

**15A NCAC 13B .1627 CLOSURE AND POST-CLOSURE REQUIREMENTS FOR MSWLF FACILITIES**

(a) Purpose. This Rule shall establish criteria for the closure of all MSWLF units and subsequent requirements for post-closure compliance. The owner or operator shall develop specific plans for the closure and post-closure of the MSWLF facility or units that comply with Rule .1629 of this Section, and submit them to the Division for review and approval.

(b) Scope.

- (1) This Rule shall establish standards for the scheduling and documenting closure of all MSWLF units, and design of the cap system. Construction requirements for the cap system shall incorporate specific requirements from Rule .1624 of this Section.
- (2) This Rule shall establish standards for the monitoring and maintenance of the MSWLF unit(s) following closure.

(c) Closure criteria.

- (1) An MSWLF unit shall have a cap system installed that shall be designed and constructed to:
  - (A) have a permeability less than or equal to the permeability of any base liner system or the in-situ subsoils underlying the landfill, or the permeability specified for the final cover in the effective permit, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less;
  - (B) minimize infiltration through the closed MSWLF unit by the use of a low-permeability barrier that contains a minimum 18 inches of earthen material; and
  - (C) minimize erosion of the cap system and protect the low-permeability barrier from root penetration by use of an erosion layer that contains no less than six inches of earthen material that is capable of sustaining native plant growth.
- (2) The owner or operator may submit a request for an alternative cap system or alternative post-settlement slopes in the closure and post-closure care plan submitted in accordance with Rule .1629 of the Section. The request shall include a demonstration of the following:
  - (A) the alternative cap system will achieve a reduction in infiltration equivalent to or greater than the low-permeability barrier specified in Subparagraph (1) of this Paragraph; and
  - (B) the erosion layer will provide protection equivalent to or greater than the erosion layer specified in Subparagraph (1) of this Paragraph.
- (3) Construction of the cap system for all MSWLF units shall conform to the requirements set forth in Rule .1624(b)(8), (b)(9), (b)(10), (b)(14), and (b)(15) of this Section and the following requirements:
  - (A) post-settlement surface slopes shall be a minimum of five percent and a maximum of 25 percent; and
  - (B) a gas venting or collection system shall be installed below the low-permeability barrier to minimize pressures exerted on the barrier.
- (4) Prior to beginning closure of each MSWLF unit as specified in Subparagraph (5) of this Paragraph, an owner or operator shall notify the Division in writing that a notice of the intent to close the unit has been placed in the operating record.
- (5) The owner or operator shall begin closure activities of each MSWLF unit no later than 30 days after the date on which the MSWLF unit receives the known final receipt of wastes or no later than one year after the most recent receipt of wastes, if the MSWLF unit has remaining capacity. Extensions beyond the deadline for beginning closure may be granted by the Division if the owner or operator demonstrates that the MSWLF unit has the capacity to receive additional wastes and the owner or operator has and will continue to prevent threats to human health and the environment from the unclosed MSWLF unit.
- (6) The owner or operator of all MSWLF units shall complete closure activities of each MSWLF unit in accordance with the closure plan within 180 days following the beginning of closure as specified in Subparagraph (5) of this Paragraph. Extensions of the closure period may be granted by the Division if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and they have and will continue to prevent threats to human health and the environment from the unclosed MSWLF unit.
- (7) Following closure of each MSWLF unit, the owner or operator shall notify the Division that a certification, signed by the project engineer verifying that closure has been completed in accordance with the closure plan, has been placed in the operating record.

- (8) One hundred and eighty days prior to beginning closure of the final permitted MSWLF unit, an owner or operator shall submit to the Division in writing a notice of intent to close the final unit; and place a copy of the notice in the operating record. The notice shall include the anticipated date that the facility will cease waste acceptance, and a statement identifying the plans that were incorporated into the permit that the owner or operator shall comply with during the closure and post-closure care period. The notice shall include the dates that the plans were incorporated into the facility's permit and the file identification numbers that were assigned by the Division to the files containing these plans. If the owner or operator determines that updates or revisions to the plans are necessary, the owner or operator shall submit any changes to the plans to the Division as a permit modification in accordance with Rules .1603(a)(3) and .1617(d) of this Section.
- (9) Recordation. Following closure of all MSWLF units, the owner or operator shall record a notice for the landfill facility property at the local county Register of Deeds office; and notify the Division that the notice has been recorded and a copy has been placed in the operating record. The notice may be a notation on the deed to the landfill facility property, or may be some other instrument such as a declaration of restrictions on the property that is discoverable during a title search for the landfill facility property. The notice shall notify any potential purchaser of the property that the land has been used as a landfill facility and future use is restricted under the closure plan approved by the Division. The owner or operator may request approval from the Division to remove the notice. The Division shall approve removal of the notice if all wastes are removed from the landfill facility property.

(d) Post-closure criteria.

- (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 Subparagraph (2) of this Paragraph, and consist of the following:
  - (A) maintaining the integrity and effectiveness of any cap system, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing rainwater that drains over land from or onto any part of the facility or unit from eroding or damaging the cap system;
  - (B) monitoring the surface water and groundwater in accordance with the requirements of Rules .1623(b)(3)(B) and .1630 through .1637 of this Section, and maintaining the groundwater monitoring system;
  - (C) maintaining and operating the gas monitoring system in accordance with the requirements of Rule .1626 of this Section; and
  - (D) maintaining, operating, and decommissioning the leachate collection system in accordance with the requirements in Rules .1624 and .1626 of this Section. The owner or operator may submit a request to stop managing leachate in writing to the Division. The request shall include a demonstration with supporting documentation that the operation and maintenance of leachate management systems during the active life, closure, and post-closure care period of the MSWLF unit complied with the permit including the plans incorporated into the permit, the rules of this Subchapter, and 15A NCAC 02B and 02L; and that the current and projected volume of leachate generated and the results of leachate sample analysis during the post-closure care period indicate that the leachate no longer poses a threat to human health and the environment. The demonstration shall also include the certifications required by Subparagraph (3) of this Paragraph. The Division shall consider the information required to be submitted in the demonstration and the owner or operator's compliance history to make a determination on approval of the request.
- (2) The length of the post-closure care period may be:
  - (A) decreased by the Division if the owner or operator demonstrates that the reduced period is protective of human health and the environment and this demonstration is approved by the Division; or
  - (B) increased by the Division if the Division determines that the lengthened period is necessary to protect human health and the environment.
- (3) Every five years during the post-closure care period and following completion of the post-closure care period for each MSWLF unit, the owner or operator shall notify the Division that a certification verifying that post-closure care has been conducted in accordance with the

post-closure plan has been placed in the operating record. If required by G.S. 89C, the certification shall be signed by a licensed professional engineer.

*History Note: Authority G.S. 130A-294;  
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