

APA-1  
07/04

TRANSMITTAL SHEET FOR  
NOTICE OF INTENDED ACTION

Control No. 335 Department or Agency Environmental Management  
Rule No. 335-13-4-.20  
Rule Title: Closure and Post-Closure

         New   X   Amend          Repeal          Adopt by Reference

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety?          YES

Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare?          YES

Is there another, less restrictive method of regulation available that could adequately protect the public?          NO

Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree?          NO

Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule?          NO

Are all facets of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public?          YES

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Does the proposed rule have an economic impact?          NO

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of section 41-22-23, Code of Alabama 1975.

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Certification of Authorized Official

I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that it conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Reference Service.

Signature of certifying officer         Mandy Elliott        

Date October 20, 2017



APA-2  
11/96

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
LAND DIVISION

NOTICE OF INTENDED ACTION

AGENCY NAME: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RULE NO. & TITLE:

335-13-4-.01 Landfill Unit Siting Standards (Amend)  
335-13-4-.12 Plans and Operational Reports (Amend)  
335-13-4-.13 Site Geology and Hydrology (Amend)  
335-13-4-.16 Explosive Gases (Amend)  
335-13-4-.18 Liners and Leachate Collection (Amend)  
335-13-4-.20 Closure and Post-Closure (Amend)  
335-13-4-.21 General Operational Standards for Landfill Units (Amend)  
335-13-4-.22 Specific Requirements for Municipal Solid Waste Landfills (Amend)  
335-13-4-.23 Specific Requirements for Inert- Construction/Demolition Landfills  
and  
Industrial Landfills (Amend)  
335-13-4-.26 Requirements for Management and Disposal of Special Waste  
(Amend)  
335-13-4-.27 Groundwater Monitoring and Corrective Action (Amend)  
335-13-4-.28 Financial Assurance Criteria (Amend)  
335-13-4-.29 Recordkeeping Requirements (Amend)  
335-13-4-APPENDIX II List of Hazardous Inorganic and Organic  
Constituents (Amend)

INTENDED ACTION: Revise Division 13 of the ADEM Administrative Code.

SUBSTANCE OR PROPOSED ACTION:

Revisions to the Division 13 are being proposed to amend the solid waste permitting application regulations to incorporate a statutory change to the Code of Alabama to update the local host governmental approval process.

Additionally, the definition of "municipal solid waste landfill unit" is proposed to be amended in accordance with EPA's Hazardous Waste Generator Improvements Rule (81 FR 85805, November 28, 2016).

TIME, PLACE, MANNER OF PRESENTING VIEWS:

Comments may be submitted in writing or orally at a public hearing to be held Wednesday, December 6, 2017 at 10:30 AM in the Main Hearing Room at the ADEM Central Office located at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: December 6, 2017

CONTACT PERSON AT AGENCY: Eric L. Sanderson, Chief of the Solid Waste Branch, ADEM Land Division (334/271-7755)



Lance R. Lefleur  
Director

**335-13-4-.20 Closure and Post-Closure.**

(1) Submittal. The owner or operator must submit a closure/post-closure plan to the Department and place in the operating record, no later than the effective date of these regulations or by the initial receipt of waste, whichever is later.

(2) Closure. The requirements for closure of existing and proposed landfill units shall include the following unless otherwise noted.

(a) The owner or operator must prepare a written closure plan that describes the steps necessary to close all existing and proposed landfill units at any point during their active life in accordance with the cover design requirements in 335-13-4-.20(2)(b). The owner or operator must submit the closure plan as part of the permit application to the Department. The closure plan, at a minimum, must include the following information:

1. A description of the final cover, designed in accordance with 335-13-4-.20(2)(b) and the methods and procedures to be used to install the cover;
2. An estimate of the largest area of the landfill unit ever requiring a final cover as required under 335-13-4-.20(2)(b) at any time during the active life;
3. An estimate of the maximum inventory of wastes ever on-site over the active life of the facility; and
4. A schedule for completing all activities necessary to satisfy the closure criteria in this Rule.

(b) A final cover system must be installed which is designed to minimize infiltration and erosion. The final cover system must be comprised of an erosion layer(s) underlain by an infiltration layer(s) as follows:

1. The infiltration layer for MSWLF and ILF must be comprised of a minimum of 18 inches of earthen material and/or a synthetic layer that has a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less. The infiltration layer for C/DLF must be comprised of a minimum of 18 inches of compacted earthen material excluding sands, and

2. The erosion layer must consist of a minimum 6 inches of earthen material that is capable of sustaining native plant growth, as specified in 335-13-4-.20(2)(d).

3. The Department may approve an alternative final cover design that includes:

(i) An infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in 335-13-4-.20(2)(b)1., and

(ii) An erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in 335-13-4-.20(2)(b)2.

(c) Final soil cover shall be graded so that:

1. Surface water does not pond over the landfill unit.

2. The maximum final grade of the final cover system shall not exceed 25 percent or as specified by the Department to minimize erosion.

3. Slopes longer than 25 feet shall require horizontal terraces, of sufficient width for equipment operation, for every 20 feet rise in elevation or utilize other erosion control measures approved by the Department.

4. The minimum final grade of the final cover system shall not be less than 5 percent or as specified by the Department to minimize ponding.

5. For a permitted facility utilizing the area fill method or the trench method, final grading of the infiltration layer shall be completed within 90 days after the unit has received the last known receipt of waste.

(d) A vegetative or some other appropriate cover must be established to minimize erosion and, when applicable, maximize evapotranspiration. Within 90 days after completion of final grading requirements on each phase or each trench as specified in 335-13-4-.20(2)(a), the Permittee or owner of a permitted landfill unit shall prepare the final cover for the establishment of a vegetative cover or alternative cover. Deep rooted vegetation (roots that may grow below the 6 inch erosion layer) shall be prohibited as vegetative cover. Preparation of a vegetative cover shall include, but not be limited to, the following:

1. Placement of appropriate species of grass seed, fertilizer and mulch; and
2. Watering and maintenance necessary such that germination of grass will occur.

(e) Prior to beginning closure of each landfill unit as specified in this Rule, an owner or operator must submit to the Department and place in the operating record a notice of the intent to close the unit.

(f) The owner or operator must begin closure activities of each LF unit no later than 30 days after the date of which the LF unit receives the known final receipt of wastes. If the LF unit has remaining capacity and there is reasonable likelihood that the LF unit will receive additional wastes, closure activities of each LF unit must begin no later than one year after the date of known final receipt of wastes. Extensions beyond the one-year deadline for beginning closure may be granted by the Department if the owner or operator demonstrates that the LF 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 LF unit.

(g) The owner or operator of all LF units must complete closure activities of each LF unit in accordance with the closure plan within 180 days following the last known receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and ~~hethe~~ 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 LF unit. Extensions granted for closure of each LF unit shall not exceed a total of 180 days.

(h) Following closure of each LF unit, the owner or operator must submit to the Department a certification, signed by an independent registered professional

engineer verifying that closure has been completed in accordance with the closure plan, and a copy placed in the operating record. C/DLF and/or ILF owner or operator may submit certification signed by a registered professional engineer in lieu of an independent registered professional engineer.

(i) Within 90 days after permit expiration, revocation or when final closure requirements in 335-13-4-.20 are achieved as determined by the Department, the permittee or owner of a facility shall record a notation onto the land deed containing the property utilized for disposal, and/or some other legal instrument that is normally examined during a title search, that will in perpetuity, notify any potential purchaser of the property that:

1. The land has been used as a solid waste disposal facility landfill unit;
2. Its use is restricted by the items contained in 335-13-4-.20(3)(c) and 335-13-4-.20(3)(d);
3. The locations and dimensions of the landfill unit with respect to permanently surveyed benchmarks and section corners shall be on a plat prepared and sealed by a land surveyor;
4. Contain a note, prominently displayed, which states the name of the permittee or operating agency, the type of landfill unit and the beginning and closure dates of the disposal activity.
5. Certification by an Engineer or Land Surveyor that all closure requirements have been completed as determined necessary by the Department.

(j) For a permitted facility, the permittee or land owner shall submit a certified copy of the recording instrument to the Department and place a copy in the operating record within 120 days after permit expiration, revocation or as otherwise directed by the Department.

(k) Detail design for the closure of existing and proposed LF units shall be shown on a final contour and drainage plan. Items required in 335-13-4-.20(2)(b) through (d), (i), (j), and (3)(a), (d), and (f) shall be included.

(3) Post-closure. The requirements for post-closure of existing and proposed landfill units shall include the following unless otherwise noted.

(a) Following closure of each LF unit, the owner or operator must conduct post-closure care. Post-closure care must be conducted for a minimum of 30 years; or a minimum of 5 years if closed prior to October 9, 1993, or the effective date of § 258.1 of 40 CFR 258, Solid Waste Disposal Criteria, whichever is later; except as provided under 335-13-4-.20(3)(b), and consist of at least the following:

1. Eroded areas shall be filled with suitable soil cover, compacted, graded and appropriate cover established as described in 335-13-4-.20(2)(d).
2. Areas which provide for ponding of surface water shall be filled, graded and an appropriate cover established as described in 335-13-4-.20(2)(d).

3. Landfilled areas with extensive surface cracks in soil cover shall be corrected as necessary, or as determined by the Department, to prevent infiltration of surface water.

4. An appropriate cover shall be maintained on the facility at all times as described in 335-13-4-.20(2)(d).

5. Access control structures shall be maintained or erected and signs shall be posted stating that the facility is closed and giving the location of the nearest permitted landfill unit.

6. Any waste dumped at the landfill unit following closure shall be removed to an approved landfill unit by the permittee, operating agency, or owner.

7. Monitoring devices and pollution control equipment such as groundwater monitoring wells, explosive gas monitoring systems, erosion, and surface water control structures, and leachate facilities shall be maintained. Monitoring requirements shall continue in effect throughout the active life and post-closure care period as determined by the Department unless all solid waste is removed and no unpermitted discharge to waters has occurred.

8. Other deficiencies such as vector control, which may be observed by the Department shall be corrected.

(b) The length of the post-closure care period may be:

1. Decreased by the Department 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 Department; or

2. Increased by the Department if the Department determines that the lengthened period is necessary to protect human health and the environment.

(c) The owner or operator of all LF units must submit to the Department and receive approval as part of the permit application, a written post-closure plan. A copy must also be placed in the operating record. The post-closure plan must include, at a minimum, the following information:

1. A description of the monitoring and maintenance activities required in 335-13-4-.20(3)(a) for each LF unit, and the frequency at which these activities will be performed;

2. Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

3. A description of the planned uses of the property during the post-closure period.

(d) Post-closure use of the property used for the disposal operation must never be allowed to disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems necessary to comply with the requirements of these Rules. The Department may approve any other

disturbance if the owner or operator demonstrates that the disturbance, including any removal of waste, complies with the following:

1. The activities will not increase the potential threat to human health or the environment; or

2. The activities are necessary to reduce a threat to human health or the environment.

(e) Following completion of the post-closure care period for each LF unit, the owner or operator must submit to the Department a certification, signed by an independent registered professional engineer verifying that post-closure care has been completed in accordance with the post-closure plan, and a copy placed in the operating record. A C/DLF Owner or Operator may submit certification signed by a registered professional engineer in lieu of an independent registered professional engineer.

(f) If the Permittee or owner, or any subsequent owner of the land upon which a landfill unit is located wishes to remove waste, waste residues, the liner, if any, or any contaminated soils, the owner must request approval from the Department. The owner may also ask permission to remove the notation from the recording instrument if all waste and contaminated soils are removed from the property and no unpermitted discharges to waters have occurred.

**Author:** Russell A. Kelly; S. Scott Story.-

**Statutory Authority:** Code of Alabama 1975, §§ 22-27-3, 22-27-4, 22-27-7.

**History:** November 18, 1981.

**Amended:** July 21, 1988; November 2, 1993; July 26, 1996; XXXXXX, 2018.