

**TITLE 20 ENVIRONMENTAL PROTECTION**  
**CHAPTER 9 SOLID WASTE**  
**PART 6 SOLID WASTE FACILITY AND COMPOSTING FACILITY CLOSURE AND POST-CLOSURE REQUIREMENTS**

**20.9.6.1 ISSUING AGENCY.** New Mexico Environmental Improvement Board.  
[20.9.6.1 NMAC - Rp, 20 NMAC 9.1.I.001, 8/2/2007]

**20.9.6.2 SCOPE.** This part applies to the transportation, storage, transfer, processing, transformation, recycling, composting, nuisance abatement and disposal of solid waste.  
[20.9.6.2 NMAC - Rp, 20 NMAC 9.1.I.002, 8/2/2007]

**20.9.6.3 STATUTORY AUTHORITY.** NMSA 1978, Sections 74-1-1 to 74-1-15, NMSA 1978, Sections 74-9-1 to 74-9-43, and NMSA 1978 Sections 74-13-1 to 74-13-20.  
[20.9.6.3 NMAC - Rp, 20 NMAC 9.1.I.003, 8/2/2007]

**20.9.6.4 DURATION.** Permanent.  
[20.9.6.4 NMAC - Rp, 20 NMAC 9.1.I.004, 8/2/2007]

**20.9.6.5 EFFECTIVE DATE.** August 2, 2007, unless a later date is cited at the end of a section.  
[20.9.6.5 NMAC - Rp, 20 NMAC 9.1.I.005, 8/2/2007]

**20.9.6.6 OBJECTIVE.** The objective of Part 6 of Chapter 9 is to establish regulations governing closure and post-closure care of solid waste facilities.  
[20.9.6.6 NMAC - Rp, 20 NMAC 9.1.I.006, 8/2/2007]

**20.9.6.7 DEFINITIONS.** [RESERVED]  
[See 20.9.2.7 NMAC for Definitions.]

**20.9.6.8 GENERAL REQUIREMENTS FOR CLOSURE AND POST CLOSURE CARE.**

A. Closure and post-closure care plans are required of all solid waste facilities that operated on or after May 14, 1989. The owner or operator of a solid waste facility that has closed but not submitted a closure and post-closure care plan shall submit such a plan within 180 days of the effective date of these regulations. The submitted plan shall meet the requirements of 20.9.6 NMAC.

B. The owner or operator of the solid waste facility shall prepare a written closure and post-closure care plan that describes the steps necessary for closure and post-closure care of the solid waste facility and any anticipated future uses of the property following closure.

C. Closure and post-closure care plans are required in the application for a permit or permit modification. One initial copy of the plan and two copies of the completed plan shall be submitted to the department.

D. The owner or operator of the solid waste facility shall notify the secretary in writing of the intent to close at least 90 days before closure occurs and shall notify the secretary in writing within 14 days after becoming a locked facility.

E. Closure and post-closure care plans for new solid waste facilities and modifications to existing facilities shall be approved as part of the facility permit.

F. All closure and post-closure care plans shall be approved by the secretary and may be subject to conditions.

G. Closure and post-closure care plans for existing non-permitted landfills that seek to close rather than continue to operate, shall be submitted for approval by the secretary within one year after the effective date of this part. The closure and post-closure care plan shall meet the requirements of 20.9.6 NMAC. After determining that the plan is complete, the secretary shall provide public notice of the plan in a newspaper of general circulation in the county where the facility is located. A non-adjudicatory hearing will be held if significant public interest warrants it. Approved closure and post-closure plans for unpermitted category 2 and 3 landfills shall be enforceable as a permit or regulation for purposes of 20.9.2 - 20.9.10 NMAC and the Solid Waste Act. Any landfill that operates after the effective date of these regulations shall have a closure and post-closure care plan approved as part of the permit, or shall seek approval of a closure and post-closure care plan.

H. Responses to the secretary's requests for additional information concerning a proposed closure and post-closure care plan shall be made within 90 days of receipt of such a request. The secretary may extend the response time for good cause.

I. Post-closure inspection and maintenance shall not be required of the facility if the owner or operator demonstrates to the secretary that all solid waste has been removed, requirements of the closure plan have been met, and following the removal of such wastes, a demonstration is made that the soil and ground water have not been contaminated.

J. All landfills, regardless of category, except construction and demolition debris landfills, which close after October 9, 1991, shall comply with the final cover requirements contained in 20.9.6.9 NMAC in addition to other closure requirements in effect at the time of closure.

K. The length of the post-closure care period may be decreased by the secretary if the owner or operator demonstrates that the reduced period is sufficient to protect public health, welfare, and the environment, or it may be increased by the secretary if the secretary determines that a longer period is necessary to protect health, welfare, and the environment. The time period for application of the provisions for financial assurance as defined in 20.9.10 NMAC shall be coincident with the time period of the post-closure care period. Any reduction or extension of the post-closure care period as described in this section shall be accompanied by an identical reduction or extension of the financial assurance provisions.

L. The owner or operator shall submit a closure report to the department within 60 days after closure completion. The report shall include:

(1) a summary of closure activities: and

(2) a certification by a New Mexico registered professional engineer that the closure of the solid waste facility has been completed and all conditions of the approved closure plan have been satisfied.

M. The active life of the facility terminates, and post-closure care begins, upon written verification by the department that the facility has been closed in accordance with the closure plan approved by the secretary.

N. The owner or operator shall submit a post-closure report to the department within 60 days after the post-closure period expires. The report shall include:

(1) a summary of post-closure activities: and

(2) a certification by a New Mexico registered professional engineer that the post-closure requirements, and if applicable, any corrective action requirements have been completed and all conditions of the approved post-closure care plan have been satisfied.

O. The post-closure care period for the facility terminates upon written verification by the secretary that the requirements of the approved post-closure care plan have been satisfied. If the secretary does not issue a verification, the secretary shall notify the owner or operator in writing that the activities required under 20.9.6 NMAC and 20.9.9 NMAC have not been conducted satisfactorily, and specify the reasons for such determination.

P. The secretary may require the owner or operator to amend the post-closure care plan if the secretary believes that the present or future implementation of the plan may cause a threat to human health or the environment.

[20.9.6.8 NMAC - Rp, 20 NMAC 9.1.V.501, 8/2/2007]

#### **20.9.6.9 CLOSURE AND POST-CLOSURE REQUIREMENTS FOR MUNICIPAL AND SPECIAL WASTE LANDFILLS, AND MONOFILLS.**

A. Owners and operators of municipal landfills and special waste landfills shall begin closure within 30 days after the landfill receives the final receipt of waste or within 30 days after approval of the closure and post-closure care plan, whichever is later.

(1) Owners and operators shall install a final cover system which consists of the following:

(a) for municipal and special waste landfills (except monofills) that are not lined and which never received more than 7,300 tons of waste (i.e., an average of 20 tons or less per day annual average) during any calendar year, an infiltration layer comprised of a minimum of 18 inches of earthen material having a saturated hydraulic conductivity no greater than  $1 \times 10^{-5}$  cm/sec;

(b) for municipal landfills which exceed the tonnage requirements of Subparagraph (a) of this paragraph and for all special waste landfills (other than monofills), an infiltration layer comprised of a minimum of 18 inches of earthen material having a saturated hydraulic conductivity less than or equal to the saturated hydraulic conductivity of any bottom liner system or natural subsoils present, or a saturated hydraulic conductivity no greater than  $1 \times 10^{-5}$  cm/sec., whichever provides for less infiltration;

(c) a layer for minimizing erosion consisting of a minimum of six inches of earthen material that is capable of sustaining native plant growth;

- (d) any necessary gas vents provided they are sealed to assure no water infiltration;
- (e) finished grades over filled areas which shall not exceed 25 percent (four feet horizontal to one foot vertical), or be less than five percent for new landfills and lateral expansions permitted for construction, operation, and closure after the effective date of these regulations or two percent for all other landfills;
- (f) run-off controls designed for a peak discharge of a 24-hour, 25-year storm;
- (g) cover material compacted to no less than 75 percent and no more than 85 percent standard proctor density unless otherwise approved in the permit, closure plan or by specific approval; and
- (h) for closure of a cell containing only regulated asbestos waste or scrap tires, the owner or operator shall cover with 30 inches of compacted native soils and 6 inches topsoil on top of the 30-inch cover, to provide a 36-inch final cover to the original grade and implement measures where necessary to control erosion and rodent intrusion.

(2) The secretary may permit an alternative final cover design that includes:

- (a) an infiltration layer that achieves an equivalent reduction in infiltration as specified in Subparagraph (a) or (b) of Paragraph (1) of this subsection, as applicable; and
- (b) an erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in Subparagraph (c) of Paragraph (1) of this subsection;

- (c) for landfills that stopped accepting waste prior to the effective date of this part, finished grades different from those specified in Subparagraph (e) of Paragraph (1) of this subsection, provided a demonstration is made that the alternate grades will prevent erosion and will provide equivalent reduction in infiltration; and

- (d) for landfills accepting waste after the effective date of this part and lateral expansions permitted after the effective date of this part, finished grades different than those specified in Subparagraph (e) of Paragraph (1) of this subsection, provided no grade is greater than 33 percent and a demonstration is made in the closure plan or permit or modification application that the alternate grades will prevent erosion and will provide equivalent reduction in infiltration.

(3) The written closure plan, at a minimum, shall include the following information:

- (a) a schedule for completion of all activities necessary to meet the closure criteria specified in this part;

- (b) a report that includes:

- (i) a description of the local geology;
- (ii) a description of the hydrogeology of the landfill site, including maps and cross-sections illustrating subsurface features;
- (iii) well locations, depths to ground water, and, if available, ground water quality, flow direction and gradient shown on a topographic map; and
- (iv) a description of the landfill, including: a) the date operations commenced and the date of final receipt of waste; b) the types of waste accepted at the landfill; c) the total volume of waste disposed; d) a topographic map that shows the size and dimensions of fill areas; e) a topographic map that shows structures, drainages, and water wells in the area of the landfill; and f) a topographic map that shows methane monitoring points and methane concentrations along the landfill property boundary and within structures located on landfill property;

- (c) a description of the final cover and its placement, including:

- (i) thickness and saturated hydraulic conductivity;
- (ii) source of the cover material;
- (iii) a construction quality assurance/construction quality control plan for placement of the final cover that meets the requirements of 20.9.4.14 NMAC;
- (iv) equipment that will be utilized to apply the final cover and ensure it is adequately compacted to obtain the appropriate proctor density; and
- (v) a map that shows final contours that meet the requirements of Subparagraph (e) of Paragraph (1) of this subsection;

- (d) a vegetation plan, including:

- (i) the seeding method to obtain proper growth density; and
- (ii) species of vegetation to be planted, including grasses or local seed mix as recommended for the area by the natural resources conservation service for permanent soil stabilization and to minimize wind and water erosion;

- (e) a plan to prevent unauthorized access by the public and entry by large animals to the landfill through the use of fences, gates, locks, or other means;

(f) a plan to remove structures, unless otherwise approved by the secretary;  
(g) a description of the signs indicating that the site is a closed landfill and no dumping is permitted; all signs shall include the name and telephone number of the landfill owner; and  
(h) a post-closure care plan, including:  
(i) a monitoring and repair plan that describes methods to be used to ensure cover integrity, including but not limited to settlement, ponding, water erosion, wind erosion, and inadequate drainage, to ensure the final cover meets the slope requirements of 20.9.6.9 NMAC, and to maintain adequate vegetation during the post-closure period;  
(ii) a methane monitoring plan in compliance with Subsections B and C of 20.9.5.9 NMAC;

(iii) a ground water monitoring plan; and  
(iv) a leachate collection system plan, if applicable;  
(4) prior to beginning closure of a landfill, the owner or operator shall notify the secretary that a notice of the intent to close the landfill has been placed in the operating record;  
(5) the owner or operator shall complete closure activities in accordance with the closure plan within 180 days following the beginning of closure, unless otherwise approved in the closure plan; extensions of the closure period may be granted by the secretary if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and has taken and will continue to take all steps necessary to prevent threats to public health, welfare and the environment;  
(6) upon completion of closure, a detailed description of the location of areas of waste disposal at the facility, including a plat signed by a registered surveyor, shall be filed with the appropriate county land recording agent; the description and the plat shall be filed so that it will be found during a title search and proof of the filing shall be submitted to the secretary; the description shall perpetually notify any potential purchaser of the property that:

(a) the land has been used as a landfill facility;  
(b) its use is restricted as described in the post-closure care plan; and  
(7) the owner or operator may request permission from the secretary to file a revised description if all wastes are removed from the facility.

B. Landfill owners or operators shall submit reports of monitoring performance and data to the secretary within 45 days after the end of each calendar year.

C. The post-closure care period for a landfill shall be 30 years.

D. The owner or operator may amend the post-closure care plan, provided the amendment is not a permit modification, by submitting a request to the secretary at least 30 days prior to the proposed change. No proposed amendment shall be effective unless first approved in writing by the secretary.

E. The secretary may require the owner or operator to modify or amend the post-closure care plan if the secretary determines that the present or future implementation of the plan may cause a threat to public health, welfare and or the environment.

[20.9.6.9 NMAC - Rp, 20 NMAC 9.1.V.502, 8/2/2007]

#### **20.9.6.10 CONSTRUCTION AND DEMOLITION LANDFILL CLOSURE AND POST-CLOSURE REQUIREMENTS.**

A. Owners and operators of construction and demolition landfills shall comply with the following closure requirements.

(1) A final cover of not less than 24 inches of approved material shall be placed over the entire surface of each portion of the final lift starting no later than 30 days and completed within 60 days after the known final receipt of waste. The final cover shall consist of a compacted layer of not less than 18 inches of approved material and a layer for minimizing erosion of not less than 6 inches of approved material that is capable of sustaining native plant growth.

(2) The finished grades over filled areas shall not exceed 25 percent (four feet horizontal to one foot vertical), or be less than five percent for landfills permitted after the effective date of these regulations or two percent for all other landfills. The slope shall be sufficient to prevent the ponding of water and the erosion of the cover material. For existing landfills, the secretary may approve slopes which exceed 25 percent grade provided the owner demonstrates there is no practicable alternative and the steeper slopes can be permanently stabilized to prevent erosion.

(3) The owner or operator shall provide a plan showing the final contours and vegetation in relationship to the surrounding land, the description of final use of the land with drawings as appropriate, and a description of vegetation to provide permanent soil stabilization.

(4) Upon completion of closure, a detailed description of the location of areas of waste disposal at the site, including a plat signed by a registered surveyor, shall be filed with the appropriate county land recording agency. The description and the plat shall be filed so that it will be found during a title search and proof of the filing shall be submitted to the secretary. The description shall perpetually notify any potential purchaser of the property that:

- (a) the land has been used as a landfill; and
- (b) its use is restricted as described in the post-closure care plan.

(5) The owner or operator may request permission from the secretary to file a revised description if all wastes are removed from the facility.

B. Post-closure care for construction and demolition landfills shall be for a period of 30 years and includes control of erosion, maintenance of cover, top slopes, side slopes, drainage, and vegetation. The owner or operator of a construction and demolition landfill shall conduct post-closure care inspections:

- (1) at least once a year for the first three years; and
- (2) at least once every three years, thereafter.

[20.9.6.10 NMAC - Rp, 20 NMAC 9.1.V.503, 8/2/2007]

#### **20.9.6.11 CLOSURE AND POST-CLOSURE REQUIREMENTS FOR COMPOSTING FACILITIES THAT ACCEPT SOLID WASTE.**

A. Within 30 days of closure, composting facility owners or operators shall:

- (1) remove all windrows and in-vessel compost material on the compost facility's real property;
- (2) remove or vegetate compacted compost material that may be left on the land;
- (3) drain ponds or leachate collection systems, back fill, and assure removed contents are properly

disposed;

(4) provide cover if necessary; and

(5) if required in the approved closure plan, remove buildings, fences, roads, and equipment, clean up the site, and conduct tests on the soils for contamination.

B. Composting facility owners or operators shall:

- (1) maintain ground water monitoring, if required to detect possible migration of contaminants; and
- (2) inspect and maintain any cover material.

C. Post-closure inspection and maintenance shall not be required if the facility owner or operator demonstrates that all requirements of closure have been met and there is no evidence of contamination.

[20.9.6.11 NMAC - Rp, 20 NMAC 9.1.V.504, 8/2/2007]

#### **20.9.6.12 CLOSURE AND POST-CLOSURE REQUIREMENTS FOR OTHER SOLID WASTE FACILITIES.**

A. Owners or operators of solid waste facilities other than landfills shall comply with the following requirements:

- (1) cleanup of the area;
- (2) dismantling and removal of any improvements related to solid waste handling or disposal, if

required in the approved closure plan, such as;

- (a) removal of buildings;
- (b) removal of fences;
- (c) removal of roads; and
- (d) removal of equipment;

(3) testing of soils and ground water for contamination, if required in the approved closure plan; and

(4) all other conditions of the permit.

B. Post-closure inspection and maintenance may be waived upon written approval of the secretary, if the facility owner or operator demonstrates to the department that all requirements of closure have been met and there is no evidence of contamination.

[20.9.6.12 NMAC - Rp, 20 NMAC 9.1.V.505, 8/2/2007]

#### **HISTORY OF 20.9.6 NMAC:**

Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center.

EIB 74-1, Solid Waste Management Regulations, filed 5/3/74.

EIB/SWMR-2, Solid Waste Management Regulations, filed 4/14/89.

EIB/SWMR-3, Solid Waste Management Regulations, filed 12/31/91.

EIB/SWMR-4, Solid Waste Management Regulations, filed 7/18/94.

**History of Repealed Material:** 20 NMAC 9.1, Solid Waste Management Regulations (filed 10/27/95) repealed 8/2/2007.

**Other History:**

EIB/SWMR-4, Solid Waste Management Regulations (filed 7/18/94) was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 9.1, Solid Waste Management Regulations, effective 11/30/95.

That applicable portion of 20 NMAC 9.1, Subpart V, Closure and Post-Closure Requirements, (filed 10/27/95), was **renumbered, reformatted and replaced** by 20.9.6 NMAC, Solid Waste Facility and Composting Facility Closure and Post-Closure Requirements, effective 8/2/2007.