRS, May 8, 2007)

815 KAR 4:010. Annual inspection of passenger elevators.

RELATES TO: KRS 198B.400, 198B.470, 198B.480, [198B.490,] 198B.500, 198B.510, 198B.540

STATUTORY AUTHORITY: KRS 198B.060(18), 198B.490
NECESSITY, FUNCTION, AND CONFORMITY: KRS 198B.490 requires the executive director [commissioner] to promulgate an administrative regulation governing the safety and inspection of passenger elevators as defined by KRS 198B.400(1) and (2). This administrative regulation establishes the safety standards governing the annual inspection of passenger elevators.

Section 1. Annual Inspection of Passenger Elevators and Escalators. (1) Except as provided in subsection (2) of this section, an annual inspection of a passenger elevator or escalator shall be conducted in accordance with the following standards:

(a) "Safety Code for Elevators and Escalators", ASME A17.1-2004 [only] sections 10, 12, and 19 in their entirety with the exception of rules 2.2.4.3, 2.19.2, 2.19.3.2(A)(3), 2.26.2.33, 2.27.3.2.6, 2.27.3.3.7, 3.17.3, 3.26.10, 6.1.3.3.9, and 8.6.5.8 for existing elevators and escalators, [in the following code edition and addenda's ASME A17.1-1996, including A17.1a-1997 Addenda, ASME A17.1b-1998 Addenda, and ASME A17.1c-1999 Addenda,] or the edition of A17.1 Safety Code in its entirety that the elevator was originally permitted under;

(b) "Inspectors' [Inspector's] Manual for Hydraulic Elevators", ASME A17.2-1997[and ASME A17.2.2a-1998 Addenda];

(c) "Inspectors' [Inspector's] Manual for Escalators and Moving Walks", ASME A17.2.3-1998[, and ASME A17.2.3a-2000 Addenda];

(d) "Safety Code for Existing Elevators and Escalators", ASME A17.3-2002 [1996, and ASME A17.3a-2000 Addenda];

(e) "Guide for Emergency Personnel", ASME A17.4-1999;

(f) "Elevator and Escalator Electrical Equipment", ASME A17.5-1996; [and]

(g) "Safety Standard [Standards] for Conveyors and Related Equipment", ASME B20.1-1996; and

(h) "Safety Standard for Platform Lifts and Stairway Chairlifts", ASME A18.1-2003 in its entirety with the exception of rules 5.7.1 and 10.1.2.1.

(2) Compliance with a later edition of the standards required by subsection (1) of this section shall be deemed equivalent and may be used by the owner or contractor in lieu of the edition specified.

Section 2. Inspection Fees. (1) The annual inspection fees for the issuance of a certificate of operation shall be as established in this subsection. [follows:]

(a) The wheelchair and stair chair lift inspection fee shall be [-] [shall be] seventy-five (75) dollars.

(b) The dumbwaiter inspection fee, if [-, where] under contract to inspect, shall be [-, shall be] eighty-five (85) dollars.

(c) The limited-use limited-access (Lula) elevator inspection fee shall be [-] [shall be] \$100.

(d) The escalator and moving walk inspection fee shall be [-] [shall be] \$120.

(e) The hydraulic elevator inspection fee shall be [-] [shall be] \$100.

(f) Inspection of traction elevators, The fee for [shall be as follows]:

1. The first ten (10) floors shall be [-] [shall be] \$100; and [-]

2. Each additional ten (10) floors, or portion thereof, is an additional [shall be increased by] ten (10) dollars.

(2) The fee for an inspection conducted at the request of the owner or user of a unit, other than an inspection made pursuant to a permit or annual inspection, shall be based on the same fee schedule as an annual inspection in subsection (1) of this section.

Section 3. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) "Safety Code for Elevators and Escalators", ASME A17.1-2004 Sections 10, 12, and 19 [1996, issued December 1996];

(b) [ASME A17.1a-1997 Addenda, issued February 27, 1998;

(c) ASME A17.1b-1998 Addenda, issued February 19, 1999;

(d) ASME A17.1c-1999 Addenda, issued June 30, 1999;

(e) Inspector's Manual for Hydraulic Elevators, ASME A17.2-1997[, issued December 31, 1997];

(c) "Inspectors' [(f) ASME A17.2.2a-1998 Addenda, issued February 5, 1999;

VOLUME 33, NUMBER 12 – JUNE 1, 2007

(g) [~~Inspector's~~] Manual for Escalators and Moving Walks", ASME A17.2.3-1998 [~~, issued February 26, 1999~~];

(d) [~~(h)~~] ASME A17.2.3a-2000 Addenda, issued August 10, 2000;

(~~h~~) "Safety Code for Existing Elevators and Escalators", ASME A17.3-2002 [1996, issued February 20, 1997];

(e) [~~(f)~~] ASME A17.3a-2000 Addenda, issued February 20, 2000;

(~~h~~) "Guide for Emergency Personnel", ASME A17.4-1999, issued December 20, 1999;

(f) [~~(h)~~] "Elevator and Escalator Electrical Equipment", ASME A17.5-1996 [~~, issued July 1996~~];

(g) "Safety Standard for Conveyors and Related Equipment", ASME B20.1-1996; and

(h) "Safety Standard for Platform Lifts and Stairway Chairlifts", ASME A18.1-2003; and

(~~h~~) [~~(m)~~] [~~Safety Standards for Conveyors and Related Equipment~~], ASME B20.1-1996, issued May 23, 1997].

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Office [~~Department~~] of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, Monday through Friday, 8 a.m. to 4:30 p.m.

(3) This material may also be obtained from the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, New York 10017.

FLOYD VAN COOK, Executive Director
TIMOTHY J. LEDONNE, Commissioner
LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary
APPROVED BY AGENCY: March 12, 2007
FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David L. Reichert, General Counsel,
Office of Housing, Buildings and Construction, 101 Sea Hero
Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502)
573-0394 Ext. 144, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Building Code Enforcement
(As Amended at ARRS, May 8, 2007)

815 KAR 7:120. Kentucky Building Code[~~/2002~~].

RELATES TO: KRS 198B.010, 198B.040, 198B.050,
198B.060, 198B.080, 198B.110, 198B.260, 198B.990

STATUTORY AUTHORITY: KRS 198B.040(7), 198B.050

NECESSITY, FUNCTION, AND CONFORMITY: KRS 198B.040(7) requires the Kentucky Board of Housing, Buildings and Construction to adopt and promulgate a mandatory uniform statewide building code, based on a model code, which establishes standards for construction of buildings in the state. This administrative regulation establishes the Kentucky Building Code's general provisions.

Section 1. Definitions. (1) "Board of Housing" or "board" means the Kentucky Board of Housing, Buildings and Construction.

(2) "Building" is defined by KRS 198B.010(4).

(3) "Executive director[~~Commissioner~~]" is defined by KRS 198B.010(9).

(4) [~~"Office~~ [~~Department~~]] is defined by KRS 198B.010(11).

(5) "Farm" means property located outside the corporate limits of a municipality on at least ten (10) acres and having a bona fide agricultural or horticultural use as defined by KRS 132.010(9) and (10) and qualified by and registered with the property valuation administrator in that county.

(5) [(6)] "Fire Code Official" means the State Fire Marshal, fire chief, or other enforcement officer designated by the appointing authority of the jurisdiction for the enforcement of the provisions of KRS 227.300 and the Kentucky Standards of Safety [~~(Fire Prevention Code)~~] as established [~~set forth~~] in 815 KAR 10:060 [Chapter 10].

(6) [(7)] "Industrialized building system" or "building system" is defined in KRS 198B.010(16).

(7) [(8)] "KBC" means the Kentucky Building Code as established in this administrative regulation.

(8) [(9)] "Kentucky Residential Code[~~/2002~~]" means the International Residential Code, 2006 [2000], as amended for application in Kentucky by 815 KAR 7:125.

(9) [(10)] "Kentucky Standards of Safety" means the requirements [~~administrative regulations~~] established in 815 KAR 10:060 [Chapter 10], which serve as the fire prevention code for existing buildings as well as a supplement to this code.

(10) [(11)] "KRS" means the Kentucky Revised Statutes.

(12) "Manufactured home" is defined by KRS 198B.010(23) and 227.550(7).

(11) [(13)] "Modular home" means an industrialized building system, which is designed to be used as a residence and which is not a manufactured or mobile home.

(12) "Office" is defined by KRS 198B.010(11)

(13) [(14)] "Ordinary repair" is defined by KRS 198B.010(19).

(14) [(15)] "Single-family dwelling" or "one (1) family dwelling" means a single unit providing complete independent living facilities for one (1) or more persons including permanent provisions for living, sleeping, eating, cooking, and sanitation, and which shall not be connected to any other unit or building.

(15) [(16)] "Townhouse" means a single-family dwelling unit constructed in a group of three (3) or more attached units separated by property lines in which each unit extends from foundation to roof and with open space on at least two (2) sides.

(16) [(17)] "Two (2) family dwelling" means a building containing not more than two (2) dwelling units which are connected.

Section 2. Administration and Enforcement of the Building Code. (1) [(a)] Notwithstanding the requirements of the International Building Code 2006 [2000], the Kentucky changes established [~~set forth~~] in the 2007 [2003] Kentucky Building Code [Supplement] shall be mandatory and shall supersede [~~supersede~~] any conflicting provision of the international code.

(2) (a) [(b) 1-] Except as provided in paragraph (b) of this subsection [~~subparagraph 2 of this paragraph~~] and as superseded [~~superseded~~] by the provisions of this administrative regulation and [or] the 2007 [2003] Kentucky Building Code [Supplement], the International Building Code 2006 [2000], [First Edition, Chapters 1 through 35] shall be the mandatory state building code for Kentucky for all buildings.

(b) [2-] One (1) and two (2) family dwellings and townhouses shall be governed by 815 KAR 7:125.

[(2) The International Building Code shall be amended as set forth in the 2003 Kentucky Building Code Supplement.]

Section 3. State Plan Review and Inspection Fees. The fees required by this section shall apply for plan review and inspection by the office [~~department~~].

(1) Fast track elective.

(a) A request for expedited site and foundation approval of one (1) week or less, prior to full review of the complete set of construction documents, shall be accompanied by the fee required by Table 121.3.1 in subsection (3) of this section, plus an additional fifty (50) percent of the basic plan review or inspection fee.

(b) The additional fifty (50) percent fee shall not be less than \$400 and not more than \$3,000.

(c) The entire fee shall be paid with [~~at the time of~~] the initial plan submission.

(2) New buildings.

(a) The office's [~~departmental~~] inspection fees shall be calculated by:

1. Multiplying the total building area under construction by the cost per square foot of each occupancy type as listed in subsection (3) of this section; and

2. Computing the square footage by the outside dimensions of the building.

(b) The fee for buildings with multiple or mixed occupancies may be calculated using the cost per square foot multiplier of the predominant use.

(3) Table 121.3.1, Basic Office Fee Schedule. The basic plan

VOLUME 33, NUMBER 12 – JUNE 1, 2007

review or inspection fee shall be:

- (a) Assembly occupancies, eight and one-half (8.5) cents;
 - (b) Business occupancies, seven and one-half (7.5) cents;
 - (c) Day care centers, seven and one-half (7.5) cents;
 - (d) Educational occupancies, seven and one-half (7.5) cents;
 - (e) Frozen food plants, six and one-half (6.5) cents;
 - (f) High hazard occupancies, seven and one-half (7.5) cents;
 - (g) Industrial factories, six and one-quarter (6.25) cents;
 - (h) Institutional occupancies, eight and one-half (8.5) cents;
 - (i) Mercantile occupancies, seven and one-half (7.5) cents;
 - (j) Residential occupancies, seven and one-half (7.5) cents;
 - (k) Warehouses, five and one-half (5.5) cents; **or**
 - (l) All other nonresidential, six and one-half (6.5) cents.
- (4) Additions to existing buildings.

(a) Plan review fees for additions to existing buildings, which shall not require the entire building to conform to the Kentucky Building Code, shall be calculated in accordance with the schedule listed in subsection (3) of this section by the measurement of the square footage of the addition, as determined by the outside dimensions of the addition.

(b) The minimum fee for review of plans under this subsection shall be \$200.

(5) Change in use.

(a) Plan review fees for existing buildings in which the use group or occupancy type is changed shall be calculated in accordance with the schedule listed in subsection (3) of this section by using the total square footage of the entire building or structure under the new occupancy type as determined by the outside dimensions.

(b) The minimum fee for review of plans under this subsection shall be \$200.

(6) Alterations and repairs.

(a) Plan review fees for alterations and repairs not otherwise covered by this fee schedule shall be calculated by using the lower result of:

- 1. Multiplying the cost for the alterations or repairs by 0.0025; or
- 2. Multiplying the total area being altered or repaired by the cost per square foot of each occupancy type listed in the schedule in subsection (3) of this section.

(b) The total square footage shall be determined by the outside dimensions of the area being altered or repaired.

(c) The minimum fee for review of plans under this subsection shall be \$200.

(7) Specialized fees. In addition to the fees listed in subsections (1) through (6) of this section, the following fees shall be applied for the specialized plan reviews listed in this subsection:

(a) Table 121.3.9, Automatic Sprinkler Review Fee Schedule:

1. An inspection of four (4) through 200 sprinklers shall be a fee of \$150;

2. An inspection of 201 through 300 sprinklers shall be a fee of \$175;

3. An inspection of 301 through 400 sprinklers shall be a fee of \$210;

4. An inspection of 401 through 750 sprinklers shall be a fee of \$250; and

5. An inspection of over 750 sprinklers shall be a fee of \$250 plus twenty (20) cents per sprinkler over 750 [Four (4)-200 sprinklers, \$150;

2-201-300 sprinklers, \$175;

3-301-400 sprinklers, \$210;

4-401-750 sprinklers, \$250;

5-Over 750 sprinklers, \$250 plus twenty (20) cents per sprinkler over 750].

(b) Fire detection system review fee:

1. Zero to 20,000 square feet shall be \$150;

2. Over 20,000 square feet shall be \$150 plus twenty (20) dollars for each additional 10,000 square feet in excess of 20,000 square feet.

(c) **The standpipe plan review fee shall be \$150. The** [Standpipe plan review fee: \$150 (combination stand pipe and riser plans shall be reviewed under the automatic sprinkler review fee schedule)].

(d) Carbon dioxide suppression system review fee:

1. One (1) ~~through~~ [te] 200 pounds of agent shall be \$150; **and**
2. Over 200 pounds of agent shall be \$150 plus two (2) cents per pound in excess of 200 pounds.

(e) Clean agent suppression system review fee:

1.a. Up to thirty-five (35) pounds of agent shall be \$150; **and**
b. Over thirty-five (35) pounds shall be \$150 plus six (6) cents per pound in excess of thirty-five (35) pounds.

2. The fee for gaseous systems shall be five (5) cents per cubic foot and not less than \$150.

(f) Foam suppression system review fee.

1. The fee for review of a foam suppression system shall be:

4-] fifty (50) cents per gallon of foam concentrate if the system is not part of an automatic sprinkler system.

2. Foam suppression system plans that are submitted as part of an automatic sprinkler system shall be reviewed under the automatic sprinkler review fee schedule.

3. The fee for review of plans under this section shall not be less than \$150 or more than \$1,500.

(g) **The** commercial range hood review fee **shall be:]** \$150 per hood.

(h) Dry chemical systems review fee (except range hoods).

The fee for review of:

1. One (1) ~~through~~ [te] thirty (30) pounds of agent shall be \$150; **and**

2. Over thirty (30) pounds of agent shall be \$150 plus twenty-five (25) cents per pound in excess of thirty (30) pounds.

(i) **The** flammable, combustible liquids or gases, and hazardous materials plan review fee **shall be:]** \$100 for the first tank, plus fifty (50) dollars for each additional tank and \$100 per piping system including valves, fill pipes, vents, leak detection, spill and overflow detection, cathodic protection or associated components.

(j) Boiler and unfired pressure vessel fees. Plan review fees of boiler and unfired pressure vessel installations shall be in accordance with 815 KAR 15:027.

Section 4. General. All plans shall be designed and submitted to conform to this administrative regulation.

Section 5. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) "International Building Code, 2006 [2000]", First Edition, International Code Council, Inc.; **and** [and]

(b) "2007 [2003] Kentucky Building Code" [; and]

[(c) SEAOK Document GB-03-01, October 2003.]

(2) [Supplement", as amended April, 2005.

(2) The International Building Code is published by the International Code Council, Inc., 5203 Leesburg Pike, Suite 708, Falls Church, Virginia 22041-3401.

(3) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Kentucky Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, Monday through Friday, 8 a.m. to 4:30 p.m.

FLOYD VAN COOK, Executive Director

TIMOTHY J. LEDOONE, Commissioner

LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary

APPROVED BY AGENCY: March 12, 2007

FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David L. Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502) 573-0394 Ext. 144, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings And Construction
(As Amended at ARRS, May 8, 2007)

815 KAR 10:060. Kentucky standards of safety.

RELATES TO: KRS 198B.060, 198B.062, 198B.070,

VOLUME 33, NUMBER 12 – JUNE 1, 2007

198B.080, 198B.090, 198B.110, 198B.120, 198B.130, 227B.300, 227.320, 227.330, 227.990

STATUTORY AUTHORITY: KRS 227.300(1)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 227.300(1) requires the executive director to promulgate an administrative regulation establishing the Kentucky Standards of Safety, which shall provide a reasonable degree of safety for human life against the exigencies of fire and panic and insuring against fire loss. This administrative regulation establishes the Kentucky Standards of Safety and supplements the Kentucky Building Code, promulgated as 815 KAR 7:120, in matters of fire safety.

Section 1. Definitions. (1) "Accepted" means that all deficiencies communicated, in writing, to the owner have been satisfactorily corrected.

(2) "Distinct fire hazard" means a condition which poses a threat to life or property, including a condition [which is] likely to unreasonably inhibit escape from danger [in the event] of fire or explosion, because the property, or the practice or method of construction or operation, condition, or processes or materials being used do not afford adequate protection, since:

(a) A fire, explosion, or asphyxiation is likely to occur; or

(b) It may provide a ready fuel supply to augment the spread or intensity of a fire or explosion.

(3) "NFPA" means the National Fire Protection Association.

(4) "NICET" means the National Institute for Certification of Engineering Technologies.

Section 2. Scope. (1) Applicability. This administrative regulation shall apply to all property except one (1) and two (2) -family dwellings.

(2) Enforcement. This administrative regulation shall be enforced as follows:

(a) State Fire Marshal. The State Fire Marshal shall have primary jurisdiction over all property, unless a local government has established a fire inspection program by ordinance adopting this administrative regulation pursuant to KRS 227.320; or

(b) Local fire chief.

1. Except as provided in subparagraph 2 of this paragraph, the local official designated by ordinance to operate a fire inspection program pursuant to KRS 227.320 shall have primary jurisdiction for the enforcement of all property within the local governmental boundary.

2. The State Fire Marshal shall have exclusive jurisdiction over state-owned property and primary jurisdiction for code compliance for health care facilities and other facilities licensed by the Kentucky Cabinet for Health and Family Services.

Section 3. Existing Buildings and Conditions. (1) Buildings and conditions approved in accordance with [under] the Kentucky Building Code which is incorporated by reference in 815 KAR 7:120[,] shall apply as provided in this subsection:

(a) Minimum or maximum standard.

1. [Mini/maxi standard.] The standards for the construction of a building constructed pursuant to the Kentucky Building Code in effect at the time of construction, and for which there has been issued a lawful certificate of occupancy, shall supersede different construction standards regarding the requirements for egress facilities, fire protection and built-in fire protection equipment established in [of] this administrative regulation or conflicting local ordinances.

2. Methods of construction that meet the requirements of the Kentucky Building Code shall not be deemed a distinct fire hazard.

(b) New construction.

1. The design and construction of a new building to provide egress facilities, fire protection, and built-in fire protection equipment shall be controlled by the Kentucky Building Code.

2. An alteration, addition, or change to the structure which is within the scope of the building code shall be made in accordance with the applicable code.

(c) Change of use. It shall be unlawful to make a change in the use of a building or portion thereof which has the potential to create a greater hazard to the public because of increased structural or fire loading, or inadequate exits for the number of occupants,

without prior approval from the authority determined under Section 2 of this administrative regulation.

(2) Buildings and conditions approved under other codes.

(a) 1. Pre-KBC buildings. A building, facility, or portion thereof, which was constructed and approved prior to the effective dates of the Kentucky Building Code and this administrative regulation, shall be maintained as previously permitted.

2. A change to the construction of the building in excess of that required by the codes at the time of construction shall not be required if the building is used and maintained as originally approved.

(b) Previous fire code. A building, facility, or portion thereof, which was inspected and approved or accepted pursuant to the 1996 Kentucky Fire Prevention Code shall:

1. Be maintained as previously approved or accepted; and

2. Not be required to make a modification or change if it is maintained and used as previously accepted or approved.

(3) Inspection compliance [Certificate of use]. If the State Fire Marshal or local fire chief finds an existing building or facility to be in substantial compliance with this administrative regulation, the State Fire Marshal or local fire chief shall indicate so in writing [without a violation of an order of the building official or State Fire Marshal pending, he may issue a certificate authorizing the legal use of the building or facility, if the certificate was required at the time of construction. The use may continue without change if it is used and maintained as approved].

(4) Hazardous materials, conditions and buildings.

(a) If the State Fire Marshal or local fire chief determines that a distinct fire hazard exists, the fire hazard shall [he shall cause the fire hazard to] be remedied so as to render the property reasonably safe.

(b) The State Fire Marshal shall use the standards specified in this paragraph to identify and to order the correction of a distinct fire hazard and shall act in accordance with the procedures established in KRS Chapter 227 and Section 5 of this administrative regulation.

The following shall be applicable, except those specifically-excluded codes and references:

1. NFPA 1, Uniform Fire Code, 2006 edition, and the NFPA referenced standards included in NFPA 1. The following codes and references shall be excluded from NFPA 1 for purposes of this administrative regulation:

a. NFPA 402, Guide for Aircraft Rescue and Fire Fighting Operation, 2002 edition;

b. NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, 2002 edition;

c. NFPA 1031, Standard for Profession Qualifications for Fire Inspectors and Plan Examiner, 2003 edition;

d. NFPA 5000, Building Construction and Safety Code, 2006, edition;

e. Code reference 13.3.2.24.2, High Rise Buildings; [and]

f. Code reference 13.3.2.6.1, Existing Assembly Occupancies; and

g. Code reference 13.6.1.2, Portable Extinguishers, if [where] required, is modified to exclude the provisions for installation of portable extinguishers in the occupancies listed in Table 13.6.1.2. Portable extinguishers shall be installed as required in the occupancy chapters of NFPA 101, Life Safety Code, 2006 Edition;[-]

2. NFPA 101, Life Safety Code, 2006 edition, and the NFPA referenced standards included in NFPA 101. The following codes and references shall be excluded from NFPA 101 for purposes of this administrative regulation:

a. NFPA 5000, Building Construction and Safety Code, 2006 edition; and

b. Code reference 13.3.5.1, Extinguishment Requirements;[-]

3. The Kentucky Building Code, which shall apply to a new building and to an alteration, addition, or change of use in accordance with subsection (1) of this section;[-]

4. Superseding provisions. If a provision of this administrative regulation establishes regulatory criteria different from the criteria established in a code specified in subparagraph 1 or 2 of this paragraph, the provisions of this administrative regulation shall supersede any provision incorporated by reference;[-]

5. Modifications, alternatives, and interpretations. If the State

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Fire Marshal accepts or approves an alternative to a code provision or issues an interpretation and the alternative or interpretation is of general applicability, it shall be published and forwarded to all known fire inspectors and other persons requesting copies; and[-]

6. A condition, equipment, building, facility or portion thereof, or an alternative designed to comply with [~~meet~~] the intent of a code provision which has been accepted or approved in accordance with subsection (2) of this section shall not be considered a distinct fire hazard[-] if it is maintained and used as accepted or approved.

(5) Abatement of fire hazards. The abatement of a distinct fire hazard pursuant to this administrative regulation shall not require construction measures which would exceed the requirements of the current edition of the Kentucky Building Code if the building were being newly constructed.

(6) Maintenance of equipment.

(a) All fire suppression and fire protection equipment, systems, devices, and safeguards shall be maintained in good working order.

(b) This administrative regulation shall not be the basis for removal or abrogation of a fire protection or safety system or device that exists in a building or facility.

(7) Cooperation with building official. The State Fire Marshal and the local fire chief shall coordinate and cooperate with the building code official having jurisdiction in assessing a building for relative fire safety and to assure that the proper standards are [~~being~~] applied.

Section 4. Permits. (1) State permits required. A permit shall be required from the State Fire Marshal for the following types of installations:

(a) Elevator installations and alterations;

(b) Boiler installations and alterations; and

(c) Flammable, combustible, and hazardous material storage vessel installations.

(2) Local permits allowed.

(a) A permit from a local government shall not be required unless it is required by local ordinance.

(b) An inspection or permit fee, if applicable, shall be stipulated in the local adopting legislation.

Section 5. Enforcement of Violations. (1) Notice of deficiency. If the State Fire Marshal or local fire chief observes an apparent violation of a provision of this administrative regulation and the standards incorporated herein or other codes or ordinances under state or local [~~his~~] jurisdiction, the State Fire Marshal or local fire chief shall prepare a written notice of deficiency, citing the applicable code provision and specifying a time period in which the required repairs or improvements shall be completed.

(2) Service of notice. The written notice of deficiency shall be served upon the owner or the owner's [~~his~~] duly authorized agent and upon each other person responsible for the deficiency.

(3) Failure to correct deficiency.

(a) Except if an appeal is in process pursuant to Section 6 of this administrative regulation, each deficiency shall be considered a violation.

(b) If a correction required in the notice of deficiency is not completed within the time specified, the appropriate legal proceedings to compel compliance shall [~~may~~] be requested by the authority having jurisdiction.

Section 6. Means of Appeal. (1) State Fire Marshal appeals.

(a) An appeal to the State Fire Marshal from a notice of deficiency issued by an employee or deputy of the State Fire Marshal shall be in writing and shall be requested prior to the completion date required by the notice.

(b) If the matter is not resolved by agreement of the affected parties and the State Fire Marshal, other appropriate legal action may be instituted pursuant to KRS Chapter 227.

(2) Local appeals. If a local government adopts an ordinance for the enforcement of this administrative regulation, the appeal from a decision of the local fire chief shall be to the person or entity as provided by the ordinance.

Section 7. Temporary Occupancies. A change in use, subject to Section 3(1)(c) of this administrative regulation, shall not be prohibited if the building is being used for temporary purposes, in accordance with the requirements of this section.

(1) Time limit. The use of the building shall not exceed a total of thirty (30) days in a calendar year.

(2) Prior notice. The owner of the property shall notify the State Fire Marshal or local fire chief, in writing, of the proposed new use, stating the nature of the use of the building and the precise dates and times the building is to be occupied.

(3) Inspection. In the notification, the owner shall consent to inspection and an opportunity for the inspection of the building shall be afforded to the State Fire Marshal or local fire chief[-] upon request.

(4) Safety requirements. The property owner shall be responsible for maintaining the fire safety of the building and shall comply with the applicable provisions of this administrative regulation for the proposed use, as required by the State Fire Marshal or local fire chief.

Section 8. Special Provisions. (1) Passenger elevator incidents [~~accidents~~].

(a) Notification of Chief Elevator Inspector [~~State Fire Marshal~~]. The owner of the building shall immediately notify the Chief Elevator Inspector [~~State Fire Marshal~~] of every incident [~~accident~~] involving personal injury, persons rescued from a stalled elevator by emergency or maintenance personnel, or damage to the apparatus on, about, or in connection with a passenger elevator and shall afford the Chief [~~State~~] Elevator Inspector [~~State Fire Marshal~~] every facility for investigating the incident [~~accident~~].

(b) Discontinued use of elevator. If an incident [~~accident~~] involves the failure, breakage, damage, or destruction of a part of the apparatus or mechanism, it shall be unlawful to use the device until after an examination by the Chief [~~State~~] Elevator Inspector [~~State Fire Marshal~~] is made and approval of the equipment for continued use has been [~~is~~] granted.

(c) Removal of damaged parts. If an incident [~~accident~~] involves personal injury or damage to the apparatus, it shall be unlawful to remove a part of the damaged construction or operating mechanism of the elevator or other equipment from the premises until permission has been granted by the Chief [~~State~~] Elevator Inspector [~~State Fire Marshal~~].

(2) Fire incident reporting. The fire chief or highest ranking fire department officer shall promptly notify the State Fire Marshal upon becoming aware of any of the following:

(a) A hazardous materials incident;

(b) Fire-related fatality (including a vehicle or home);

(c) Fire-related injury serious enough to become a fatality; or

(d) A fire involving major structural damage in the following buildings:

1. All institutional, educational, state-owned or state-leased, or [~~and~~] high-hazard occupancies;

2. All business, mercantile, and industrial occupancies having a capacity over 100 persons;

3. All assembly occupancies, except churches, having a capacity over 100 persons;

4. Churches with a capacity over 400 persons and more than 6,000 square feet; or

5. Any other building more than three (3) stories in height or 20,000 square feet of floor area.

(3) Fire protection systems testing and inspection.

(a) Reporting. Except as provided in paragraph (c) of this subsection, an inspection or test required by Chapter 11, 13, or 20 of the NFPA 1, Uniform Fire Code shall be conducted and reported by a person authorized or certified by the State Fire Marshal.

(b) Inspection and test reports.

1. A required inspection or test shall be recorded on the applicable [~~an appropriate~~] form [~~from~~] contained in NFPA 25 or NFPA 72 and approved by the State Fire Marshal.

2. If any violations are noted, the appropriate forms shall be forwarded to the State Fire Marshal within ten (10) working days of the date of the inspection[-~~if any violations are noted~~].

(c) Reporting exceptions.

1. A portable fire extinguisher or single station smoke detector

VOLUME 33, NUMBER 12 – JUNE 1, 2007

inspection or test may be inspected and tested by the property owner and their agent.

2. These reports shall not be required to be filed with the State Fire Marshal.

(d) Frequency. Periodic test and inspection of a fire suppression or alarm system shall be performed as follows:

1. Fire detection and alarm systems and all fire suppression systems in buildings other than state licensed hospitals, nursing homes, and ambulatory surgical centers shall be inspected and tested for proper operation annually;

2. Fire detection and alarm systems and all fire suppression systems in state licensed hospitals, nursing homes, and ambulatory surgical centers shall be inspected and tested quarterly; and

3. Systems or components for which the manufacturer recommends more frequent checks shall be performed as described by the manufacturer's instructions.

(e) Inspectors.

1. Fire alarm inspectors shall apply to be certified by the office on a Form FPS 33-01 and for renewals on Form FPS 33-02 and shall:

a. (i) Be qualified as NICET level two (2), level three (3), or level four (4) in fire alarm systems; or

(ii) Pass the examination for alarm inspector administered by an approved examination provider;

b. Have had at least eighteen (18) months of experience, training, or instruction in fire alarm systems within the immediately prior five (5) year period;

c. Pay a yearly certification fee of fifty (50) dollars for each classification, which shall be valid until the inspector's birth month and renewed annually [thereafter];

d. Submit a passport size color photograph with the application or renewal form; and

e. (i) Have six (6) hours of continuing education from an approved provider obtained in the twelve (12) months prior to renewal; or

(ii) Provide proof of current NICET certification.

2. Penalties. A person shall not:

a. Fail to conduct an inspection in accordance with the NFPA 72 standard;

b. Submit false inspection reports;

c. Conduct inspections without first having been certified by the office as a fire alarm inspector; or

d. Make a false or misleading statement on an application for certification or renewal.

Section 9. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) NFPA 1, "Uniform Fire Code", 2006 edition;

(b) NFPA 101, "Life Safety Code", 2006 edition;

(c) FPS 33-01, "Application for Fire Alarm Systems Certification", April 2006; and

(d) FPS ~~33-02~~ [33-04], "Renewal Application for Fire Alarm Systems Certification", April 2006.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, Monday through Friday, 8 a.m. to 4:30 p.m.

FLOYD VAN COOK, Executive Director

TIMOTHY J. LEDONNE, Commissioner

LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary

APPROVED BY AGENCY: March 12, 2007

FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, 100 Suite, Frankfort, Kentucky 40601-5405, phone (502) 573-0365, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Department of Public Protection

Office of Housing, Buildings and Construction

Division of Plumbing

(As Amended at ARRS, May 8, 2007)

815 KAR 20:015. Fees and refunds.

RELATES TO: KRS 318.050, 318.054, 318.134

STATUTORY AUTHORITY: KRS 318.130 [~~318.050 and KRS 318.134~~]

NECESSITY, FUNCTION, AND CONFORMITY: KRS 318.050, 318.054, and 318.134 authorize the office to establish license and permit fees. KRS 318.130 authorizes the office to adopt reasonable rules or regulations to administer KRS Chapter 318. This administrative regulation establishes acceptable methods of payment of fees, a penalty for returned payments, and the requirements to receive a refund of installation permit payments. The office is directed by KRS 318.130 to adopt and put into effect a State Plumbing Code. The office is directed by KRS 318.050 to adopt reasonable fees for licensure as a journeyman plumber or master plumber. KRS 318.054 authorizes the office to establish fees for the renewal or revival of licenses, and KRS 318.134 authorizes the office to establish fees for installation permits. This administrative regulation establishes the manner in which fees are to be paid to the office. The regulation also establishes the penalty for nonpayment of fees as well as the requirements to receive a refund for installation permits.

Section 1. Fees. (1) Fees payable to [received by] the Division of Plumbing shall be paid [made] by:

(a) Money order;

(b) Check;

(c) Credit card;

(d) Debit card; or

(e) Electronic funds transfer.

(2) All fees shall be made payable to the Kentucky State Treasurer [Treasury].

Section 2. Returned payments. (1) If a fee is [Fees] returned to the Division of Plumbing for nonpayment, the payor shall be assessed a fee of thirty-five (35) dollars, except when proof of fault of the financial institution is provided [made available].

(2) Companies or individuals that [which] are notified of a returned payment shall, for a period of six (6) months, make all payments to the Division of Plumbing by:

(a) Cashier's check;

(b) Certified check;

(c) Money order; or

(d) Electronic funds transfer.

Section 3. Permit refunds. Refunds for installation permits shall be given if:

(1) [(a)] The refund request is made within twelve (12) months of purchase; and

(2) [(b)] Work has not begun on the project for which the permit was issued.

FLOYD VAN COOK, Executive Director

TIMOTHY J. LEDONNE, Commissioner

LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary

APPROVED BY AGENCY: March 12, 2007

FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502) 573-0394 ext. 144, fax (502) 573-1057.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Plumbing
(As Amended at ARRS, May 8, 2007)

815 KAR 20:110. Traps and clean-outs.

RELATES TO: KRS 318.010, 318.130, 318.150
STATUTORY AUTHORITY: KRS 318.130

NECESSITY, FUNCTION, AND CONFORMITY: KRS 318.130 requires the office after review by [department], [through] the State Plumbing Code Committee, to promulgate an administrative regulation establishing the Kentucky [a] State Plumbing Code. [~~EO 2003-064 filed December 23, 2003 created the Environmental and Public Protection Cabinet. EO 2004-031 filed January 6, 2004 changed the Department of Housing, Buildings and Construction to the Office of Housing, Buildings and Construction.~~] This administrative regulation establishes requirements for traps and clean-outs to prevent harmful gases and odors from entering a building or home that is served by a plumbing system and identifies the manufacturer's specification number of acceptable [the] material [accepted in an installation].

Section 1. Traps, Kind and Minimum Size. (1) A Trap shall be self-cleaning.

(2) A trap for a bathtub, lavatory, sink or other similar fixture shall be made of the following:

(a) Tubular brass;

(b) Tubular ABS (acrylonitrile butadiene styrene) or PVC (polyvinyl chloride) produced and labeled as ASTM F-409;

(c) Cast brass;

(d) Cast iron;

(e) Lead;

(f) Schedule 40 PVC; or

(g) Schedule 40 ABS, [either be tubular brass, tubular ABS or PVC produced and labeled as ASTM F-409, cast brass, cast iron, lead or schedule 40 PVC (polyvinyl chloride) or ABS (acrylonitrile-butadiene styrene) trap.]

(3) A tubular or schedule 40 PVC_s or tubular or schedule 40 ABS p-trap shall be either the union-joint or solvent welded type.

(4) A tubular brass trap shall be seventeen (17) gauge.

(5) A tubular brass, tubular PVC_s or tubular ABS trap shall not be installed below the finished floor serving a fixture.

(6) A trap shall have a full-bore, smooth interior waterway.

(7) The threads in a cast brass or cast iron trap shall be tapped out of solid metal.

(8) A lead trap shall be extra heavy.

Section 2. Prohibited Traps [~~Prohibited~~]. A trap which depends upon the action of a movable part or concealed interior partition for its seal shall not be used.

Section 3. Required Traps [~~Where Required~~]. (1) A fixture shall be separately trapped by a water-seal trap placed as near as possible to the fixture but not to exceed ten (10) inches from the bottom of the fixture to the dip of the seal.

(2) Waste from a bathtub or other fixture shall not discharge into a water closet bend.

(3) A fixture shall not be double trapped.

Section 4. Water Seal. A fixture trap shall have a water seal not less than two (2) inches nor [or] more than four (4) inches.

Section 5. Trap Clean-outs. A trap clean-out shall be optional.

Section 6. Trap Levels and Protection. A trap shall be set true with respect to its water seal and shall be protected from frost and evaporation. Trap primers shall be required on all floor drains and open receptacles in commercial[~~]~~ mechanical/boiler rooms and on open receptacles that receive the discharge from a temperature and pressure relief device discharge only.

Section 7. Pipe Clean-outs. (1) The bodies of clean-out ferrules

shall be made in a standard pipe size, conforming in thickness to that of the pipe and fittings and shall not extend less than one-quarter (1/4) inch above the hubs [hub] in which they are [it-is] placed.

(2) The clean-out cap or plug shall be yellow-brass, PVC, or ABS not less than one-eighth (1/8) inch thick and shall have a raised nut or recessed pocket for removal.

Section 8. Required Pipe Clean-outs [~~Where Required~~]. (1) In a building served by a stack over forty-five (45) feet in height, a clean-out shall be provided at the base of each vertical waste or soil stack.

(2) There shall be at least one (1) clean-out in the building drain with a full-size branch inside the wall or outside the building at a point not to exceed two (2) feet from the foundation wall. This clean-out shall be a two (2) directional fitting or a combination of sanitary tees or tee wyes to allow cleaning in both directions.

(3) If located outside the building, the clean-out shall be extended to the finished grade for accessibility.

(4) A clean-out shall be of the same nominal size as the pipe it serves up to four (4) inches and shall not be less than four (4) inches for larger pipe.

(5) A clean-out [Clean-outs] installed on a four (4) inch sewer shall be a two (2) directional fitting or a combination of sanitary tees or tee wyes to allow cleaning in both directions.

Section 9. Manholes. An underground clean-out in a building shall be:

(1) [~~except if a clean-out is~~] Flush with the floor or wall; or [~~]~~

(2) [~~shall be made~~] Accessible by a manhole [~~or with a proper cover~~].

Section 10. Clean-outs (Equivalents). A floor or wall connection of a fixture [~~trap, whether bolted or screwed to the floor or wall,~~] shall be regarded as a clean-out, except [~~However,~~] such fixtures shall not be regarded as a [with the exception of the] clean-out where the house drain enters a building.

Section 11. Grease Traps. (1) If a grease trap is installed, it shall be:

(a) Placed as near to the fixture it serves as practical; and

(b) Approved by the office [department].

(2) A grease trap used inside a building shall:

(a) Have a sealed cover; and

(b) Be properly vented.

(3) A grease trap shall be installed for a restaurant, food service establishment or other business establishment as required by municipal:

(a) ~~Applicable administrative regulations promulgated by the Office of Housing, Buildings and Construction; or~~

(b) Municipal ordinance.

(4) If a food establishment uses a private sewage system, a grease trap shall be installed as required by 902 KAR 10:085.

Section 12. Sand Traps. A sand trap shall be: (1) Readily accessible; and

(2) Shall serve the purpose intended. [~~meet the requirements established in the applicable administrative regulations promulgated by the Office of Housing, Buildings and Construction.~~]

Section 13. Basement Floor Drains. (1) A basement floor drain shall:

(a) Connect to a trap;

(b) Be readily accessible for cleaning; and

(c) Be of sufficient size to serve the purpose intended.

(2) If a drain is subject to back flow or back pressure, the drain shall be equipped with a backwater valve that complies with Section 14 of this [approved by] administrative regulation [of the Office of Housing, Buildings and Construction].

Section 14. Back Water Valves. A back water valve shall be:

(1) Made of noncorrosive material; and

(2) Constructed to insure a positive mechanical seal except if discharging waste.

Section 15. Residential Utility Room Floor Drains. A two (2) inch floor drain with an individual waste and vent may be installed in a residential utility room.

Section 16. Directional Flow Fittings and Continuous-waste. A kitchen sink unit or fixture with more than one (1) unit may be connected with a continuous-waste, if a directional flow fitting is used. Continuous-waste shall be either seventeen (17) gauge tubular brass or schedule 40 ABS or PVC or tubular ABS or PVC material.

FLOYD VAN COOK, Executive Director
 TIMOTHY J. LEDONNE, Commissioner
 LLOYD R. CRESS, Deputy Secretary
 For TERESA J. HILL, Secretary
 APPROVED BY AGENCY: March 12, 2007
 FILED WITH LRC: March 14, 2007
 CONTACT PERSON: David L. Reichert, General Counsel,
 Office of Housing, Buildings and Construction, 101 Sea Hero
 Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502)
 573-0394, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Plumbing
(As Amended at ARRS, May 8, 2007)

815 KAR 20:120. Water supply and distribution.

RELATES TO: KRS 318.010, 318.130, 318.150, 318.165,
 318.200

STATUTORY AUTHORITY: KRS 198B.040(10), 318.130

NECESSITY, FUNCTION, AND CONFORMITY: KRS 318.130 requires the office, after review by the State Plumbing Code Committee, to promulgate an administrative regulation establishing the Kentucky State Plumbing Code regulating plumbing, including the methods and materials that may be used in Kentucky. [The office is directed by KRS 318.130 through the State Plumbing Code Committee to adopt and put into effect a State Plumbing Code.] This administrative regulation establishes the types of piping and pipe sizes required for a potable water supply system and the methods to be used to protect and control the water supply system and requires the manufacturer's specification number of the material accepted in those installations to be identified and published.

Section 1. Definitions. (1) "ASSE" means the American Society of Sanitary Engineers, 901 Canterbury, Suite A, Westlake, Ohio 44145.

(2) "ASTM" means the American Society for Testing Materials, 100 Barr Harbor Drive, P. O. Box C700, Conshohocken, Pennsylvania 19428-2959.

(3) "Critical level" or "CL" means the level to which the vacuum breaker may be submerged before backflow will occur, and if the CL marking is not shown on the vacuum breaker, the bottom of the device shall be taken as the CL.

(4) "DWV" means drain, waste and vent piping.

(5) "NSF" means the National Sanitation Foundation.

(6) "SDR" means standard dimensional ratio.

Section 2. Quality. (1) The bacteriological and chemical quality of the water supply shall comply with the administrative regulations of the office and other governing authorities. Toxic material shall be kept out of a potable water system.

(a) The pipe conveying, and each surface in contact with, potable water shall be constructed of nontoxic material.

(b) A chemical or other substance that could produce either a toxic condition, taste, odor, or discoloration in a potable water system shall not be introduced into, or used in, the system.

(c) The interior surface of a potable water tank shall not be lined, painted, or repaired with a material that [which] will affect [either] the taste, odor, color, or potability of the water supply if the tank is placed in, or returned to, service.

(2) Potable water shall be accessible to a plumbing fixture that supplies water for drinking, bathing, culinary use or the processing of a medicinal, pharmaceutical, or food product.

(3) The potable water supply system shall be designed, installed, and maintained to prevent contamination from a nonpotable liquid, solid, or gas being introduced into the potable water supply through a cross connection or other piping connection to the system.

(4) A cross connection shall be prohibited unless:

(a) The connection meets the other requirements established in this administrative regulation; and

(b) A suitable protective device is installed.

(5) A cross connection between a private water supply and a public water supply shall not be made.

(6) Closed water systems, protection from excess pressure.

(a) If a single check valve is installed in a water system, a thermal expansion tank sized in accordance with manufacturer's instructions shall be installed in the cold water supply located near the water heater.

(b) If a backflow preventer is installed in a water system, a properly sized thermal expansion tank or other pressure relief device listed in 815 KAR 20:020 shall be installed in the water distribution system.

(c) If a pressure reducing valve not equipped with a bypass is installed in the cold water supply line to a water heater, a thermal expansion tank shall be installed in the cold water line near the water heater.

(7) Backflow and back siphonage protection. Protection [Means of protection] against backflow shall be provided as required in paragraphs (a) through (l) of this subsection in order of degree of protection provided. Backflow shall include both back pressure and back siphonage.

(a) An air gap shall provide the best level of protection in all backflow situations. The minimum required air gap shall be determined as follows:

1. How measured. The minimum required air gap shall be measured vertically from the lowest end of a potable water outlet to the flood rim or line of the fixture or receptacle into which it discharges.

2. Size. The minimum required air gap shall be:

a. Twice the effective opening of a potable water outlet; or

b. If the outlet is a distance less than three (3) times the effective opening away from a wall or similar vertical surface, three (3) times the effective opening of the outlet.

3. The minimum required air gap shall not be less than shown in the following table - Minimum Air Gaps for Plumbing Fixtures.

MINIMUM AIR GAPS FOR PLUMBING FIXTURES		
Fixture	Minimum Air Gap	
	When not affected by near wall (inches)	When affected by near wall (inches)
Lavatories and other fixtures with effective opening not greater than 1/2 inch diameter	1	1 1/2
Sink, laundry trays, gooseneck bath faucets and other fixtures with effective openings not greater than 3/4 inch diameter	1 1/2	2 1/4
Over rim bath fillers and other fixtures with effective openings not greater than 1 inch diameter	2	3
Drinking water fountains - single orifice not greater than 7/16 (0.437) inch diameter or multiple orifices having total area of 0.150 square inches (area of circle 7/16 inch diameter)	1	1 1/2
Effective openings greater than 1 inch	2 x diameter of effective opening	3 x diameter of effective opening

VOLUME 33, NUMBER 12 – JUNE 1, 2007

NOTE 1. Side walls, ribs, or similar obstructions do not affect air gaps if spaced from the inside edge of the spout opening a distance greater than three (3) times the diameter of the effective opening for a single wall, or a distance greater than four (4) times the diameter of the effective opening for two (2) intersecting walls.

NOTE 2. Vertical walls, ribs, or similar obstructions extending from the water surface to or above the horizontal plane of the spout opening require a greater air gap if spaced closer to the nearest inside edge of spout opening than specified in NOTE 1 above. The effect of three (3) or more vertical walls or ribs has not been determined. In this case, the air gap shall be measured from the top of the wall.

(b) A reduced pressure principle back pressure backflow preventer. A reduced pressure principle back pressure backflow preventer shall provide the best mechanical protection against backflow available[.] and shall be considered equivalent to an air gap.

(c) Double check valve assembly: applicable to low level of hazard back pressure backflow conditions. This device shall be a manufactured assembly consisting of two (2) independently acting check valves and including a shutoff valve at each end, and pet-cock and test gauge for testing the watertightness of each check valve.

(d) Pressure type vacuum breaker: applicable to back siphonage conditions.

(e) Atmospheric type vacuum breaker: applicable to back siphonage conditions. If applicable, an atmospheric type vacuum breaker shall be installed after the last cutoff valve on the water line. This device may operate under normal atmospheric pressure if the critical level (CL) is installed at the required height in accordance with the [following] table in this paragraph:

CRITICAL LEVEL (CL) SETTINGS FOR ATMOSPHERIC TYPE VACUUM BREAKERS	
Fixture or Equipment	Method of Installation
Aspirators, ejectors, and showers	CL at least 6 in. above flood level of receptacle
Bidets	CL at least 6 in. above flood level of receptacle
Cup beverage vending machines	CL at least 12 in. above flood level of machine
On models without built-in vacuum breakers:	
Dental units	CL at least 6 in. above flood level rim of bowl.
Dishwashing machines	CL at least 6 in. above flood level of machine
Flushometers (closet & urinal)	CL at least 6 in. above top of fixture supplied
Garbage can cleaning machines	CL at least 6 in. above flood level of machine
Hose bibs (sinks or receptacles)	CL at least 6 in. above flood level of receptacle served

Hose outlets	CL at least 6 in. above highest point on hose line
Laundry machines	CL at least 6 in. above flood level of machine
Lawn sprinklers	CL at least 12 in. above highest sprinkler or discharge outlet
Steam tables	CL at least 12 in. above flood level
Tanks & vats	CL at least 6 in. above flood level rim or line

(f) Barometric loop: applicable to back siphonage conditions. The use of a barometric loop shall not be acceptable as the primary back siphonage preventer.

(g) Location of backflow and back siphonage preventers. A backflow and back siphonage preventer shall be in an accessible location, preferably [preferable] in the same room as the fixture or connection it protects. A device may be installed in a utility or service space. A device or air gap shall not be installed in a location subject to flooding or freezing.

(h) Inspection of devices. A periodic inspection shall be made of each backflow and back siphonage preventer to determine if it is in proper working condition. A reduced pressure principle back pressure backflow preventer shall be tested on at least an annual basis. Records shall be kept on each inspection.

(i) Approval of devices. Before a device for the prevention of backflow or back siphonage is installed, it shall be identified as meeting the applicable specifications as listed in the application chart included in paragraph (l) of this subsection. A device installed in a building potable water supply distribution system for protection against backflow shall be maintained in good working condition by the person responsible for the maintenance of the system.

(j) Protection of potable water system. A potable water opening, outlet, or connection, except one (1) that serves a residential unit, shall be protected against backflow in accordance with paragraphs (a) through (l) of this subsection.

(k) Degree of hazard. The protection required at an outlet or connection shall be determined based on the degree of hazard posed by that outlet or connection as follows:

1. Severe hazard, if there is potential for contamination by a toxic substance or disease-causing organism;
2. Moderate hazard, if there is potential[.] for contamination by a nontoxic but objectionable substance; or
3. Minor hazard, if there is potential for contamination by a generally nontoxic, nonobjectionable substance, but which may cause the consumer to question the quality of water.

(l) Minimum acceptable protection. An opening or outlet shall be protected by an air gap between the opening and flood level rim if possible. The acceptable protection for various types of outlets or connections shall be as shown in the tables in this paragraph [following table]:

APPLICATION TABLE [CHART]				
TYPE AND PRES-SURE	DESCRIPTION	INSTALLED AT	EXAMPLES OF INSTALLATIONS	APPLICABLE SPECIFICATIONS
Reduced pressure principle backflow preventer for high hazard cross connections	Two independent check valves with intermediate relief valve. Supplied with shut-off valves and ball-type test cocks.	All cross connections subject to backpressure or back siphonage if there is a high potential health hazard from contamination. Continuous pressure.	Main supply lines, commercial boilers, cooling towers, hospital equipment, processing tanks, laboratory equipment, waste digesters, car wash, sewage treatment, lawn sprinklers	ASSE No. 1013 AWWA C506 FCCCHR of U.S.C. CSA B.64.4 Sizes 3/4" - 10"
(A) Double check valve assembly for low hazard cross connections	Two independent check valves. Supplied with shutoff valves and ball type test cocks.	All cross connections subject to back pressure if there is a low potential health hazard or nuisance. Continuous pressure.	Main supply lines, food cookers, tanks and vats, commercial pools	N ASSE No. 1015 O AWWA C506 N FCCCHR of T U.S.C. O CSA B.64.5 X Sizes 3/4" - 10"
(b) Dual check valve backflow preventer for low hazard applications	Two independent check valves. Checks are removable for testing	Cross connections if there is a low potential health hazard and moderate flow requirements.	Post ground hydrants	I ASSE No. 1024 C Sizes 3/4" & 1"

VOLUME 33, NUMBER 12 – JUNE 1, 2007

(A) Backflow preventer with intermediate atmospheric vent for moderate hazard cross connections in small pipe sizes	Two independent check valves with intermediate vacuum breaker and relief valve.	Cross connections subject to back pressure or back siphonage if there is a moderate health hazard. Continuous pressure.	Boilers (small), cooling towers (small), dairy equipment residential	ASSE No. 1012 CSA B.64.3 Sizes 1/2" & 3/4"
(B) Backflow preventer for carbonated beverage machine	Two independent check valves with a vent to atmosphere	On potable water distribution lines serving beverage-dispensing equipment to prevent backflow of carbon dioxide gas and carbonated water into the water supply system.	Postmix carbonated beverage machine	ASSE 1022
(C) Laboratory faucet and double check valve with intermediate vacuum breaker in small pipe sizes for moderate to low hazard	Two independent check valves with intermediate vacuum breaker and relief vent.	Cross connection subject to back pressure or back siphonage if there is a moderate to low health hazard.	Laboratory faucets and pipe lines, barber shop and beauty parlor sinks	ASSE No. 1035 (N-LF9)
(A) Atmospheric vacuum breakers for moderate to high hazard cross connections	Single float and disc with large atmospheric port.	Cross connections not subject to backpressure or continuous pressure. Install at least 6" above fixture rim. Protection against back siphonage only.	Process tanks, dishwashers, soap dispensers, washing machines	ASSE No. 1001 ANSI.A112.1.1 CSA B.64.1.1 FCCCHR of U.S.C. Sizes 1/4" - 3"
(B) Antisiphon pressure breakers for moderate to high hazard cross connections	Spring loaded single float and disc with independent 1st check. Supplied with shutoff valves and ball type test cocks.	This valve is designed for installation in a continuous pressure potable water supply system 12" above the overflow level of the system being supplied. Protection against back siphonage only.	Laboratory equipment, cooling towers, comm. Laundry machines, swimming pools, commercial plating tanks, lg. Toilet total & urinal facilities, degreasers, photo tanks, livestock water systems, lawn sprinklers	ASSE No. 1020 CSA B.64.1.2 FCCCHR of U.S.C. Sizes 1/2" - 2"
(C) Hose connection vacuum breakers for residential and industrial hose supply outlets	Single check with atmospheric vacuum breaker vent.	Install directly on hose bibs, service sinks and wall hydrants. Not for continuous pressure.	Hose bibs, service sinks, hydrants	ASSE No. 1011 CSA B.64.2 Size 3/4" Hose

CROSS CONNECTIONS, DEGREE OF HAZARD AND ACCEPTABLE PROTECTION FOR VARIOUS PLUMBING OUTLETS AND CONNECTIONS								
Type of Connection	Degree of Hazard				Acceptable Protection			
	Severe	Moderate	Minor	Air Gap	Reduced Pressure Device	Backflow Double Check Valve Assembly	Pressure Type Vacuum Breaker	Backsiphonage Atmospheric Type Vacuum Breaker
I. Connections subject to back pressure from:								
A. Pumps, tanks, and lines handling:								
1. Toxic substance	X			X	X			
2. Nontoxic substance		X		X	X	X		
B. Boilers								
1. With chemical additives	X			X	X			
2. Without chemical additives		X		X	X	X		
C. Gravity due to obvious site conditions subject to:								
1. Contamination by toxic substances	X			X	X			

2. Contamination by nontoxic substances		X		X	X	X		
II. Water outlets and connections not subject to back pressure:								
A. Connection to sewer or sewage pump	X			X				
B. Outlet to receptacles containing toxic substances	X			X	X		X	X
C. Outlet to receptacles containing nontoxic substances		X		X	X	X	X	X
D. Outlet into domestic water tanks			X	EACH CASE TREATED SEPARATELY				
E. Flush valve toilets	X			X	X		X	X
F. Flush valve urinals		X		X	X		X	X
G. Outlets with hose attachments subject to contamination from:								
1. Toxic substance	X			X	X		X	X
2. Nontoxic substance		X		X	X	X	X	
H. Outlets to recirculating cooling tower								
1. With chemical additives	X			X	X			
2. Without chemical additives		X		X	X	X		

Section 3. Water Required. (1) A building equipped with a plumbing fixture and used for habitation or occupancy shall be equipped with a supply of potable water.

(2) In a building used as a residence or a building in which people assemble or are employed, both hot and cold water shall be supplied.

Section 4. Water Service. (1) The water service piping to a building shall:

(a) Not be less than three-fourths (3/4) inch nominal pipe size; and

(b) Be of sufficient size to permit a continuous and ample flow of water to each fixture in the building.

(2) Except as provided in this subsection, the underground water service pipe from the main or water supply system to the water distribution system shall not be less than five (5) feet apart horizontally from the house sewer and shall be separated by undisturbed or compacted earth. The pipe may be placed in the same trench if:

(a) The bottom of the water service pipe at all points is at least eighteen (18) inches above the top of the sewer at its highest point;

(b) The water service pipe is placed on a solid shelf excavated at one (1) side of the common trench; and

(c) The number of joints in the water service pipe is kept to a minimum.

Section 5. Distribution. (1) The water supply shall be distributed through a piping system entirely independent of another piping system.

(2) Piping which has been used for a purpose other than conveying potable water shall not be used for conveying potable water.

(3) Nonpotable water may be used for flushing a water closet or urinal, if the water is piped in an independent system.

(a) If a dual water distribution system is used, the nonpotable water supply shall be durably and adequately identified.

(b)1. An outlet on the nonpotable water distribution system used for a drinking or domestic purpose shall be permanently posted: DANGER - UNSAFE WATER.

2. Each branch, fitting, or valve shall be identified by the word - "NONPOTABLE WATER" either by a sign or brass tag that shall be permanently affixed to the pipe, fitting, or valve.

3. The identification marking shall not be concealed and shall be maintained by the owner.

(4) A backflow device or cross-connection control device shall be approved by the department.

(5) A combination stop and waste valve, cock, or hydrant shall

not be installed in the underground water distribution system without the installation of an approved backflow preventer.

(6) A private water supply shall not be interconnected with a public water supply.

(7) Water used for cooling of equipment or in another process shall not be returned to the potable water system. The water shall be discharged into a drainage system through an air gap, or used for a nonpotable purpose on written approval of the plumbing official.

(8) Hose connections other than those intended for clothes washing machines, frost proof burial hydrants, and water heater drain valves [values] shall be equipped with a vacuum breaker ASSE 1011 for areas not subject to freezing and a vacuum breaker ASSE 1019 for areas subject to freezing.

Section 6. Water Supply to Fixtures. (1) A plumbing fixture shall be provided with a sufficient supply of water for flushing to keep them in a sanitary condition.

(2) A water closet or pedestal urinal shall be flushed by means of an approved tank or flush valve.

(3) The tank or valves shall furnish at least a sufficient amount of water to thoroughly cleanse the surface area of a water closet, urinal, or similar fixture.

(4) If a water closet, urinal, or similar fixture is supplied directly from the water supply system through a flushometer or other valve, the valve shall be set above the fixture to prevent the possibility of polluting the potable water supply by back siphonage.

(5) The fixture shall have a vacuum breaker.

(6) A plumbing fixture, device or appurtenance shall be installed in a manner that shall prevent a possibility of a cross connection between the potable water supply system, drainage system, or other water system.

Section 7. Connections to Boilers. (1) A potable water connection to a boiler feed water system in which a boiler water conditioning chemical is introduced shall be made through an air gap, or provided with a reduced pressure principle backflow preventer located in the potable water line before the point where a chemical is introduced.

(2) A boiler shall be equipped with a check valve in the cold water supply to the boiler.

Section 8. Water Supply to Drinking Fountains. The orifice of a drinking fountain shall be provided with a protective cowl to prevent contamination of the potable water supply system.

Section 9. Sizing of Water Supply Piping. (1) The minimum

size water service from the property line to the water heater shall be three-fourths (3/4) inch. The hot and cold water piping shall extend three-fourths (3/4) inch in size to the first fixture branch. More than three (3), one-half (1/2) [and one-half (3/4)] inch fixture branches shall not be supplied from a one-half (1/2) inch pipe.

(2) The [following] schedule in this subsection shall be used for sizing the water supply piping to a fixture. The branch pipe to a fixture shall terminate not more than thirty (30) inches from the point of connection to the fixture and shall be brought to the floor or wall adjacent to the fixture. A concealed water branch pipe shall not be less than one-half (1/2) inch nominal pipe size.

Fixture Branches	Nominal Pipe Size (Inches)
Bath tubs	1/2
Combination sink and tray	1/2
Cuspidor	1/2
Drinking fountain	1/2
Dishwasher (domestic)	1/2
Kitchen sink (res.)	1/2
Kitchen sink (com.)	1/2 or 3/4 as required
Lavatory	1/2
Laundry tray	1/2
Sinks (service, slop)	1/2
Sinks flushing rim	3/4
Urinal (flush tank)	1/2
Urinal (direct flush type)	1/2 or 3/4 as required
Water closet (tank type)	1/2
Water closet (flush valve type)	1
Hot water boilers	3/4
Hose bibs	1/2
Wall hydrant	1/2
Domestic clothes washer	1/2
Shower (single head)	3/4

(3) Water hammer. In a building supply system in which a device or appurtenance is installed utilizing a quick acting valve that causes noise due to water hammer, a protective device, including an air chamber or approved mechanical shock absorber, shall be installed as close as possible to the quick acting valve causing the water hammer.

(a) If a mechanical shock absorber is installed, the absorber shall be in an accessible place.

(b) If a mechanical device is used, the manufacturer's specifications shall be followed as to location and method of installation.

Section 10. Water Supply Pipes and Fittings, Materials. (1) Water supply piping for a potable water system shall be as follows:

- (a) Galvanized wrought iron;
- (b) Galvanized steel;
- (c) Brass;
- (d) Types K, L, and M copper;
- (e) Cast iron;
- (f) Types R-K, R-L, and R-M brass tubing;
- (g) ~~Standard high frequency welded tubing produced and labeled as ASTM B-586-73;~~

(h) Fusion welded copper tubing produced and labeled as ASTM B-447-2002 [72] and ASTM B-251;

(i) DWV welded brass tubing produced and labeled as ASTM B-587-97 [73];

(j) Seamless stainless steel tubing, Grade H, produced and labeled as ASTM A-268-05a [68];

(k) Filament-wound reinforced thermosetting resin pipe produced and labeled as ASTM D-2996 (red thread for cold water use and silver and green thread for hot and cold);

(l) Polyethylene (PE) plastic pipe produced and labeled as ASTM D-2239-03 [69] or ASTM F-714;

(m) Cross-linked polyethylene (PEX) pipe produced and labeled as ASTM F-876 for cold water and ASTM F-877 for hot or cold water applications;

(n) Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (Pex-Al-Pex) pipe produced and labeled as ASTM F-1281;

(o) Polyethylene/Aluminum/Polyethylene (Pe-Al-Pe) pipe produced and labeled as ASTM F-1282;

(p) Copper tubing size PE produced and labeled as ASTM

D-2737 for water service, if installed with compression couplings;

(q) Polyvinyl chloride (PVC) plastic pipe produced and labeled as ASTM D-1785-06 [69];

(r) Chlorinated Polyvinyl chloride (CPVC) plastic pipe produced and labeled as ASTM D-2846-06 [70];

(s) Polyvinyl chloride (PVC) standard dimensional ratio (SDR) 21 and (SDR) 26 pipe produced and labeled as ASTM D-2241-05 [84];

(t) Polybutylene (PB) plastic pipe produced and labeled as ASTM-D-3309-96a [85b] with brass or copper fitting; [or]

(u) Fusion welded Polypropylene Pipe Products which meet NSF Standards 61 and 14 and ASTM 2389. These products are approved for above-ground use only and using pipe sizes five-eighths (5/8) inch through six (6) inch; or

(v) Push-fit fitting systems which meet the ASSE Standard 1061. These systems are approved for above-ground use only using pipe sizes up to two (2) inches.

(2) A plastic pipe or fitting shall bear the NSF seal of approval.

(3) Polybutylene pipe utilizing an insert fitting of brass or copper shall use a copper clamping ring.

(4) A polybutylene hot and cold water connector to a lavatory, sink, or water closet shall be produced and labeled as ASTM-D-3309-96a [85b], and polybutylene plastic pipe shall be produced and labeled as ASTM 2662 for a cold water application.

(5) A fitting shall be brass, copper, [or] approved plastic, [or] galvanized cast iron, or galvanized malleable iron. Piping or a fitting that has been used for another purpose shall not be used for the water distribution system.

(6) Each joint in the water supply system shall be made of a screw, solder, or plastic joint. A cast iron water pipe joint may be caulked, screwed, or machine drawn.

(7) If Type M copper pipe, Type R-M brass tubing, standard high frequency welded tubing or stainless steel tubing is placed within a concrete floor or passes through a concrete floor, it shall be wrapped with an approved material to permit expansion or contraction.

(8) Polyethylene or PVC shall not be used below ground under a house or building. If a chlorinated polyvinyl chloride [poly(vinyl chloride)] (CPVC) joint or connection is installed below ground under a house or building, the water distribution system shall be tested to at least 100 pounds per square inch [psi] before backfilling. The applicable requirements of 815 KAR 20:060 and 815 KAR 20:073 shall be met.

(9) Joints between copper tubing and galvanized steel pipe. The joint between ferrous piping and copper or copper-alloy piping shall be made with a dielectric fitting or other insulating fitting to prevent electrolysis.

Section 11. Temperature and Pressure Control Devices for Shower Installations. A temperature or pressure balance device to prevent a sudden unanticipated change in water temperature shall be installed to serve each shower compartment and shower-bath combination.

Section 12. Water Supply Control. (1) A main shutoff valve shall be provided near the curb, in or near the meter box or property line on the water service pipe. In addition, a main supply control valve shall be placed inside a foundation wall. The main supply control valve shall be a full port valve and be accessible from within the occupied space and provided with a drip or drain valve. A pit or similar type installation shall not be used for a potable water supply shutoff valve.

(2) A pressure or gravity tank shall have its supply line valved at or near its source.

(3) A family unit in a two (2) family or multifamily dwelling shall have the unit controlled by an arrangement of shutoff valves which will permit the unit to be shutoff without interfering with the cold water supply to another family unit or portion of the building.

(4) In a building other than a dwelling, a shutoff valve shall be installed to permit the water supply to the equipment to be isolated without interference with the supply to other equipment.

(5) A fixture or group of bath fixtures shall be valved and a lawn sprinkler opening shall be valved. In residential construction, each fixture, except a bathtub or shower, shall be valved individu-

ally or as a group of fixtures.

(6) A group of fixtures or a fixture group shall mean two (2) or more fixtures adjacent to or near each other in the same room or back-to-back on a common wall.

(7) The cold water branch to a hot water storage tank or water heater shall be provided with a shutoff valve located near the equipment and serving this equipment. In residential dwellings, the shutoff valve shall be placed within three (3) feet of the water heater and be accessible from the accessible side of the water heater.

Section 13. Water Supply Protection. A concealed water pipe, storage tank, cistern, or other exposed pipe or tank subject to freezing temperatures shall be protected against freezing. A water service shall be installed at least thirty (30) inches in depth.

Section 14. Temperature and Pressure Relief Devices for Water Heaters. (1) A temperature and pressure relief device shall:

(a) Be installed on each water heater on the hot water side not more than three (3) inches from the top of the heater;

(b) If a marked opening is provided on the water heater by the manufacturer for the temperature and pressure relief device, be installed according to the manufacturer's recommendation; and

(c) Be of a type approved by the office in accordance with this administrative regulation and 815 KAR 20:020.

(2)(a) If a water heater is installed in a location that has a floor drain, the discharge from the relief device shall be piped to within two (2) inches of the floor.

(b) If a water heater is installed in a location that does not have a floor drain, the discharge from the relief device shall be piped to the outside of the building with an ell turned down and piped to within four (4) inches of the surface of the ground.

(c) The relief device may discharge through an air gap to a sump basin, service sink, open receptacle or other point of discharge in which equivalent safety shall be provided as approved by the Division of Plumbing.

(3) A relief device shall be installed on a pneumatic water system.

Section 15. Protection of a Private Water Supply or Source. A private water supply or source shall be protected from pollution. [The] Approval shall be obtained from the Division of Plumbing [this office] prior to using the private water supply or source.

Section 16. Domestic Solar Water Heaters. A domestic solar water heater may have a "single wall heat exchanger" if the following conditions are met:

(1) The solar panel and the water heater exchanger use a nontoxic liquid such as propylene glycol or an equivalent;

(2) The heat exchanger is pretested by the manufacturer to 450 pounds per square inch [PSI];

(3) The water heater has a warning label advising that a nontoxic heat exchanger fluid shall be used at all times; and

(4) A pressure relief valve is installed at the highest point in the solar panel.

Section 17. Domestic Water Heater Preheating Device. (1) A domestic water heater preheating device may be used and connected with the high pressure line from the compressor of a domestic home air conditioner or heat pump water heater.

(2) Double wall heat-exchangers with two (2) separate thicknesses separating the heat exchange fluid (other than potable water) from the potable water supply shall be provided.

(3) The water inlet to the heat exchange vessel shall be provided with a check valve. There shall be provided adjacent to, and at the outlet side of the check valve, an approved pressure relief valve set to relieve at five (5) pounds per square inch [PSI] above the maximum water pressure at the point of installation, if the heat exchange units contain more than twenty (20) pounds of refrigerants. This device shall be equipped with a temperature limit control that would actuate a pump that would circulate hot water from the water heater through the preheater device.

(4) Condensate drain water shall be piped in accordance to the plumbing code and it shall not be permitted to drain into crawl

space, or into a sewer or vent stack, or be installed in an area subject to freezing. If a drain is not available or if a drain is located above the vent, a condensate pump shall be utilized.

Section 18. Tanks and Vats below Rim Supply. A tank or vat with potable water supply below the rim shall be subject to the following requirements:

(1) If a potable water outlet terminates below the rim of a tank or vat and the tank or vat has an overflow of diameter not less than given in the [following] table in this subsection, [~~sizes of overflow pipes for water supply tanks,~~] the overflow pipe shall be provided with an air gap as close to the tank as possible;

Sizes of Overflow Pipes for Water Supply Tanks			
Maximum capacity of water supply line to tank	Diameter of Overflow pipe (inches ID)	Maximum capacity of water supply line to tank	Diameter of overflow pipe (inches ID)
0- 50 gpm	2	400- 700 gpm	5
50-150 gpm	2 1/2	700-1000 gpm	6
150-200 gpm	3	Over 1000 gpm	8

(2) The potable water outlet to the tank or vat shall terminate at a distance not less than one and one-half (1 1/2) times the height to which water can rise in the tank above the top of the overflow. This level shall be established at the maximum flow rate of the supply to the tank or vat, and with all outlets, except the air gap overflow outlet, closed; and

(3) The distance from the outlet to the high water level shall be measured from the critical point of the potable water supply outlet.

Section 19. Water Distribution for Fan Coil Units. If a domestic water heater is used for heating purposes through a fan coil medium, its temperature shall not exceed 140 degrees Fahrenheit. It shall utilize not less than three-fourths (3/4) inch piping and its run shall not exceed 140 feet between the water heater and the heating unit. The applicable requirements established in 815 KAR 20:070 shall be met.

Section 20. Fire Protection Systems. A fire protection system using water from the potable water distribution system shall be equipped with two (2) check valves, one (1) of which may be an alarm check valve.

Section 21. Water Distribution and Connections to Mobile Homes. (1) An adequate and safe water supply shall be provided to each mobile home.

(2) All materials, including the pipe or fitting used for a connection, shall conform with the State Plumbing Code.

(3) An individual water connection shall be provided at an appropriate location for each mobile home space.

(a) The connection shall consist of a riser terminating at least four (4) inches above the ground with two and three-fourths (2 3/4) inch valve outlets with screw connection, one (1) for the mobile home water system and the other for lawn watering and fire control.

(b) The ground surface around the riser pipe shall be graded to divert surface drainage.

(c) The riser pipe shall be encased in an eight (8) inch vitrified clay pipe or an equivalent with the intervening space filled with an insulating material to protect it from freezing.

(d) An insulated cover shall be provided which shall encase both valve outlets but not prevent connection to the mobile home during freezing weather.

(e) A shutoff valve may be placed below the frost depth on the water service line, but this valve shall not be a stop-and-waste cock.

Section 22. Conservation of water shall comply with the standards established in 815 KAR 20:070.

FLOYD VAN COOK, Executive Director
TIMOTHY J. LEDONNE, Commissioner
LLOYD R. CRESS, Deputy Secretary
For TERESA J. HILL, Secretary

APPROVED BY AGENCY: March 12, 2007
 FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502) 573-0394 EXT. 144, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Plumbing
(As Amended at ARRS, May 8, 2007)

815 KAR 20:130. House sewers and storm water piping; methods of installation.

RELATES TO: KRS 318.010, 318.015, 318.130, 318.150, 310.200

STATUTORY AUTHORITY: KRS 318.130

NECESSITY, FUNCTION, AND CONFORMITY: KRS 318.130 requires the office [department], after approval by the State Plumbing Code Committee, to promulgate an administrative regulation establishing the Kentucky State Plumbing Code regulating plumbing, including the methods and materials that may be used in Kentucky for the construction of house sewers and storm water piping. This administrative regulation identifies the materials and methods of installation that may be used in the construction of house sewers or storm water piping.

Section 1. Independent System. The drainage and plumbing system of new building and of a new work installed in an existing building shall be separate and independent of other buildings except as otherwise provided [outlined] in this administrative regulation. A building shall have an independent connection with either a public or private sewer or sewer system.

Section 2. Exception. If a building stands in the rear of other buildings or on an interior lot and a sewer connection cannot be made available to the rear building through an adjoining alley, court, yard, or driveway, the sewer from the front building may be extended to the rear building and it shall be considered as one (1) sewer. This exception shall not apply to corner lots if a sewer connection is available from the street or alley or to a new or existing building which abuts a street or alley.

Section 3. Connection with Private Sewage Disposal System. If a sewer is not available, the house drain from a building shall connect with an approved private sewage disposal system.

Section 4. Excavations. An excavation made for the installation of a house sewer shall be open trench work, and the trenches shall be kept open until the piping has been inspected, tested, and approved.

Section 5. Depth of Sewer at the Property Line. (1) The sewer at the property line shall be at a sufficient depth to properly serve a plumbing connection installed in the basement of a building.

(2)(a) A house sewer shall be laid on a grade of not less than one-eighth (1/8) inch nor more than one-fourth (1/4) inch per foot.

(b) A sewer shall have at least an eighteen (18) inch cover.

(c) Sewer piping installed under property subject to vehicular traffic (e.g., a driveway, parking lot, or similar location) shall have at least a twenty-four (24) inch cover unless constructed of cast iron piping. If less than a twenty-four (24) inch cover is available, sewer piping shall be encased in a minimum of six (6) inches of concrete on each side and the top.

(d) A sewer shall be backfilled by hand and tamped six (6) inches above the piping, or filled with six (6) inches grillage above the piping.

(e) Each joint in cast iron and vitrified clay pipe shall be constructed to comply with 815 KAR 20:060, Sections 4 and 5 [made in conformance with the State Plumbing Code].

Section 6. New House Sewer Connections. A house sewer installed where a private sewerage system has been discarded may connect to the house drain, if the existing plumbing system meets the State Plumbing Code.

Section 7. Materials for House Sewers. A house sewer or combined sewer, beginning two (2) feet outside the foundation wall of a building, shall be made of the following:

- (1) Extra heavy cast iron pipe;
- (2) Service weight cast iron;
- (3) Aluminum;
- (4) Vitrified clay;
- (5) Concrete;
- (6) Coextruded composite PVC pipe produced and labeled ASTM F-1488;
- (7) PVC or ABS plastic pipe schedules 40 and 80;
- (8) Cellular core PVC produced and labeled as ASTM F-891;
- (9) Cellular core ABS produced and labeled as ASTM 628;
- (10) Truss pipe;
- (11) Extra heavy SDR 35 pipe;
- (12) Type PS 46, PVC in sizes four (4) inches through fifteen (15) inches produced and labeled as ASTM F 789-82;
- (13) PVC ribbed pipe produced and labeled as ASTM 795; or
- (14) Polyethylene pipe produced and labeled as ASTM F-714, [either extra heavy cast iron pipe, service weight cast iron, aluminum, vitrified clay, concrete, coextruded composite PVC pipe produced and labeled ASTM F-1488, PVC or ABS plastic pipe schedules 40 and 80 and cellular core PVC produced and labeled as ASTM F-891, cellular core ABS produced and labeled as ASTM 628, truss pipe and extra heavy SDR 35 pipe and Type PS 46, Poly(Vinyl Chloride) (PVC) in sizes four (4) inches through fifteen (15) inches produced and labeled as ASTM F 789-82 or PVC ribbed pipe produced and labeled as ASTM 795, polyethylene pipe produced and labeled as ASTM F-714.]

Section 8. Material for Storm Sewers Inside Buildings. (1) [Material for] A storm sewer inside of a building extending to a point two (2) feet outside a building in sizes eight (8) inches and smaller shall be made of the following:

- (a) Cast iron pipe;
- (b) [] Aluminum; or
- (c) Schedule 40 ABS or PVC DWV pipe or PVC pipe produced and labeled as ASTM F-1488.
- (2) A storm sewer in a size of ten (10) inches and larger shall be made in the following:
 - (a) [either] Cast iron;
 - (b) [] Aluminum;
 - (c) [] Schedule 40 ABS or PVC DWV pipe;
 - (d) [] SDR 35;
 - (e) [] Vitrified clay or concrete conforming to appropriate commercial specifications with approved joints; [] or
 - (f) Polyethylene pipe produced and labeled as ASTM F-714.
- (3) Primary and secondary roof drains shall comply with the following requirements:
 - (a) Roof drains shall have strainers extending not less than four (4) inches above the surface of the roof immediately adjacent to the roof drain. Strainers shall have an available area not less than one and one-half (1 1/2) times the area of the conductor or leader to which the drain is connected;
 - (b) Roof drain strainers for use on sun decks, parking decks, and similar areas that are normally serviced and maintained may be of the flat surface type, installed level with the deck, with an available inlet area not less than two (2) times the area of the conductor or leader to which the drain is connected;
 - (c) Secondary (emergency) roof drains or scuppers shall be provided where the roof perimeter construction allows ponding if the primary roof drains become blocked;
 - (d) Separate systems required. Secondary roof drain systems shall have piping and point of discharge separate from the primary system. Discharge shall be above grade in a location which would normally be observed by the building occupants or maintenance personnel; and
 - (e) Primary and secondary drains must be sized in accordance with 815 KAR 20:130, Section 11, of the Kentucky State Plumbing

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Code.

Section 9. Change of Direction. A change in direction of a sewer shall be made only with:

- (1) Long curves;
- (2) [;]Forty-five (45) degree wyes;
- (3) [;]Half wyes;
- (4) [;]Quarter, sixth, eighth or sixteenth bends; or
- (5) Sanitary tees installed on their back or on their sides at an angle of not more than forty-five (45) degrees.

Section 10. Size of House Sewers and Horizontal Branches. The minimum size of a house sewer shall not be less than four (4) inches nor less than that of the house drain. A house sewer receiving a branch shall be sized in the same manner as a house drain. The house drains shall be installed in accordance with 815 KAR 20:090.

Section 11. Size of Storm Systems. The required size of a storm sewer shall be determined on the basis of the total drained area in horizontal projection in accordance with [the following] table **in this section**. A storm sewer shall not be laid parallel to or within two (2) feet of a bearing wall. The storm sewer shall be laid at a sufficient depth to protect it from freezing.

Diameter of pipe - inches	Maximum drained roof area square feet*	
	Slope 1/8 in. fall to 1 ft.	Slope 1/4 in. fall to 1 ft.
3	N/A	1,160
4	1,880	2,650
5	3,340	4,720
6	5,350	7,550
8	11,500	6,300
10	20,700	29,200
12	33,300	47,000
15	59,500	84,000

*The calculations in this table are based on a rate of rainfall of four (4) inches per hour.

Section 12. Combined Storm and Sanitary Sewer System. If a combined sewer system is used, the required size of the house drain or house sewer shall be determined by multiplying the total number of fixture units carried by the drain or sewer by the conversion factor corresponding to the drained area, and the total fixture units, adding the product to the drained area and applying the sum **from [of] the [preceding] table for storm water sewers in Section 11 of this administrative regulation**. A combined house drain or house sewer shall not be less than four (4) inches in diameter, and a combined house drain or house sewer shall not be smaller in size than that required for the same number of fixture units or for the same roof area in separate systems.

CONVERSION FACTORS FOR COMBINED STORM AND SANITARY SYSTEM								
Drained roof area in square feet	Number of fixture units on sanitary system							
	Up to 6	7 to 18	19 to 36	37 to 60	61 to 96	97 to 144	145 to 216	217 to 324
Up to 120	180	105	60	45	30	22	18	15
121 to 240	160	98	57	43	29	21	17.6	14.7
241 to 480	120	75	50	39	27	20	16.9	14.3
481 to 720	75	62	42	35	24	18	15.4	13.2
721 to 1,080	54	42	33	29	20	15	13.6	12.1
1,081 to 1,620	30	18	16	15	12	11.5	11.1	10.4
1,621 to 2,430	15	12	11	10.5	9.1	8.8	8.6	8.3
2,431 to 3,645	7.5	7.2	7.0	6.9	6.6	6.5	6.4	6.3
3,646 to 5,460	2.0	2.4	3.0	3.3	4.1	4.2	4.3	4.4
5,461 to 8,190	0	2.0	2.1	2.2	2.3	2.4	2.5	2.6
8,191 to 12,285	0	0	2.0	2.1	2.1	2.2	2.3	2.3
12,286 to 18,420	0	0	0	2.1	2.1	2.1	2.2	2.2
18,421 to 27,630	0	0	0	0	2.0	2.1	2.2	2.2
27,631 to 40,945	0	0	0	0	0	2.0	2.1	2.2
40,946 to 61,520	0	0	0	0	0	0	2.0	2.1
Over 61,520	0	0	0	0	0	0	0	2.0

Drained roof area in square feet	Number of fixture units on sanitary system							
	325 to 486	487 to 732	733 to 1098	1,099 to 1644	1,645 to 2466	2,467 to 3702	3,703 to 5556	Over 5556
Up to 120	12	10.2	9.2	8.4	8.2	8.0	7.9	7.8
121 to 240	11.8	9.9	9.1	8.3	8.1	8.0	7.9	7.8
241 to 480	11.5	9.7	8.8	8.2	8.0	7.9	7.8	7.7
481 to 720	10.8	9.2	8.6	8.1	7.9	7.9	7.8	7.7
721 - 1,080	10.1	8.7	8.3	8.0	7.8	7.8	7.7	7.6
1,081 - 1,620	9.8	8.4	8.1	7.9	7.7	7.7	7.6	7.5
1,621 - 2,430	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.4
2,431 - 3,645	6.2	6.3	6.4	6.4	6.8	7.0	7.1	7.2
3,646 - 5,460	4.5	4.7	5.0	5.1	6.1	6.4	6.9	6.9
5,461 - 8,190	2.8	3.2	3.7	4.6	5.0	5.6	6.2	6.4
8,191 - 12,285	2.4	2.5	2.6	2.7	3.5	4.5	5.2	5.6
12,286 - 18,420	2.3	2.3	2.4	2.4	2.6	3.2	4.2	4.7
18,421 - 27,630	2.2	2.3	2.3	2.3	2.4	2.5	2.8	3.1
27,631 - 40,945	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4
40,946 - 61,520	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Over 61,520	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

- (1) [(2)] For a building constructed after August 1, 1996, each plumbing fixture or opening connecting to a combination sanitary and storm sewer system shall either:
 - (a) Be installed above the elevation of the cover of the nearest

- manhole serving the main; or
- (b) Discharge through a sewage ejector to the combined sewer system at an elevation high enough to prevent flooding of the building.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Section 13. House Sewer in Undisturbed or Filled Ground. (1) A house sewer laid in undisturbed ground shall be laid on at least four (4) inches of pea gravel, sand or other approved grillage.

(2) A house sewer laid in filled ground shall be embedded to the lower quadrant with at least a four (4) inch concrete pad below the invert, or other support that shall be approved by the office [department].

(3) A support in filled ground shall be on a ten (10) foot center to a solid footing, either undisturbed earth or rock.

(4) A house sewer constructed of flexible thermoplastic sewer piping shall be installed with at least six (6) inches of gravel on the bottom, top and sides of the piping.

Section 14. Storm Sewers in Undisturbed or Filled Ground. (1) A storm sewer laid in undisturbed ground shall not require grillage.

(2) A storm sewer laid in filled ground shall be embedded to the lower quadrant with at least a four (4) inch concrete pad below the invert or other support that shall be approved by the office [department].

(3) A support in filled ground shall be on a ten (10) foot center to a solid footing, either undisturbed earth or rock.

Section 15. Drainage Below Sewer Level (Public). In a public building in which the whole or part of the building drain and plumbing system lies below the level of the main sewer, sewage and waste shall be lifted by a device that complies with Sections 17 and 18 of this administrative regulation and discharged into the building [an approved artificial means and discharged into the house] sewer.

Section 16. Drainage Below Sewer Level (Residential). (1) In a home where the house sewer level is above the basement floor, waste water shall be lifted by means of an approved sump pump appropriate for that installation.

(2) The sump pit shall:

(a) Be gas and air tight; and

(b) Be constructed of:

1. [either] Poured or precast concrete;

2. [:] Approved fiberglass; or

3. Polyethylene material [with a tight fitting cover].

(3) The sump pit shall be provided with a two (2) inch vent which may also act as a waste and vent for a laundry tray.

(4) The pump discharge piping shall discharge into a two (2) inch waste pipe extended inside the building to a height at least twelve (12) inches above the outside grade.

(5) The sump pit shall be provided with a tight-fitting concrete cover.

(6) On the outside of the building, this waste piping shall connect into a four (4) inch by two (2) inch sanitary tee which shall connect into a four (4) inch P trap and then into the sanitary sewer. The four (4) inch by two (2) inch sanitary tee shall be extended at least two (2) inches above the finished grade and shall be provided with a ventilated cap.

Section 17. Sumps and Receiving Tanks. A subsoil drain shall discharge into an air tight sump or receiving tank located to receive the sewage by gravity. The sewage shall be lifted and discharged into the house sewer by a pump, ejector or an equally efficient method. Sewage sumps shall be a minimum twenty four (24) inches in diameter and no less than twenty four (24) inches in depth. Systems which rely solely on a pump shall be equipped with both an audible and visual alarm to be placed within the occupied space. The sump shall automatically discharge.

Section 18. Ejectors, Vented. (1) A sewage ejector serving a residential installation shall be vented with a two (2) inch vent.

(2)(a) Except as provided in paragraph (b) of this subsection, an ejector serving a commercial or industrial installation shall be vented with a three (3) inch vent.

(b) If a three (3) inch vent stack is serving a fixture that empties into the ejector pit and is located within twenty-five (25) feet of the pit, the ejector may be revented with a two (2) inch vent back to the three (3) inch vent stack. The ejector vent shall not be smaller than that recommended by the manufacturer of the pump.

(3) A portion of the building drainage system that is above the cover of the manhole serving the main that can flow by gravity to a sewer shall be installed for gravity flow to the combined sanitary and storm sewer, except for a system designed otherwise by a licensed professional engineer.

Section 19. Ejector Power: Motors, Compressors, and Air Tanks. (1) A motor, air compressor, or air tank shall be located where it is open for inspection and repair at all times.

(2) An air tank shall be proportioned to furnish sufficient air at suitable pressure to the ejector to completely empty the sump or storage tank with the compressor not operating.

(3) The end pressure in the tank shall not be less than two (2) pounds for each foot of height through which sewage is raised.

Section 20. Ejectors for Subsoil Drainage. If a subsoil catch basin is installed below the sewer level, an approved automatic ejector shall be used. The ejector or a device raising subsoil water shall discharge into a properly trapped fixture or into a storm-water drain.

Section 21. Drainage of Yards, Areas, Roofs, and Traps. (1) A roof, paved area, court, or courtyard shall be drained into one (1) of the following:

(a) A storm water system;

(b) A combined sewerage system; or

(c) A surface drainage area unless prohibited by the local health department or sewer district.

(2) A yard, roof, paved area, court, or courtyard [These areas] shall not be drained into a sewer intended for sewage only.

(3) Traps.

(a) If a drain is connected to a combined sewerage system, it shall be trapped.

(b) If a roof leader, conductor, or gutter opening is located more than ten (10) feet from a window, scuttle, or air shaft, a trap shall not be required.

(c) A trap shall be set below the frost line or on the inside of the building.

(d) If a drain is not connected to a combined sewer, a trap shall not be required.

Section 22. Size of Rain Water Leader. An inside leader shall not be less size than the following:

Area of Roof (In Square Feet)	Leader, Diameter (Inches)
Up to 90	1 1/2
91 to 270	2
271 to 810	3
811 to 1,800	3 1/2
1,801 to 3,600	4
3,601 to 5,500	5
5,501 to 9,600	6

Section 23. Inside Conductors or Roof Leaders. (1) If a conductor or roof leader is placed within the walls of a building, or in an interior court or ventilating pipe shaft, it shall be constructed of:

(a) Cast iron pipe;

(b) Galvanized wrought iron;

(c) Galvanized steel;

(d) Copper;

(e) Aluminum;

(f) Schedule 40 ABS/PVC DMV pipe; or

(g) Reinforced thermosetting resin pipe produced and labeled as ASTM D-2996 (red and silver thread).

~~[cast iron pipe, galvanized wrought iron, galvanized steel, copper, aluminum, schedule 40 ABS/PVC DMV pipe or reinforced thermosetting resin pipe produced and labeled as ASTM D-2996 (red and silver thread).]~~

(2) The vertical distance of PVC or ABS conductors shall not exceed forty-five (45) feet from the base to the penetration through the roof. Provisions shall be made for the expansion and contraction of plastic pipe.

Section 24. Outside Conductors. (1) If an outside sheet metal

VOLUME 33, NUMBER 12 – JUNE 1, 2007

conductor or downspout is connected to a house drain, it shall be connected by means of a cast iron pipe extending vertically at least one (1) foot above the grade line.

(2) If the downspout runs along a public driveway without a sidewalk, it shall be placed in a niche in the walk, protected by wheel guards, or enter the building through the wall at a forty-five (45) degree slope at least twelve (12) inches above the grade.

Section 25. Defective Conductor Pipes. If an existing sheet metal conductor pipe within the walls of a building becomes defective, the conductor shall be replaced by one which conforms to this administrative regulation.

Section 26. Vent Connections with Conductors Prohibited. (1) A conductor pipe shall not be used as a soil, waste or vent pipe.

(2) A soil, waste, or vent pipe shall not be used as a conductor.

Section 27. Overflow Pipes. An overflow pipe from a cistern, supply tank, expansion tank, or drip pan shall connect indirectly with a house sewer, house drain, soil or waste pipe.

Section 28. Subsoil Drains, Below Sewer Level. A subsoil drain shall discharge into a sump or receiving tank and shall be automatically lifted and discharged into the storm drainage system or upon the ground outside the building it serves.

Section 29. Approvals of New Sewer Connections to Existing Buildings. If the local health department or sanitary sewage system board, plant, district, or treatment plant owner prohibits the discharge of a basement floor drain or other apparatus into the sanitary sewer system, an existing basement floor drain or sump pump apparatus shall comply with the new construction requirements of this administrative regulation and be inspected prior to the approval of a connection for a new sewer line.

FLOYD VAN COOK, Executive Director
TIMOTHY J. LEDONNE, Commissioner
LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary

APPROVED BY AGENCY: March 12, 2007

FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502) 573-0394 EXT. 144, fax (502) 573-1057.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Plumbing
(As Amended at ARRS, May 8, 2007)

815 KAR 20:150. Inspection and tests.

RELATES TO: KRS 318.090, 318.130, 318.134, 318.140, 318.160, 318.170

STATUTORY AUTHORITY: KRS 198B.040(1), 318.130

NECESSITY, FUNCTION, AND CONFORMITY: KRS 318.130 requires the office [department], after review by the State Plumbing Code Committee, to promulgate an administrative regulation establishing the Kentucky State Plumbing Code. This administrative regulation establishes the requirements for the tests and inspections that are necessary in order to ensure compliance with 815 KAR Chapter 20, the Kentucky State Plumbing Code.

Section 1. Inspections and Tests. (1) The office shall inspect the following to ensure compliance with the State Plumbing Code:

(a) The water distribution system;

(b) The soil, waste, and vent system;

(c) The fixtures and fixture traps;

(d) Appurtenances;

(e) All connections in a plumbing system. ~~The water distribution system, the soil, waste and vent system, the fixtures and fix-~~

~~ture traps, appurtenances and all connections in a plumbing system shall be inspected and tested by the department to insure compliance.]~~ In buildings condemned by other authorities because of unsanitary conditions of the plumbing system, the alterations shall be considered as a new plumbing system.

Section 2. Material and Labor for Tests. All equipment, material and labor necessary for inspections and tests shall be furnished by the persons procuring the plumbing construction permits.

Section 3. Systems of Tests. (1) Test for the potable water supply system. The potable water supply system shall be tested and found without leaks under the normal working pressure under which the system will function.

(2) Tests for the soil, ~~[or]~~ waste, and vent system.

(a) The soil, ~~[or]~~ waste, and vent system of the plumbing system shall be tested with water or air in accordance with this administrative regulation ~~[other tests approved by the department]~~ before it is concealed or covered within the floors or walls of a building.

(b) After the plumbing fixtures have been set and their traps filled with water and before the building is occupied, the entire system, other than the house sewer, shall be subjected to a final air pressure test.

(c) It shall be the responsibility of the person who secured the plumbing construction permit to notify the office [department] representative and request a final inspection and air test upon completion of the installation.

(d) If only a portion of the plumbing fixtures are set, an air test shall be requested and given prior to the time a building is occupied. After the plumbing system is finally completed, another inspection and test shall be requested and given.

(e) The office [department] may require the removal of any clean-outs to ascertain whether or not the pressure has reached all parts of the system.

(3) Tests of the house sewer. The house sewer shall be tested with ~~[either]~~ a water, air, or ~~[a]~~ smoke test.

Section 4. Methods of Testing. (1) The potable water supply system, as well as the water service, shall be:

(a) Tested under a pressure of not less than the maximum working pressure under which it is to be used; and

(b) Free from leaks.

(2)(a) Except as provided in subsection (3) of this section, a water test shall be performed:

1. On the entire soil, ~~[or]~~ waste, and vent system; or

2. In sections.

(b) If it is applied to the entire system, all openings shall be closed, except the highest opening and the system shall be filled with water to the point of overflow.

(c) If the system is tested in sections, each opening shall be tightly plugged, except the highest opening and it shall be tested with not less than a ten (10) foot head of water. In testing successive sections, at least the upper ten (10) feet of the preceding section shall be retested.

(3) In lieu of a water test, an air pressure test may be used by attaching an air compressor or test apparatus to any suitable opening. All other inlets and outlets to the system shall be closed, forcing air into the system until there is a uniform pressure of five (5) pounds per square inch (PSI). The pressure shall be maintained for fifteen (15) minutes.

(4) The final air test shall test the entire soil, ~~[or]~~ waste, and vent system including the fixture and appurtenances by connecting an air machine to any suitable opening or outlet and applying air pressure equivalent to a one (1) inch water column. It shall be maintained for at least a fifteen (15) minute period. If there are no leaks or forcing of trap seals as may be indicated by the functioning of a drum, float, or water column, the system shall be deemed airtight.

(5) A garage drainage system shall be tested in the same manner as the soil, waste, and vent system.

(6) ~~A~~ ~~[The]~~ house sewer shall be tested by ~~[either]~~ a water, air, or ~~[a]~~ smoke test. After the sewer trench has been filled with at least two (2) feet of earth cover, it shall be retested. A four (4) inch test tee or Y connection shall be provided at the property line for testing. The

VOLUME 33, NUMBER 12 – JUNE 1, 2007

distance between cleanouts in sewers shall not exceed 150 feet.

(7) A building sewer not drained by gravity shall have a minimum of twenty-four (24) inches of cover and shall be tested with five (5) pounds per square inch for a period of fifteen (15) minutes.

Section 5. Required [Order-of] Tests. Tests shall be made separately or as follows:

- (1) The house sewer and its branches from the property line to the house drain;
- (2) The house drain including its branches;
- (3) The soil, waste, and vent system;
- (4) [as-well-as] Inside rain water conductors; and
- (5) ~~(4)~~ The final inspection and air test which shall include the complete plumbing system as required by Section 4(2) of this administrative regulation, exclusive of the house sewer.

Section 6. Tests of Alterations, Extensions, or Repairs. Any alterations, repairs, or extensions that require more than ten (10) feet of soil, waste, or vent piping[,] shall be inspected and tested as required by Section 3(2) of this administrative regulation.

Section 7. Covering of Work. The plumbing system shall not be covered until it has been inspected, tested, and approved.

Section 8. Uncovering of Work. If any part of a plumbing system is covered or concealed before being inspected, tested, and approved, it shall be uncovered, or unconcealed and tested as required.

Section 9. Defective Work. If an inspection or a test indicates defective work or material, it shall be replaced and the inspection and the test repeated.

Section 10. Testing Defective Plumbing. An air test shall be used in testing the condition of a plumbing system if there is reason to believe it has become defective.

Section 11. Inspections and Tests Not Required for Exhibition Purposes. Tests and inspections shall not be required where a plumbing system shall be used for exhibition purposes and is not directly connected to a sewerage system.

Section 12. Inspections and Tests for the Replacement of Old Plumbing Fixtures. Inspections and tests shall not be required if:

- (1) Old plumbing fixtures are replaced with new fixtures;
- (2) Faucets or valves are replaced; or
- (3) Leaks are repaired.

Section 13. Certificate of Approval. Upon the satisfactory completion and final test of the plumbing system, a certificate of approval shall be issued by the office ~~[department]~~.

FLOYD VAN COOK, Executive Director
TIMOTHY J. LEDONNE, Commissioner
LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary
APPROVED BY AGENCY: March 12, 2006
FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David Reichert, General Counsel, Office of Housing, Buildings and Construction, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502) 573-0394 ext. 144, fax (502) 573-1057.

**Environmental and Public Protection Cabinet
Department of Public Protection
Office of Housing, Buildings and Construction
Division of Fire Prevention
(As Amended at ARRS, May 8, 2007)**

815 KAR 35:060. Licensing of electrical contractors, electricians, and master electricians pursuant to KRS 227A.060.

RELATES TO: KRS 227A.010, 227A.060, 227A.100

STATUTORY AUTHORITY: KRS 227A.040(1), (8), 227A.060, 227A.100(9)

NECESSITY, FUNCTION, AND CONFORMITY: KRS **227A.040 and 227A.060 authorize** ~~[requires]~~ the Office of Housing, Buildings and Construction to promulgate administrative regulations to establish a process for the licensing of electrical contractors, electricians, and master electricians. This administrative regulation establishes the eligibility requirements and application procedures for the licensing of electrical contractors, electricians, and master electricians.

Section 1. Application Procedure. An applicant for licensure pursuant to KRS 227A.060 shall:

- (1) Complete an application as required by Section 2 of this administrative regulation;
- (2) Pay the application fee required by Section 3 of this administrative regulation;
- (3) Provide verifiable evidence of experience and training as specified in Section 4 of this administrative regulation; and
- (4) Provide evidence of passage of the examination required by Section 5 of this administrative regulation.

Section 2. Application Requirements. (1) The applicant shall complete an application form, either Form SFM-EC-2 or Form SFM-EC-3, which shall include the following information:

- (a) Applicant's name;
 - (b) Applicant's home address;
 - (c) Applicant's business address;
 - (d) Applicant's home and business telephone numbers;
 - (e) Applicant's date of birth;
 - (f) Applicant's Social Security number or employer identification number;
 - (g) Applicant's email address;
 - (h) Licenses applied for;
 - (i) For master electrician or electrician, a listing of the applicant's experience in the electrical industry, including business name and address, job title, and supervisor's name;
 - (j) For master electrician or electrician, a listing of all approved training or apprenticeship programs the applicant has completed;
 - (k) A statement confirming that the applicant is not in default on any educational loan guaranteed by the Kentucky Higher Education Assistance Authority [KHEAA] in accordance with KRS 164.772(3);
 - (l) For master electrician, electrician, and electrical contractor, a passport-sized color photograph of the applicant;
 - (m) For electrical contractor licenses, the name and license number of the master electrician who will be affiliated with the applicant; and
 - (n) For electrical contractor licenses, the name of the insurer providing the applicant's liability and workers' compensation coverage and the policy number of each coverage.
- (2) An applicant for reciprocity shall:
- (a) Comply with the requirements set forth in the reciprocity agreement between Kentucky and the state in which the applicant is licensed; and
 - (b) Submit a completed Form SFM-EC-4, which shall include:
 1. A statement confirming that the applicant is not in default on any educational loan guaranteed by the Kentucky Higher Education Assistance Authority [KHEAA] in accordance with KRS 164.772(3);
 2. A passport-sized color photograph of the applicant;
 3. For electrical contractor licenses, proof of compliance with the insurance and workers' compensation requirements established in Section 7 of this administrative regulation; and
 4. A copy of the applicant's license from the participating state.

Section 3. Application, Renewal, Reinstatement, and Late Fees. ~~[Application and Renewal Fees.]~~ (1) The application and renewal fees shall be:

- (a) \$200 for an electrical contractor's license;
 - (b) \$100 for a master electrician's license; or
 - (c) Fifty (50) dollars for an electrician's license.
- (2) Application, renewal, reinstatement, and late fees shall not be refundable.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

(3) The reinstatement fee for any lapsed license pursuant to KRS 227A.100(4) shall be equal to the license renewal fee and shall be paid in addition to the license renewal fee.

(4) The late renewal fee shall be fifty (50) dollars. If all documents required to be submitted for renewal are postmarked on or before the last day of the renewal month, the filing shall be considered timely and no late fee shall be assessed.

(5) Renewal fees for inactive licenses shall be one-half (1/2) the fee for an active license.

(6) The fee to return a license to an active status from an inactive status shall be the remaining one-half (1/2) renewal fee.

Section 4. Verification of Experience. (1) An applicant shall submit verification of experience for licensure as a master electrician or electrician.

(2) Verification shall be submitted in the form of:

(a) Tax returns or other official tax documents which indicate the applicant's occupation or the nature of the applicant's business activities, including Federal Schedule C, Form W-2, Form 1099, or local occupational tax returns;

(b) Copies of business licenses issued by a county or municipal government which did not issue electrical contractor's, master electrician's, or electrician's licenses prior to June 24, 2003 if the business license indicates the applicant operated as an electrical contractor or worker;

(c) A sworn affidavit, on the affiant's letterhead, certifying that the affiant ~~[author of the letter]~~ has personal knowledge that the applicant has worked as a master electrician or an electrician from at least one (1) of the following:

1. An electrical workers union;
2. A certified electrical inspector; or
3. An employer that ~~[which]~~ employed the applicant as an electrician or a master electrician; or

(d) Records of a branch of the United States Armed Forces which indicate the applicant performed a function which primarily involved electrical work. Experience gained while in the military shall be deemed to have been earned in Kentucky.

Section 5. Examinations. (1) Applicants for an electrical contractor's license, master electrician's license, or electrician's license shall pass an examination administered by an approved examination provider. Passing scores shall be valid for a period of three (3) years.

(2) For electrical contractor's licenses, applicants that are business entities shall designate a person to take the examination on behalf of the applicant. The designee shall be:

- (a) An owner of the applicant;
- (b) An officer of the applicant;
- (c) A director of the applicant; or
- (d) A full-time employee of the applicant.

(3)(a) If a person designated by an entity as provided in subsection (2) of this section leaves the employment or no longer maintains an interest in that entity, the entity shall designate another person who either:

1. Has passed the examination; or
 2. Successfully passes the examination within thirty (30) days.
- (b) Failure to have a designee that has passed the examination shall render the licensee no longer qualified to be licensed.

(4) Upon application by a testing agency, a national code group or by an applicant for certification, the office may recognize another examination as equivalent to an examination administered by an approved examination provider. The person or group submitting the examination shall demonstrate that the examination covers the same material and requires the same level of knowledge as the approved examinations.

Section 6. Appeal Procedure. (1) Applicants denied a license may appeal the decision to the Executive Director of the Office of Housing, Buildings and Construction. The applicant shall submit written notice of the appeal to the Office of Housing, Buildings and Construction within ten (10) days of receiving notice that the license application has been denied.

(2) The appeal shall be conducted pursuant to KRS Chapter 13B by a hearing officer appointed by the Executive Director of the

Office of Housing, Buildings and Construction.

~~[(3) The hearing officer shall submit findings of fact, conclusions of law and a recommended order to the Executive Director, who may adopt it, amend it or substitute his or her own decision based upon the evidence.]~~

Section 7. Proof of Insurance. (1) Applicants for an electrical contractor's license shall provide proof of compliance with liability insurance requirements by providing an insurance certificate showing general liability insurance coverage of at least \$500,000 issued by an insurer authorized to do business in Kentucky and naming the Office of Housing, Buildings and Construction, Electrical Licensing, as the certificate holder ~~[authorized Kentucky insurer or other insurer certified by the Kentucky Office of Insurance]~~.

(2) The applicant shall provide proof of workers' compensation insurance by providing:

(a) An insurance certificate from an authorized Kentucky insurer or other workers' compensation coverage provider; or

(b) A notarized statement ~~[letter certifying]~~ that the applicant is not required to obtain workers' compensation coverage and the reason why such coverage is not required.

(3) Electrical contractors shall require their liability and workers' compensation insurers to provide notice to the Office of Housing, Buildings and Construction if:

- (a) A policy is cancelled, terminated, or not renewed; or
- (b) The policy limits are lowered.

(4) Electrical contractors shall advise the Office of Housing, Buildings and Construction of any:

(a) Change in their insurance coverage, including cancellation or termination of any policy;

(b) Change in the insurer providing the coverage; or

(c) Changed circumstances which require the contractor to obtain coverage. ~~[change in their insurance coverage, including cancellation or termination of any policy or any change in the insurer providing the coverage.]~~

Section 8. Renewal Requirements. (1) Licenses shall be valid for one (1) year and shall be renewed on or before the last day of the licensee's birth month. For electrical contractor licenses issued to corporations, partnerships, or business entities without a birth month, the renewal month shall be the month the license was issued.

(2) The Office of Housing, Buildings and Construction may issue an initial license to an applicant for a period of up to twenty-three (23) months and may charge a pro rata initial license fee to reflect the actual term of the initial license.

(3) Licensee shall apply for renewal of their license(s) on Form SFM-EC-5 [SF-EC-5].

Section 9. Inactive License Status. (1) A licensee may request a license be placed in inactive status. A licensee shall not perform any electrical work requiring a license if the license is inactive.

(2) An electrical contractor licensee in inactive status shall not be required to maintain liability insurance or provide proof to the Office of Housing, Buildings and Construction of compliance with workers' compensation laws.

(3) Certified electrical inspectors may be licensed as an electrical contractor, master electrician, or electrician, but shall maintain that license as inactive while having an active electrical inspector certification.

(4) Performing electrical work which requires a license while holding an inactive license shall be grounds for revocation or suspension of all electrical licenses and certifications held by the licensee.

Section 10. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) Form SFM-EC-2, "Electrical Contractor's License Application", (March [February], 2007 [May 2006] edition);

(b) Form SFM-EC-3, "Master Electrician's and Electrician's License Application", (March [February], 2007 [May 2006] edition); ~~[and]~~

(c) Form SFM-EC-4, "Reciprocity Electrical License Applica-

tion," (March [February], 2007 [May 2006] edition); and
 (d) Form SFM-EC-5, "Electrical License Renewal Application,"
 (March [February], 2007 edition).

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Office of Housing, Buildings and Construction, Electrical Licensing [Section], 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405, Monday through Friday, 8 a.m. to 4:30 p.m.

FLOYD VAN COOK, Executive Director
 TIMOTHY J. LEDONNE, Commissioner
 LLOYD R. CRESS, Deputy Secretary

For TERESA J. HILL, Secretary
 APPROVED BY AGENCY: March 12, 2007

FILED WITH LRC: March 14, 2007 at 2 p.m.

CONTACT PERSON: David L. Reichert, General Counsel,
 Office of Housing, Buildings and Construction, 101 Sea Hero
 Road, Suite 100, Frankfort, Kentucky 40601-5405, phone (502)
 573-0394, fax (502) 573-1057.

CABINET FOR HEALTH AND FAMILY SERVICES
Department for Medicaid Services
Division of Long Term Care and Community Alternatives
(As Amended at ARRS, May 8, 2007)

907 KAR 1:025. Payment for services provided by an intermediate care facility for individuals with mental retardation or a developmental disability, a dually-licensed pediatric facility, an institution for mental diseases, or a nursing facility with an all-inclusive rate unit.

RELATES TO: KRS 142.363, 42 C.F.R. Parts 430, 431, 432, 433, 435, 440, 441, 442, 447, 455, 456, 42 U.S.C. 1396a, b, c, d, g, i, l, n, o, p, r, r-2, r-3, r-5, s

STATUTORY AUTHORITY: KRS 142.363(3), 194A.030(2), 194A.050(1), 205.520(3)

NECESSITY, FUNCTION, AND CONFORMITY: The Cabinet for Health and Family Services, Department for Medicaid Services has responsibility to administer the Medicaid Program. KRS 205.520(3) authorizes the cabinet by administrative regulation, to comply with any requirement that may be imposed, or opportunity presented, by federal law for the provision of medical assistance to Kentucky's indigent citizenry. This administrative regulation establishes the method for determining amounts payable by the Medicaid Program for nursing facility services provided by an intermediate care facility for individuals with mental retardation or a developmental disability, a dually-licensed pediatric facility, an institution for mental diseases, or a nursing facility with an all-inclusive rate unit.

Section 1. Definitions. (1) "Allowable cost" means that portion of a facility's cost which may be allowed by the department in establishing the reimbursement rate.

(2) "Calculated rate" means the rate effective July 1, 1999 and each July 1 thereafter for:

(a) An intermediate care facility for individuals with mental retardation or a developmental disability (ICF-MR-DD); or

(b) A nursing facility certified as:

1. A dually-licensed pediatric facility; or

2. An institution for mental diseases.

(3) "Cost-based facility" means a facility which:

(a) The department shall reimburse for all allowable costs; and

(b) Is either:

1. A dually-licensed pediatric facility;

2. An intermediate care facility for individuals with mental retardation or a developmental disability; or

3. An institution for mental diseases.

(4) "Cost report" means Cost-based Facility Reimbursement Cost Report Instructions and Cost-based Facility Reimbursement Cost Report.

(5) "Department" means the Department for Medicaid Services or its designee.

(6) "Global Insight Index[DR]" means an indication of changes

in health care costs from year to year developed by Global Insights Index [Data Resources Incorporated].

(7) "IMD" means an institution for mental diseases, excluding psychiatric hospitals.

(8) "Nursing facility" or "NF" means that:

(a) The state survey agency has:

1. Granted an NF license to a facility; and

2. Recommended the NF to the department for certification as a Medicaid provider; and

(b) The department has granted certification for Medicaid participation to the NF.

(9) "Occupancy factor" means a percentage representing:

(a) A facility's actual occupancy level; or

(b) A minimum occupancy level assigned to a facility if its occupancy level is below the minimum level established in Section 3(17) of this administrative regulation.

(10) "Prospective rate" means a payment rate for routine services based on allowable costs and other factors which, except as specified in Section 3 of this administrative regulation, shall not be retroactively adjusted, either in favor of the facility or the department.

(11) "Routine services" means services covered by the Medicaid Program pursuant to 42 C.F.R. 483.10(c)(8)(i).

(12) "State survey agency" means the Cabinet for Health and Family Services, Office of Inspector General, Division of Long-term Care.

(13) "Upper payment limit" means the aggregate payment amount as described in 42 C.F.R. 447.272 for inpatient services furnished by state-owned or operated ICF-MR-DDs.

Section 2. Certified Bed Requirements. Except for an intermediate care facility for individuals with mental retardation or a developmental disability or a nursing facility with an all-inclusive rate unit, a facility which desires to participate in the Medicaid Program shall comply with the following requirements:

(1) If the facility has less than ten (10) beds, all of its beds shall participate in the Medicare Program; or

(2) If the facility has ten (10) or more beds, it shall be required to have the greater of:

(a) Ten (10) of its Medicaid-certified beds participating in the Medicare Program; or

(b) Twenty (20) percent of its Medicaid-certified beds participating in the Medicare Program.

Section 3. Payment System for a Cost-based Facility. The department's reimbursement system shall include the specific policies, components or principles established in this section.

(1)(a) Prospective payment rates for routine services shall be set by the department on a facility-specific basis, and shall not be subject to retroactive adjustment except as specified in this section of this administrative regulation.

(b) Prospective rates shall be determined on a cost basis annually, and may be revised on an interim basis by the department.

(c) An adjustment to a prospective rate (subject to the maximum payment for that type of facility) shall be considered if:

1. The facility's increased costs are attributable to:

a. A governmentally imposed minimum wage increase, staffing ratio increase, or a level of service increase; and

b. The increase was not included in the Global Insight Index [DR];

2. A new licensure requirement or new interpretation of an existing requirement by the appropriate governmental agency as issued in an administrative regulation results in changes that affect all facilities within the class; or

3. The facility experiences a governmentally-imposed displacement of residents.

(d)1. The amount of any prospective rate adjustment resulting from a governmentally-imposed minimum wage increase or licensure requirement change or interpretation as cited in paragraph (c)(2) of this subsection of this paragraph shall not exceed the amount by which the cost increase resulting directly from the governmental action exceeds on an annualized basis the inflation allowance amount included in the prospective rate for the general cost area in which the increase occurs. For purposes of this deter-

VOLUME 33, NUMBER 12 – JUNE 1, 2007

mination, costs shall be classified into the following two (2) general areas:

- a. Salaries; and
- b. Other.

2. The effective date of an interim rate adjustment shall be the first day of the month in which the adjustment is requested or in which the cost increase occurred, whichever is later.

(2)(a) The state shall set a uniform rate year for a cost-based facility (July 1 - June 30) by taking the latest available cost data available as of May 16 of each year and trending the facility costs to July 1 of the rate year. If the latest available cost report data has not been audited or desk-reviewed prior to rate setting for the universal year beginning July 1, a prospective rate based on a cost report which has not been audited or desk-reviewed shall be subject to adjustment when the audit or desk review is completed.

(b) Partial year, or budget cost data shall be used if a full year's date is unavailable. Unaudited reports shall be subject to an adjustment to the audited amount.

(c) Other factors relating to costs.

1. If the department has made a separate rate adjustment as compensation to a facility for a minimum wage update, the department shall:

a. Not pay the facility twice for the same costs; and

b. Adjust downward the trending and indexing factors to the extent necessary to remove from the factors costs relating to the minimum wage updates already provided for by the separate rate adjustment.

2. If the trending and indexing factors include costs related to a minimum wage increase:

a. The department shall not make a separate rate adjustment; and

b. The minimum wage costs shall not be deleted from the trending and indexing factors.

3. The maximum payment amounts for the prospective universal rate year shall be adjusted each July 1 so that the maximum payment amount in effect for the rate year shall be related to the cost reports used in setting the facility rates for the rate year.

4. For purposes of administrative ease in computations, normal rounding shall be used in establishing the maximum payment amount, with the maximum payment amount rounded to the nearest five (5) cents.

(3)(a) Except as provided in paragraph (b) of this subsection, interest expense used

in setting a prospective rate shall be an allowable cost if permitted pursuant to 42 C.F.R. 413.153 and if the interest expense:

1. Represents interest on:

a. Long term debt existing at the time the provider enters the program; or

b. New long-term debt, if the proceeds are used to purchase fixed assets relating to the provision of the appropriate level of care.

(i) If the debt is subject to variable interest rates found in balloon-type financing, renegotiated interest rates shall be allowable; and

(ii) The form of indebtedness may include mortgages, bonds, notes, and debentures if the principal is to be repaid over a period in excess of one (1) year; or

2. Is for working capital and operating needs that directly relate to providing patient care. The form of indebtedness may include notes, advances and various types of receivable financing.

(b) Interest on a principal amount used to purchase goodwill or other intangible assets shall not be considered an allowable cost.

(4) The allowable cost for a service or good purchased by a facility from a related organization shall be the cost to the related organization, unless it can be demonstrated that the related organization is equivalent to a second party supplier.

(a) Except as provided in paragraph (b) of this subsection, an organization shall be considered a related organization if an individual possesses five (5) percent or more of ownership or equity in the facility and the supplying business.

(b) An organization shall not be considered a related organization if fifty-one (51) percent or more of the supplier's business activity of the type carried on with the facility is transacted with persons and organizations other than the facility and its related organiza-

tions.

(5)(a) Except as provided in paragraph (b) of this subsection, the amount allowable for leasing costs shall not exceed the amount which would be allowable based on the computation of historical costs.

(b) The department shall determine the allowable costs of an arrangement based on the costs of the original lease agreement if:

1. A cost-based facility entered into a lease arrangement as an intermediate care facility prior to April 22, 1976;

2. An intermediate care facility for individuals with mental retardation or a developmental disability entered into a lease arrangement prior to February 23, 1977; or

3. A nursing facility entered into a lease arrangement as a skilled nursing facility prior to December 1, 1979.

(6) A cost shall be allowable and eligible for reimbursement if the cost is:

(a) Reflective of the provider's actual expenses of providing a service; and

(b) Related to Medicaid patient care pursuant to 42 C.F.R. 413.9.

(7) The following costs shall be allowable:

(a) Costs to related organizations pursuant to 42 C.F.R. 413.17;

(b) Costs of educational activities pursuant to 42 C.F.R. 413.85;

(c) Research costs pursuant to 42 C.F.R. 413.90;

(d) Value of services of nonpaid workers pursuant to 42 C.F.R. 413.94;

(e) Purchase discounts and allowances, and refunds of expenses pursuant to 42

C.F.R. 413.98;

(f) Depreciation on buildings and equipment if a cost is:

1. Identifiable and recorded in the provider's accounting records;

2. Based on historical cost of the asset or, if donated, the fair market value; or

3. Prorated over the estimated useful life of the asset using the straight-line method;

(g) Interest on current and capital indebtedness; or

(h) Professional costs of services of full-time or regular part-time employees not to exceed what a prudent buyer would pay for comparable services.

(8) The following shall not be allowable costs:

(a) The value of services provided by nonpaid members of an organization if there is an agreement with the provider to furnish the services at no cost;

(b) Political contributions;

(c) Legal fees for unsuccessful lawsuits against the Cabinet for Health and Family Services;

(d) Travel and associated costs outside the Commonwealth of Kentucky to conventions, meetings, assemblies, conferences or any related activities that are not related to NF training or educational purposes; or

(e) Costs related to lobbying.

(9) To determine the gain or loss on the sale of a facility for purposes of determining a purchaser's cost basis in relation to depreciation and interest costs, the following methods shall be used for changes of ownership occurring before July 18, 1984:

(a) 1. Determine the actual gain on the sale of the facility; and

2. Add to the seller's depreciated basis two-thirds (2/3) of one (1) percent of the gain for each month of ownership since the date of acquisition of the facility by the seller to arrive at the purchaser's cost basis;

(b) Gain shall be the amount in excess of a seller's depreciated basis as computed under program policies at the time of a sale, excluding the value of goodwill included in the purchase price;

(c) A sale shall be any bona fide transfer of legal ownership from an owner to a new owner for reasonable compensation, which shall usually be fair market value. A lease purchase agreement or other similar arrangement which does not result in a transfer of legal ownership from the original owner to the new owner shall not be considered a sale until legal ownership of the property is transferred; and

(d) If an enforceable agreement for a change of ownership was

VOLUME 33, NUMBER 12 – JUNE 1, 2007

entered into prior to July 18, 1984, the purchaser's cost basis shall be determined pursuant to paragraphs (a) through (c) of this subsection.

(10) Valuation of capital assets.

(a) An increase in valuation in relation to depreciation and interest costs shall not be allowed for changes of ownership occurring after July 18, 1984 and before October 1, 1985.

(b) For bona fide changes of ownership entered into on or after October 1, 1985, the depreciation and interest costs shall be increased in valuation in accordance with 42 U.S.C. 1395x(v)(1)(O)(i).

(11)(a) A facility shall maintain and make available any records and data necessary to justify and document:

1. Costs to the facility; and
2. Services performed by the facility; and

(b) The department shall have unlimited on-site access to all of a facility's fiscal and service records for the purpose of:

1. Accounting;
2. Auditing;
3. Medical review;
4. Utilization control; and
5. Program planning.

(12) The following shall apply to an annual cost report:

(a) A year-end cost report shall contain information relating to prior year cost, and shall be used in establishing prospective rates and setting ancillary reimbursement amounts;

(b) A new item or expansion representing a departure from current service levels for which the facility requests prior approval by the department shall be so indicated with a description and rationale as a supplement to the cost report;

(c) Department approval or rejection of a projection or expansion shall be made on a prospective basis in the context that if an expansion and related costs are approved they shall be considered when actually incurred as an allowable cost. Rejection of an item or costs shall represent notice that the costs shall not be considered as part of the cost basis for reimbursement. Unless otherwise specified, approval shall relate to the substance and intent rather than the cost projection; and

(d) If a request for prior approval of a projection or expansion is made, absence of a response by the department shall not be construed as approval of the item or expansion.

(13)(a) The department shall perform a desk review of each year-end cost report and ancillary service cost to determine the necessity for and scope of an audit in relation to routine and ancillary service cost;

(b) If a field audit is not determined to be necessary, the cost report shall be settled without an audit;

(c) A desk review or field audit shall be used for purposes of verifying cost to be used in setting the prospective rate or for purposes of adjusting prospective rates which have been set based on unaudited data; and

(d) Audits may be conducted annually or at less frequent intervals.

(14) A year-end adjustment of the prospective rate and a retroactive cost settlement shall be made if:

(a) An incorrect payment has been made due to a computational error (other than an omission of cost data) discovered in the cost basis or establishment of the prospective rate;

(b) An incorrect payment has been made due to a misrepresentation on the part of a facility (whether intentional or unintentional);

(c) A facility is sold and the funded depreciation account is not transferred to the purchaser; or

(d) The prospective rate has been set based on unaudited cost reports and the prospective rate is to be adjusted based on audited reports with the appropriate cost settlement made to adjust the unaudited prospective payment amounts to the correct audited prospective payment amounts.

(15) A facility shall provide the services mandated in 42 C.F.R. 483.10(c)(8)(i).

(16) A facility shall submit to the department the data required for determining the prospective rate no later than sixty (60) days following the close of the facility's fiscal year. This time limit may be extended at the specific request of the facility with the department's

concurrence.

(17) Allowable prior year cost, trended to the beginning of the rate year and indexed for inflation, shall be subject to adjustment based on a comparison of costs with a non-state [nonstate], privately-owned facility's occupancy factor.

(a) An occupancy factor shall not be less than actual bed occupancy, except that it shall not exceed ninety-eight (98) percent of certified bed days (or ninety-eight (98) percent of actual bed usage days, if more, based on prior year utilization rates).

(b) ~~[Except for a state-owned facility,]~~ A minimum occupancy factor shall be ninety (90) percent of certified bed days for non-state, privately-owned facilities with less than ninety (90) percent certified bed occupancy.

(c) ~~[A minimum occupancy factor for a state-owned facility shall be seventy (70) percent of certified bed days.]~~

(d) ~~[The department may impose a lower occupancy factor for a newly constructed or newly participating nonstate, privately-owned facility, or for an existing nonstate, privately-owned facility suffering a patient census decline as a result of a newly constructed or opened competing facility serving the same area.]~~

(e) ~~[The department may impose a lower occupancy factor during the first two (2) full fiscal years an existing cost-based non-state, privately-owned facility participates in the program under this payment system.]~~

(18) A provider tax on a cost-based facility shall be considered an allowable cost.

(19) All other costs shall be:

- (a) Other care-related costs;
- (b) Other operating costs;
- (c) Capital costs; or
- (d) Indirect ancillary costs.

(20) Basic per diem costs for each major cost category (nursing services costs and all other costs) shall be the calculated rate arrived at after otherwise allowable costs are trended and adjusted in accordance with the:

- (a) Global Insight Index [DRI] inflation factor; and
- (b) Occupancy factor for a nonstate, privately owned facility.

(21) ~~[The DRI inflation factor applied to an ICF-MR-DD for the period beginning January 1, 2006 and ending June 30, 2006 shall be increased an additional six and eight tenths (6.8) percent.]~~

(22) ~~[Maximum allowable costs shall be the maximum amount which may be allowed to a facility as reasonable cost for the provision of a supply or service while complying with limitations expressed in related federal or state regulations.]~~

(23) ~~[(23)] Nursing services costs shall be the direct costs associated with nursing services.~~

(24) State-owned or operated ICF-MR-DD reimbursement for noncapital routine services shall be subject to an upper payment limit. The upper payment limit shall:

(a) [Shall] Be an aggregate limit on ICF-MR-DD reimbursement paid by the department;

(b) [Shall] Equal 112 percent of the average of aggregate cost for a state fiscal year;

(c) [Shall] Be revised annually by the Global Insight Index using the most recent full year of Medicaid paid days;

(d) [Shall] Not be rebased more frequently than every three (3) years; and

(e) Use as its base year the [Base-year shall be] State Fiscal Year 2005.f.;

(25) The department shall retroactively [retrospectively] cost settle state-owned or operated ICF-MR-DD reimbursement for non-capital routine services beginning with the cost report period November 1, 2005 through June 30, 2006, as mandated by the Centers for Medicare and Medicaid Services in accordance with 42 U.S.C. 1396a(a)(30). Retroactive [Retrospective] settlement shall entail:

(a) Comparing interim payments with the properly apportioned cost of Medicaid services rendered. Cost report data shall be used to determine properly apportioned costs;

(b) A tentative cost report settlement based upon:

1. Eighty (80) percent of any amount due the facility after a preliminary review is performed; or
2. 100 percent settlement of any liability due the department;

and

(c) A final cost report settlement after the allowed billing period has elapsed for the dates of service identified within the cost report.

(25) The department, regarding state-owned or operated ICF-MR-DD reimbursement for noncapital routine services shall:

(a) [Shall] Use projected data in order to approximate as closely as possible an interim rate expected to correspond to post-settlement cost; and

(b) [May] Adjust interim rates up or down if [as] necessary to approximate a rate corresponding as close as possible to anticipated postsettlement cost.

Section 4. Prospective Rate Computation for a Cost-based Facility. The prospective rate for a cost-based facility shall reflect the following:

(1) The adjusted allowable cost for the facility; and

(2) Except for a state-owned or operated facility, the facility's occupancy factor. A state-owned or operated facility's occupancy factor shall not be factored into the facility's prospective rate.

Section 5. Ancillary Services. (1) Except for an intermediate care facility for individuals with mental retardation or a developmental disability, an ancillary service shall be a direct service for which a charge is customarily billed separately from a per diem rate including:

(a) Ancillary services pursuant to 907 KAR 1:023; or

(b) Laboratory procedures or x-rays if ordered by a:

1. Physician;

2. An advanced registered nurse practitioner (ARNP) if the laboratory test or x-ray is within the scope of the ARNP's practice; or

3. Physician assistant if:

a. Authorized by the supervising physician; and

b. The laboratory test or x-ray is within the scope of the physician assistant's practice.

(2) For an intermediate care facility for individuals with mental retardation or a developmental disability, an ancillary service shall be a direct service for which a charge is customarily billed separately from a per diem rate including:

(a) Ancillary services identified in 907 KAR 1:023;

(b) Laboratory procedures or x-rays if ordered by a:

1. Physician;

2. An ARNP if the laboratory test or x-ray is within the scope of the ARNP's practice; or

3. Physician assistant if:

a. Authorized by the supervising physician; and

b. The laboratory test or x-ray is within the scope of the physician assistant's practice; or

(c) Psychological or psychiatric therapy.

(3) Ancillary service.

(a) Reimbursement shall be subject to a year-end audit, retroactive adjustment, and final settlement.

(b) Costs shall be subject to allowable cost limits pursuant to 42 C.F.R. 413.106.

(4) For ancillary services, the department shall utilize an NF's prior year cost-to-charge ratio, based on the prior year's cost report as of May 31, as the percentage to be used for interim reimbursement purposes for the following year. (For example if an NF's cost-to-charge ratio for SFY 2001 is seventy-five (75) percent, the department shall reimburse the NF, on an interim basis, seventy-five (75) percent of billed charges for SFY 2002.)

(5) An NF without a prior year cost report may submit to the department a percentage to be used for interim reimbursement purposes for ancillary services.

(6) If an NF has been reimbursed for ancillary services at an interim percentage above its allowable cost-to-charge ratio for a given year, the department shall decrease the interim percentage for the following year by no more than twenty-five (25) percentage points unless:

(a) A retroactive adjustment of an NF's reimbursement for the prior year reveals an overpayment by the department exceeding twenty-five (25) percent of billed charges; or

(b) An evaluation of an NF's current billed charges indicates that the NF's charges exceed, by greater than twenty-five (25)

percent, average billed charges for other comparable facilities serving the same area.

Section 6. Reimbursement for a Nursing Facility With a Distinct Part Ventilator Unit. (1) A nursing facility recognized as providing distinct part ventilator dependent care shall be paid at an all-inclusive (excluding drugs which shall be reimbursed through the pharmacy program) fixed rate for services provided in the distinct part ventilator unit.

(2) A distinct part ventilator unit shall:

(a) Have a minimum of twenty (20) beds;

(b) Maintain a census of fifteen (15) patients; and

(c) Base the patient census upon:

1. The quarter preceding the beginning of the rate year; or

2. The quarter preceding the quarter for which certification is requested if the facility did not qualify for participation as a distinct part ventilator care unit at the beginning of the rate year.

(3)(a) The fixed rate for a hospital-based facility shall be \$583.82 per day.

(b) The department shall reimburse a freestanding facility:

1. A fixed rate of \$317.29 per day; and

2. An add-on to the fixed rate in accordance with KRS 142.363.

(4) The fixed rates established in subsection (3) of this section shall be increased or decreased based on the Data Resource Incorporated rate of inflation indicator for the nursing facility services for each rate year.

(5) Costs of distinct part ventilator nursing facility units shall be excluded from allowable costs for purposes of rate setting and settlement of cost-based nursing facility cost reports.

Section 7. Reimbursement for a Nursing Facility with a Brain Injury Unit. (1) In order to participate in the Medicaid Program as a brain injury provider, a nursing facility with a distinct part brain injury unit shall:

(a) Be Medicare and Medicaid certified;

(b) Designate as a brain injury unit at least ten (10) certified beds that are physically contiguous and identifiable;

(c) Be accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) after the first year of participation; and

(d) Establish written policies regarding administration and operations, the facility's governing authority, quality assurance, and program evaluation.

(2) Except as provided in subsection (3) of this section, a nursing facility with a Medicaid certified brain injury unit providing preauthorized specialized rehabilitation services for persons with brain injuries shall be paid at an all-inclusive (excluding drugs which shall be reimbursed through the pharmacy program) fixed rate which shall be set at ~~\$475~~ ~~[\$360]~~ per diem for services provided in the brain injury unit.

(3) A facility providing preauthorized specialized rehabilitation services for persons with brain injuries with rehabilitation complicated by neurobehavioral sequelae shall be paid an all-inclusive (excluding drugs which shall be reimbursed through the pharmacy program) negotiated rate which shall not exceed the facility's usual and customary charges.

Section 8. Appeal Rights. A participating facility may appeal department decisions as to the application of this administrative regulation as it impacts the facility's reimbursement in accordance with 907 KAR 1:671, Sections 8 and 9.

Section 9. Reimbursement for Required Services Under the Preadmission Screening Resident Review (PASRR) for a Nursing Facility With a Ventilator Unit, a Nursing Facility With a Brain Injury Unit, an IMD, or a Dually-licensed Pediatric Facility.

(1) Prior to an admission of an individual, a facility shall conduct a level I PASRR in accordance with 907 KAR 1:755, Section 4.

(2) The department shall reimburse a facility for a service delivered to an individual if the facility complies with the requirements of 907 KAR 1:755.

(3) Failure to comply with 907 KAR 1:755 may be grounds for termination of a facility's participation in the Medicaid Program.

VOLUME 33, NUMBER 12 – JUNE 1, 2007

Section 10. Reimbursement Provisions. (1) Each of the following types of facilities participating in the Medicaid Program shall be reimbursed in accordance with this administrative regulation:

- (a) A nursing facility with a certified brain injury unit;
- (b) A nursing facility with a distinct part ventilator unit;
- (c) A nursing facility designated as an institution for mental diseases;
- (d) A dually-licensed pediatric facility; or
- (e) An intermediate care facility for individuals with mental retardation or a developmental disability.

(2) A payment made to a facility governed by this administrative regulation shall:

- (a) Be made in accordance with the requirements established in 907 KAR 1:022; and
- (b) Be subject to the limits established in 42 C.F.R. 447.272.

Section 11. Supplemental Payments to Dually-licensed Pediatric Facilities.

(1) Beginning July 1, 2002 and annually thereafter, the department shall establish a pool of \$550,000 to be distributed to facilities qualifying for supplemental payments in accordance with subsection (2) of this section.

(2) Based upon its pro rata share of Medicaid patient days compared to total patient days of all qualifying facilities, a dually-licensed pediatric facility shall qualify for a supplemental payment if:

- (a) Funding is available; and
- (b) The facility:
 - 1. Is located within the Commonwealth of Kentucky;
 - 2. Has a Medicaid occupancy rate at or above eighty-five (85) percent;
 - 3. Only provides services to children under age twenty-one (21); and
 - 4. Has forty (40) or more licensed beds.

(3) A supplemental payment to a facility meeting the criteria established in subsection (2) of this section shall:

- (a) Apply to services provided on or after July 1, 2002;
- (b) Be made on a quarterly basis; and
- (c) Not be subject to the cost settlement provisions established in Section 3 of this administrative regulation.

Section 12. Incorporation by Reference.

(1) The following material is incorporated by reference:

- (a) "Cost-based Facility Reimbursement Cost Report Instructions", April 2000 Edition; and
- (b) "Cost-based Facility Reimbursement Cost Report", April 2000 Edition.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Department for Medicaid Services, 275 East Main Street, 6th Floor West, Frankfort, Kentucky 40621, Monday through Friday, 8 a.m. to 4:30 p.m.

GLENN JENNINGS, Commissioner
MARK D. BIRDWHISTELL, Secretary

APPROVED BY AGENCY: February 26, 2007

FILED WITH LRC: March 1, 2007 at 4 p.m.

CONTACT PERSON: Jill Brown, Cabinet Regulation Coordinator, Cabinet for Health Services, Office of the Counsel, 275 East Main Street - 5W-B, Frankfort, Kentucky 40621, phone (502) 564-7905, fax (502) 564-7573.