401 KAR 50:015. Documents incorporated by reference.

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120
STATUTORY AUTHORITY: KRS 224.10-100
NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Environmental and Public Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides for the incorporation by reference of documents referred to within these administrative regulations.

Section 1. Code of Federal Regulations.

(1) The following documents from the "Code of Federal Regulations" which are in effect as of October 1, 1987, are incorporated herein by reference:

(a) 40 C.F.R. 50:

1. Appendix A: Reference Method for the Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method).

2. Appendix B: Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method).

3. Appendix C: Measurement Principle and Calibration Procedure for the Measurement of Carbon Monoxide in the Atmosphere (Nondispersive Infrared Photometry).

4. Appendix D: Measurement Principle and Calibration Procedure for the Measurement of Ozone in the Atmosphere.

5. Appendix E: Reference Method for the Determination of Hydrocarbons Corrected for Methane.

6. Appendix F: Measurement Principle and Calibration Procedure for the Measurement of Nitrogen Dioxide in the Atmosphere (Gas Phase Chemiluminescence).

7. Appendix G: Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air.

8. Appendix H: Interpretation of the National Ambient Air Quality Standards for Ozone.

9. Appendix J: Reference Method for the Determination of Particulate Matter as PM_{10} in the Atmosphere.

10. Appendix K: Interpretation of the National Ambient Air Quality Standards for Particulate Matter.

(b) 40 C.F.R. 58: Appendix B: Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring.

(c) 40 C.F.R. 60:

1. Appendix A: Reference Methods:

a. Method 1 - Sample and Velocity Traverses for Stationary Sources.

b. Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube).

c. Method 2A - Direct Measurement of Gas Volume through Pipes and Small Ducts.

d. Method 2B - Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerators.

e. Method 3 - Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight.

f. Method 3A - Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure).

g. Method 4 - Determination of Moisture Content in Stack Gases.

h. Method 5 - Determination of Particulate Emissions from Stationary Sources.
i. Method 5A - Determination of Particulate Emissions from the Asphalt Processing and Asphalt Roofing Industry.
j. Method 5B - Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources.
k. Method 5D - Determination of Particulate Matter Emissions from Positive Pressure Fabric Filters.
l. Method 5E - Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry.
m. Method 5F - Determination of Nonsulfate Particulate Matter from Stationary Sources.
n. Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources.
o. Method 6A - Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide Emissions from Fossil Fuel Combustion Sources,
p. Method 6B - Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources.
q. Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).
r. Method 7 - Determination of Nitrogen Oxide Emissions from Stationary Sources.
s. Method 7A - Determination of Nitrogen Oxide Emissions from Stationary Sources - Ion Chromatographic Method.
t. Method 7B - Determination of Nitrogen Oxide Emissions from Stationary Sources (Ultraviolet Spectrophotometry).
u. Method 7C - Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline - Permanganate/Colorimetric Method.
v. Method 7D - Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline - Permanganate/Ion Chromatographic Method.
w. Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure).
x. Method 8 - Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources.
y. Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources.
z. Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources.
aa. Method 10A - Determination of Carbon Monoxide emissions in Certifying Continuous Emission Monitoring Systems at Petroleum Refineries.
bb. Method 11 - Determination of Hydrogen Sulfide Content of Fuel Gas Streams in Petroleum Refineries.
cc. Method 12 - Determination of Inorganic Lead Emissions from Stationary Sources.
dd. Method 13A - Determination of Total Fluoride Emissions from Stationary Sources - SPADNS Zirconium Lake Method.
ee. Method 13B - Determination of Total Fluoride Emissions from Stationary Sources - Specific Ion Electrode Method.
ff. Method 14 - Determination of Fluoride Emissions from Potroom Roof Monitors for Primary Aluminum Plants.
gg. Method 15 - Determination of Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide Emissions from Stationary Sources.

hh. Method 15A - Determination of Total Reduced Sulfur Emissions from Sulfur Recovery Plants in Petroleum Refineries.
ii. Method 16 - Semicontinuous Determination of Sulfur Emissions from Stationary Sources.
jj. Method 16A - Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger Technique).
kk. Method 16B - Determination of Total Reduced Sulfur Emissions from Stationary Sources.
ll. Method 17 - Determination of Particulate Emissions from Stationary Sources (In-stack Filtration Method).
mm. Method 18 - Measurement of Gaseous Organic Compound Emissions by Gas Chromatography.
nn. Method 19 - Determination of Sulfur Dioxide Removal Efficiency and Particulate, Sulfur Dioxide and Nitrogen Oxides Emission Rates from Electric Utility Steam Generators.
oo. Method 20 - Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines.
pp. Method 21 - Determination of Volatile Organic Compounds Leaks.
qq. Method 22 - Visual Determination of Fugitive Emissions from Material Processing Sources.
rr. Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings.
ss. Method 24A - Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings.
tt. Method 25 - Determination of Total Gaseous Nonmethane Organic Emissions as Carbon.
uu. Method 25A - Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer.
vv. Method 25B - Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer.
ww. Method 27 - Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test.

2. Appendix B: Performance Specifications:
a. Performance Specification 1 - Specifications and test procedures for opacity continuous emission monitoring systems in stationary sources.
b. Performance Specification 2 - Specifications and test procedures for sulfur dioxide and nitric oxides continuous emission monitoring systems in stationary sources.
c. Performance Specification 3 - Specifications and test procedures for oxygen and carbon dioxide continuous emission monitoring systems in stationary sources.
d. Performance Specification 4 - Specifications and test procedures for carbon monoxide continuous emission monitoring systems in stationary sources.
e. Performance Specification 5 - Specifications and test procedures for TRS continuous emission monitoring systems in stationary sources.

3. Appendix C: Determination of Emission Rate Change.

4. Appendix F: Quality Assurance Procedures: Procedure 1 - Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination.

(d) 40 C.F.R. 61.

1. Appendix B: Test Methods:
a. Method 101 - Determination of particulate and gaseous mercury emissions from chlor-alkali plants (air streams).

b. Method 101A - Determination of particulate and gaseous mercury emissions from sewage sludge incinerators.
c. Method 102 - Determination of particulate and gaseous mercury emissions from chlor-alkali plants (hydrogen streams).
d. Method 103 - Beryllium screening method.
e. Method 104 - Reference method for determination of beryllium emissions from stationary sources.
f. Method 105 - Determination of mercury in wastewater treatment plant sewage sludges.
g. Method 106 - Determination of vinyl chloride from stationary sources.
h. Method 107 - Determination of vinyl chloride content of in-process wastewater samples, and vinyl chloride content of polyvinyl chloride resin, slurry, wet cake, and latex samples.
i. Method 107A - Determination of vinyl chloride content of solvents, resin-solvent solution, polyvinyl chloride resin, resin slurry, wet resin, and latex samples.
j. Method 108 - Determination of particulate and gaseous arsenic emissions.
k. Method 108A - Determination of arsenic content in ore samples from nonferrous smelters.
l. Method 111 - Determination of polonium - 210 emissions from stationary sources.

2. Appendix C: Quality Assurance Procedures:
a. Procedure 1 - Determination of adequate chromatographic peak resolution.
b. Procedure 2 - Procedure for field auditing GC analysis.

(2) Copies may be obtained from: Office of the Federal Register, National Archives and Records Service, 8th and Pennsylvania Avenue, NW, Washington, D.C. 20408; Phone (202) 523-5215.

Section 2. Association of Official Analytical Chemists. The following document from the Association of Official Analytical Chemists is incorporated herein by reference:

(1) Method 9 - Spectrophotometric Molybdovanadophosphate from "Official Method of Analysis" of the Association of Official Analytical Chemists, 11th Edition.

(2) Copies may be obtained from: Association of Official Analytical Chemists, Box 540, Benjamin Franklin Station, Washington, D.C. 20014; Phone (202) 245-1191.

Section 3. American Society for Testing and Materials. The following documents from the appropriate "Book of ASTM Standards" in which the standard appears from the American Society for Testing and Materials are incorporated herein by reference:

(1) ASTM Standards:
(a) A 99-66(71) Standard Specification for Ferromanganese.
(b) A 100-69(74) Standard Specification for Ferrosilicon.
(c) A 101-73 Standard Specification for Ferrochromium.
(d) A 482-66(71) Standard Specification for Ferrochrome-Silicon.
(e) A 483-64(74) Standard Specification for Silicomanganese.
(f) A 495-64(70) Standard Specification for Calcium-Silicon and Calcium-Manganese-Silicon.
(g) D 86-82 Standard Method for distillation of Petroleum Products.
(h) D 240-76 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter.
(i) D 322-67(77) Standard Test Method for Gasoline Diluent in Used Gasoline Engine Oils by Distillation.
(j) D 323-82 Test Method for Vapor Pressure of Petroleum Products (Reid Method).
(k) D 388-84 Standard Specification for Classification of Coals by Rank.

(l) D 396-84 Standard Specifications for Fuel Oils.
(m) D 737-75 Standard Test Method for Air Permeability of Textile Fabrics.
(n) D 1072-80 Standard Method for Total Sulfur in Fuel Gases.
(o) D 1137-53(75) Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer.
(p) D 1475-60(80) Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products.
(q) D 1644-75 Standard Test Methods for Nonvolatile Content of Varnishes.
(r) D 1826-64(75) Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter.
(s) D 1945-64(73) Standard Method for Analysis of Natural Gas by Gas Chromatography.
(t) D 1946-67(72) Standard Method for Analysis of Reformed Gas by Gas Chromatography.
(u) D 2015-66(72) Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter.
(v) D 2267-83 Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography.
(w) D 2369-73 Standard Test Method for Volatile Content of Paints.
(x) D 2382-83 Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-precision Method).
(y) D 2504-83 Standard Test Method for Noncondensable Gases in C_3 and Lighter Hydrocarbon Products by Gas Chromatography.
(z) D 2584-68(79) Standard Test Method for Ignition Loss of Cured Reinforced Resins.
(aa) D 2880-78 Standard Specification for Gas Turbine Fuel Oils.
(bb) D 2879-83 Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperatures of Liquids by Isoteniscope.
(cc) D 3031-81 Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation.
(dd) D 3176-74 Standard Method for Ultimate Analysis of Coal and Coke.
(ee) D 3178-73 Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke.
(ff) D 3246-81 Standard Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry.
(gg) D 3431-80 Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons.
(hh) D 4084-82 Standard Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method).
(ii) E 123-78 Standard Specification for Apparatus for Determination of Water by Distillation.
(jj) E 168-67(77) Standard Recommended Practices for General Techniques of Infrared Quantitative Analysis.
(kk) E 169-63(81) Standard Recommended Practices for General Techniques of Ultraviolet Quantitative Analysis.
(ll) E 260-73 Standard Recommended Practice for General Gas Chromatography Procedures.

(2) Copies may be obtained from: American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103; Phone (215) 299-5400.

Section 4. Technical Association of the Pulp and Paper Industry. The following document from the Technical Association of the Pulp and Paper Industry (TAPPI) is incorporated herein by reference:

(1) T624 os-68 - Analysis of Soda and Sulfate - White and Green Liquors. This reference is also numbered ANSI P3.6-1970 (American National Standards Institute).

(2) Copies may be obtained from: TAPPI, 1 Dunwood Park, Atlanta, Georgia 30341.

Section 5. EPA. The following documents from the U. S. EPA are incorporated herein by reference:

(1)

(a) Guideline on Air Quality Models (Revised), EPA-450/2-78-027R, OAQPS No. 1.2-080R, July, 1986, And Supplement A to the Guideline on Air Quality Models (Revised), July 1987.

(b) Workbook for Comparison of Air Quality Models, EPA-450/2-78-028a, OAQPS No. 1.2-097, May, 1978.

(c) Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment, Appendix B, EPA-450/2-78-036, OAQPS No. 1.2-111, June, 1978.

(d) Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems, EPA-450/2-78-051, OAQPS No. 1.2-119, December, 1978.

(e) Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals, EPA-450/2-77-026, OAQPS No. 1.2-082, October, 1977.

(f) Guidelines for Use of Fluid Modeling to Determine Good Engineering Practice Stack Height, EPA 450/4-81-003, PB 82-145327, July, 1981.

(g) Guidelines for Fluid Modeling of Atmospheric Diffusion, EPA-600/8-81-009, PB 81-201410, April, 1981.

(2) Copies may be obtained from: U. S. EPA, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711 and the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161.

Section 6. American Association of State Highway and Transportation Officials. The following document from the American Association of State Highway and Transportation Officials (AASHTO) is incorporated herein by reference:

(1) AASHTO T 59-78 Standard Method of Test for Testing Emulsified Asphalt.

(2) Copies may be obtained from: American Association of State Highway and Transportation Officials, 444 N. Capitol Avenue, Washington, D.C. 20001.

Section 7. Federal Test Method Standard. The following document from the Federal Test Standard is incorporated herein by reference:

(1) Federal Test Method Standard No. 141a, Method 4082.1, "Water in Paints and Varnishes (Karl Fischer Titration Method)."

(2) Single copies may be obtained from:

(a) General Services Administration Regional Offices; or

(b) Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.

Section 8. Kentucky Division for Air Quality. The following documents from the Kentucky Division for Air Quality are incorporated herein by reference:

(1)

(a) Kentucky Method 50: Kentucky Division of Air Pollution Control Reference Method 50, "Determination of Total Particulate Emissions from Stationary Sources."

(b) Kentucky Method 90: Kentucky Division of Air Pollution Control Reference Method 90, "Determination of Total Gaseous Organic Emissions from Stationary Sources."

(c) Kentucky Method 91: Kentucky Division of Air Pollution Control Reference Method 91, "Alternate Test Method for the Determination of Total Gaseous Organic Emissions from Stationary Sources."

(d) Kentucky Method 95: Kentucky Division of Air Pollution Control Reference Method 95, "Determination of Gasoline Vapor Emissions from Bulk Terminals."

(e) Kentucky Method 130: Kentucky Division of Air Pollution Control Reference Method 130, "Determination of Gaseous Fluoride Emissions from Stationary Sources."

(f) Kentucky Method 150(F-1): Kentucky Division of Air Pollution Control Reference Method 150(F-1), "Visual Determination of Intermittent Opacity Emissions from Stationary Sources."

(2) Copies may be obtained from: Division for Air Quality, 300 Sower Boulevard, Frankfort Kentucky 40601.

Section 9. American National Standards Institute. The following document from the American National Standards Institute is incorporated herein by reference:

(1) Voluntary Product Standard PS 59-73 - Prefinished Hardboard Paneling. This reference is also numbered ANSI A135.5-1973 (American National Standards Institute).

(2) Copies may be obtained from: American National Standards Institute, 1430 Broadway, New York, New York 10018.

Section 10. American Public Health Association. The following document from the American Public Health Association, American Water Works Association and Water Pollution Control Federation is incorporated herein by reference:

(1) Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980:

(a) Method 209A. Total Residue Dried at 103-105C.

(b) Method 209C. Total Filtrable Residue Dried at 103-105C.

(2) Copies may be obtained from: American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C. 20005.

Section 11. American Petroleum Institute. The following document from the American Petroleum Institute is incorporated herein by reference:

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980.

(2) Copies may be purchased from: American Petroleum Institute, 1220 L Street N.W., Washington, D.C. 20005.

Section 12. Availability. Copies of the material incorporated by reference in this administrative regulation shall be available for public review at the following offices of the Division for Air Quality:

(1) Director's Office, Division for Air Quality, 300 Sower Boulevard, Frankfort Kentucky 40601, (502) 564-3999;

(2) Ashland Regional Office, 1550 Wolohan Drive, Suite 1 Ashland, Kentucky 41102-8942, (606) 929-5285;

(3) Bowling Green Regional Office, 2642 Russellville Road, Bowling Green, Kentucky 42101, (270) 746-7475;

(4) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

(5) Frankfort Regional Office, 300 Sower Boulevard, Frankfort Kentucky 40601, (502) 564-3358;

(6) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

(7) London Regional Office, 875 S. Main Street, London, Kentucky 40741 (606) 330-2080;

(8) Owensboro Regional Office, 3032 Alvey Park Drive West, Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; and

(9) Paducah Regional Office, 130 Eagle Nest Drive, Paducah, Kentucky 42003, (270) 898-8468.

(5 Ky.R. 354; 777; eff. 6-6-1979; 7 Ky.R. 244; eff. 12-3-1980; 8 Ky.R. 1035; 9 Ky.R. 345; eff. 9-22-1982; 10 Ky.R. 628; eff. 3-1-1984; 11 Ky.R. 776; 1045; eff. 1-7-1985; 1450; eff. 6-4-1985; 13 Ky.R. 267; eff. 9-4-1986; 1240; eff. 2-10-1987; 14 Ky.R. 1589; eff. 4-14-1988; 15 Ky.R. 379; eff. 10-26-1988; TAm eff. 8-9-2007; TAm eff. 5-20-2010; TAm eff. 9-16-2013; TAm eff. 7-8-2016; Crt eff. 11-21-2018.)