

401 KAR 48:170. Technical requirements for residual landfills.

RELATES TO: KRS 224.01, 224.10, 224.40, 224.43, 224.99

STATUTORY AUTHORITY: KRS 224.10-100, 224.40-305

CERTIFICATION STATEMENT:

NECESSITY, FUNCTION, AND CONFORMITY: KRS Chapter 224 requires the cabinet to adopt rules and administrative regulations for the management, processing or disposal of wastes. KRS 224.40-305 requires that persons engaging in the management, processing and disposal of waste obtain a permit. This chapter establishes the minimum technical standards for solid waste sites or facilities. This administrative regulation sets forth the technical requirements for residual landfills.

Section 1. Design Requirements. The engineering design shall demonstrate compliance with the environmental performance standards in 401 KAR 47:030 and the siting standards of 401 KAR 48:050 considering the following:

- (1) The physical and chemical characteristics of the waste, including compatibility of the waste with the liner and cover materials and water that may come in contact with the waste;
- (2) Volume of waste;
- (3) The climatic conditions in the area;
- (4) The permeability of the liner material. The liner, if required, shall assure containment of the waste on site and compliance with the environmental performance standards of 401 KAR 47:030;
- (5) The properties of the soil underlying the facility;
- (6) Hydrogeologic characteristics of the facility including quality, quantity, current use and direction of groundwater flow;
- (7) The design of the facility leachate control system, run-off control system, and gas migration control, if required, as it relates to the physical and chemical characteristics of the waste, the climatic conditions of the specific location, the volume of leachate and contaminated run-off collected at the facility;
- (8) The proximity to surface water and groundwater;
- (9) The potential for gas emissions and odors;
- (10) Any additional requirements specified by the cabinet.

Section 2. Operating Requirements.

- (1) The owner or operator of a residual landfill shall operate the facility in accordance with the requirements of KRS Chapter 224 and the waste management administrative regulations, the conditions of the solid waste permit issued by the cabinet, and the operational plan filed with and approved by the cabinet.
- (2) The owner or operator of a residual landfill shall operate the facility in such a manner as to ensure compliance with the environmental performance standards in 401 KAR 47:030.
- (3) The owner or operator of the facility shall inspect the site and operation at a sufficient frequency to ensure compliance with the applicable environmental performance standards in 401 KAR 47:030.
- (4) The owner or operator shall have a sign located at the entrance. The sign shall indicate the landfill name, the names of the owner and the operator, the hours that the landfill is accepting wastes, the permit number, the contact person and the emergency telephone number.
- (5) Records and reports shall be maintained and submitted in accordance with the requirements of 401 KAR 47:190, Section 8.
- (6) The cabinet may place additional requirements on the owner or operator of a residual landfill in addition to those stated where necessary to ensure compliance with the

applicable environmental performance standards in 401 KAR 47:030.

Section 3. Closure and Closure Care Requirements.

(1) A residual landfill shall be closed in a manner that shall ensure compliance with the applicable environmental performance standards in 401 KAR 47:030. The closure shall include the placement of a final cover over the facility as specified in the approved design of the site.

(2) Any necessary corrective work required by the cabinet shall be performed before the residual landfill is accepted as closed and closure financial responsibility funds are released.

(3) The closure plan shall be prepared to specify the function and design of the final cover for the facility. The closure design shall ensure compliance with the environmental performance standards in 401 KAR 47:030 considering:

- (a) The type and amount of waste in the facility;
- (b) The mobility and expected rates of migration of the waste or leachate constituents;
- (c) The site location, topography, surrounding land use, and final site use;
- (d) The climatic conditions in the area;
- (e) The characteristics of the cover material including its chemical and physical composition, erodibility, slope stability, final surface contours, thickness, porosity, permeability, slope, length of run of slope, and type of vegetation on the cover; and
- (f) The geologic and soil profiles and surface and subsurface hydrology of the site.

(4) A residual landfill shall be maintained for a minimum of two (2) years following the closure of the site in a manner that complies with the applicable environmental performance standards in 401 KAR 47:030 and in accordance with any approved closure plan approved by the cabinet.

(5) The owner or operator of a residual landfill shall record a notice in the deed that shall in perpetuity notify any potential purchaser of the property of the location and time of the operation of the facility, the nature of the waste placed in the site and a caution against future disturbance of the area. Such notice shall be recorded in accordance with KRS Chapter 382 and proof of recording shall be submitted to the cabinet prior to the cabinet's acceptance of certification of closure.

(6) The cabinet may release the closure bonds two (2) years following the cabinet's acceptance of the owner's certification of closure. These funds shall be released upon inspection of the permit records and the site to determine that it is in compliance with all regulatory requirements and has at least a ninety (90) percent permanent vegetative cover.

(7) The owner or operator shall implement the approved closure care plan in accordance with the closure care schedule and shall perform other necessary corrective work required by the cabinet, if any, before the landfill closure care certification is accepted.

Section 4. Display of Permit. One (1) copy of the permit application shall be returned to the permittee. The permit with all applicable conditions shall be conspicuously displayed at the solid waste site or facility for the duration of the permit. A copy of the approved application, including plans, shall be available at the site.

(401 KAR 048:170. 16 Ky.R. 1787; 2220; 2382; eff. 5-8-1990; Crt eff. 8-13-2018; Crt eff. 7-22-2025.)