Kansas Administrative Regulations

Department of Health and Environment

Article 29.—Solid Waste Management—Part 7. Municipal Solid Waste Landfills.

28-29-121. Closure requirements.

(a) Upon ceasing to receive waste, the unit shall be covered by a final cover consisting of a low permeability layer overlaid by a final protective layer constructed in accordance with the requirements of this regulation.

(b) Not later than 30 days after placement of the final lift of solid waste, closure activities shall begin, except as provided in subsection (c) of this regulation.

(c) The deadline for construction of the final cover may be extended by the director if:

(1) the unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes;

(2) leachate is to be recirculated for a period after final receipt of waste in accordance with provisions in K.A.R. 28-29-104(i)(6); or

(3) the owner or operator demonstrates to the department that initiation of closure will, of necessity, take longer than 30 days.

(d) For any unit receiving an extension of the closure deadline as provided in subsection (c), it may be required by the director that the owner or operator comply with some or all of the provisions for intermediate cover in K.A.R. 28-29-108(c).

(e) For each MSWLF receiving waste after October 9, 1993, the low permeability layer shall consist of one of the following:

(1) a geomembrane underlaid by 0.45 meters (18 inches) of compacted soil with a permeability of 1×10^{-5} centimeters per second or less if geomembrane is used in the bottom liner system; or

(2) the lesser of:

(i) 0.45 meters (18 inches) of compacted soil with a permeability less than or equal to the bottom liner system or natural subsoils; or

(ii) 0.45 meters (18 inches) of compacted soil with a permeability of 1×10^{-5} centimeters per second or less.

(f) If a geomembrane is used in the low permeability layer, it shall be constructed in accordance with the following standards.

(1) The geomembrane shall have strength to withstand the normal stresses imposed by the waste stabilization process.

(2) The geomembrane shall be placed over a prepared base free from sharp objects and other materials that may cause damage.

(3) The effects of landfill gas below the geomembrane shall be addressed.

(4) The effect of drainage through the final protective cover onto the geomembrane shall be addressed.

(g) The final protective layer shall be constructed in accordance with the following standards.

(1) The final protective layer shall cover the entire low permeability layer.

(2) The thickness of the final protective layer shall be at least as thick as the frost penetration depth at the landfill site and shall minimize root penetration of the low permeability layer.

(3) The final protective layer shall consist of soil material capable of supporting vegetation.

(h) The final protective layer shall be placed as soon as possible after placement of the low permeability layer to prevent desiccation, cracking, freezing or other damage to the low permeability layer.

(i) The owner or operator shall prepare a written closure plan that describes the steps necessary to close each MSWLF unit at any point during its active life in accordance with the cover design requirements. The closure plan, at a minimum, shall include the following information:

(1) plans for the final contours, type and depth of cover material, landscaping, and access control;

(2) an estimate of the largest area of the MSWLF unit ever requiring a final cover at any time during the active life;

(3) an estimate of the maximum inventory of wastes ever onsite over the active life of the MSWLF facility;

(4) final surface water drainage patterns and run-off retention basins;

(5) plans for the construction of liners, leachate collection and treatment systems, gas migration barriers or other gas controls;

(6) cross-sections of the site that delineate the disposal or storage locations of wastes. The crosssections shall depict liners, leachate collection systems, the waste cover, and other applicable details;

(7) removal of all solid wastes from processing facilities; and

(8) a schedule for completing all closure activities.

(j) The closure plan shall be prepared not later than the effective date of this part, or by the initial receipt of waste, whichever is later, and shall be submitted to the department.

(k) A minimum of 60 days prior to beginning closure of each MSWLF unit, an owner or operator shall notify the department of the intent to close a unit.

(l) The owner or operator shall complete closure activities of each unit in accordance with the closure plan within 180 days following the beginning of closure. Extensions of the closure period may be granted by the director if the owner or operator demonstrates that:

(i) closure will, of necessity, take longer than 180 days; and

(ii) all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed unit.

(m) Following closure of each MSWLF unit, the owner or operator shall submit a certification to the department. The certification shall be signed by an independent registered professional engineer, or approved by the director, and shall verify that closure has been completed in accordance with the closure plan.

(n) Following closure of all MSWLF units in a facility, the owner or operator shall perform the following tasks.

(1) The owner or operator shall file a restrictive covenant with the office of register of deeds for the county in which the property is located, pursuant to the requirements of

K.A.R. 28-29-20. The restrictive covenant shall, in perpetuity, notify any potential purchaser of the property that:

(A) the property has been used as a MSWLF; and

(B) the use of the property is subject to the restrictions of the post-closure plan in subsection (p) of this regulation.

(2) The owner or operator shall notify the director that a restrictive covenant has been recorded pursuant to the requirements of paragraph (1) of this subsection.

(o) The owner or operator may request permission from the director to remove the restrictive covenant if all wastes are removed from the facility.

(p) Post-closure care requirements.

(1) Following closure of each MSWLF unit, the owner or operator shall conduct post-closure care. Post-closure care shall be conducted for 30 years, except as provided under paragraph (2) of this subsection, and shall consist of at least the following activities:

(A) maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(B) maintaining and operating the leachate collection system, pursuant to K.A.R. 28-29-104(h);

(C) monitoring the groundwater in accordance with the requirements of K.A.R. 28-29-113 and maintaining the groundwater monitoring system, if applicable; and

(D) maintaining and operating the gas monitoring system in accordance with the requirements of K.A.R. 28-29-108(e).

(2) The length of the post-closure care period may be increased by the director if the director determines that the lengthened period is necessary to protect human health and the environment.

(3) The owner or operator of each MSWLF unit must prepare a written post-closure plan that includes, at a minimum, the following information:

(A) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, run-off retention basins, landscaping, and access control;

(B) plans for monitoring and surveillance activities during post-closure;

(C) name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(D) a description of the planned uses of the property during the post-closure period.

(i) Post-closure use of the property shall not disturb the integrity of the final cover, liner or liners, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this regulation.

(ii) If the owner or operator demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment, the disturbance may be approved by the director.

(4) The owner or operator shall prepare a postclosure plan not later than the effective date of this regulation, or by the initial receipt of waste, whichever is later, and submit it to the director.

(5) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall submit a certification to the director. The certification shall be signed by an independent registered professional engineer, or approved by the director, and must verify that post-closure care has been completed in accordance with the post-closure plan.

(Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

***** Authenticated Kansas Administrative Regulation *****