

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

(a) Purpose. This Rule establishes criteria for the closure of all MSWLF units and subsequent requirements for post-closure compliance. The owner or operator is required to develop specific plans for the MSWLF facility under Rule .1629.

(b) Scope.

- (1) Closure. Standards are established for the scheduling and documenting closure of all MSWLF units, and designing the cap system. Construction requirements for the cap system incorporate specific requirements from Rule .1624 of this Section.
- (2) Post-closure. Standards are established for the monitoring and maintenance of the MSWLF unit(s) following closure.

(c) Closure criteria.

- (1) New and existing MSWLF units and lateral expansions shall install a cap system that is designed to minimize infiltration and erosion. The cap system 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 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 a minimum of six inches of earthen material that is capable of sustaining native plant growth.
- (2) The Division may approve an alternative cap system if the owner or operator can adequately demonstrate the following:
  - (A) The alternative cap system will achieve an equivalent or greater reduction in infiltration as the low-permeability barrier specified in Subparagraph (1) of this Paragraph; and
  - (B) The erosion layer will provide equivalent or improved protection as the erosion layer specified in Subparagraph (3) of this Paragraph.
- (3) Construction of the cap system for all MSWLF units shall conform to the requirements set forth in Subparagraphs (b)(8), (b)(9) and (b)(15) of Rule .1624 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 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, if the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, no later than one year after the most recent receipt of wastes. Extensions beyond the one-year 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 taken and will continue to take all steps necessary 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 taken and will continue to take all steps 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) Recordation.
  - (A) Following closure of all MSWLF units, the owner or operator shall record a notation on the deed to the landfill facility property, or some other instrument that is normally examined during title

- search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record.
- (B) The notation on the deed shall in perpetuity notify any potential purchaser of the property that:
    - (i) The land has been used as a landfill facility; and
    - (ii) Its use is restricted under the closure plan approved by the Division.
  - (9) The owner or operator may request permission from the Division to remove the notation from the deed if all wastes are removed from the facility.
  - (10) Existing MSWLF units. The following criteria shall apply to existing MSWLF units not designed and constructed with a base liner system permitted by the Division.
    - (A) The existing MSWLF unit shall cease receiving solid waste on or before January 1, 1998.
    - (B) The Division shall schedule closure of the existing MSWLF unit based on its review of the application submitted in accordance with Paragraph (d) of Rule .1617 and reviewed in accordance with Subparagraph (d) of Rule .1603.
    - (C) Final contours for the existing MSWLF unit shall be consistent with the capacity requirements necessary to close the unit in accordance with the requirements of this Subparagraph.
- (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 at least 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 run-on and run-off from eroding or otherwise damaging the cap system;
    - (B) Maintaining and operating the leachate collection system in accordance with the requirements in Rules .1624 and .1626. The Division may allow the owner or operator to stop managing leachate if the owner or operator demonstrates that leachate no longer poses a threat to human health and the environment;
    - (C) Monitoring the ground water and surface water in accordance with the requirements of Rules .1631 through .1637 and maintaining the ground-water monitoring system, if applicable; and monitoring the surface water in accordance with the requirements of Rule .0602; and
    - (D) Maintaining and operating the gas monitoring system in accordance with the requirements of Rule .1626 of this Section.
  - (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 sufficient to protect 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) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall notify the Division that a certification, signed by a registered professional engineer, verifying that post-closure care has been completed in accordance with the post-closure plan, has been placed in the operating record.

*History Note: Authority G.S. 130A-294;  
Eff. October 9, 1993.*