

TRANSMITTAL SHEET FOR  
NOTICE OF INTENDED ACTION

Control No. 335 Department or Agency Environmental Management  
Rule No. 335-14-5-.19  
Rule Title: Special Provisions for Cleanup

         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, 2016

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
LAND DIVISION**

**NOTICE OF INTENDED ACTION**

**AGENCY NAME:** Department of Environmental Management

**RULE NO. & TITLE:** 335-14-5-.02 General Facility Standards  
335-14-5-.05 Manifest System, Recordkeeping and Reporting  
335-14-5-.07 Closure and Post-Closure  
335-14-5-.08 Financial Requirements  
335-14-5-.10 Tank Systems  
335-14-5-.19 Special Provisions for Cleanup  
335-14-5-.23 Drip Pads  
335-14-5-.27 Subpart AA - Air Emission Standards For Process Vents  
335-14-5-.28 Subpart BB - Air Emission Standards For Equipment Leaks  
335-14-5-.29 Subpart CC - Air Emission Standards For Tanks, Surface Impoundments, And Containers  
335-14-5-.30 Containment Buildings  
335-14-5 Appendix IX Groundwater Monitoring List

**INTENDED ACTION:** Amend chapter 335-14-5 of the ADEM Administrative Code

**SUBSTANCE OF PROPOSED ACTION**

The Department of Environmental Management proposes to amend portions of the Division 14 Hazardous Waste Program Regulations to make typographical and grammatical corrections, to make clarifications necessary to maintain consistency with analogous federal rules, and to adopt new amendments required by the USEPA which are necessary to maintain the programs fully authorized status.

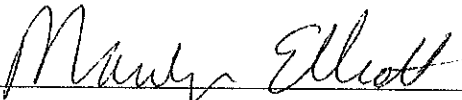
**TIME, PLACE, MANNER OF PRESENTING VIEWS**

Comments may be submitted in writing or orally at a public hearing to be held Wednesday, December 7, 2016 at 2:00 p.m. in the Main Hearing Room at the ADEM Central Office located at 1400 Coliseum Blvd, Montgomery, Alabama 36110.

**FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE**

Wednesday, December 7, 2016 at 5:00 p.m.

**CONTACT PERSON AT AGENCY:** Chip Crockett, Chief of the Industrial Hazardous Waste Branch, ADEM Land Division, (334) 270-5627.

  
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Lance R. LeFleur  
Director

**335-14-5-.19**

**Special Provisions For Cleanup.**

(1) Applicability of Corrective Action Management Unit (CAMU) Regulations.

(a) Except as provided in 335-14-5-.19(1)(b), CAMUs are subject to the requirements of 335-14-5-.19(3).

(b) CAMUs that were approved before April 22, 2002, or for which substantially complete applications (or equivalents) were submitted to the Department on or before November 20, 2000, are subject to the requirements in 335-14-5-.19(2) for grandfathered CAMUs; CAMU waste, activities, and design will not be subject to the standards in 335-14-5-.19(2), so long as the waste, activities, and design remain within the general scope of the CAMU as approved.

(2) Grandfathered Corrective Action Management Units (CAMU).

(a) To implement remedies under 335-14-5-.06(12), § 22-30-19 et. seq., Code of Alabama 1975 and/or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to 335-14-5-.06(12), the Department may designate an area at the facility as a corrective action management unit under the requirements in 335-14-5-.19(2). "Corrective action management unit (CAMU)" means an area within a facility that is used only for implementing corrective action or cleanup at the facility, pursuant to the requirements of 335-14-5-.19(1), (2), and (3). A CAMU must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1. Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

2. Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

**[Note:** The provisions of 335-14-5-.19(2)(a)1. and (2)(a)2. do not relieve the owner or operator of the requirement to meet other applicable requirements of this or other Divisions of the ADEM Administrative Code or other authorities (i.e., These provisions only exempt the unit from the LDR provisions of Chapter 335-14-9 and the hazardous waste minimum technology design requirements of Chapters 335-14-5 and 335-14-8.)]

(b)1. The Department may designate a regulated unit (as defined in 335-14-5-.06(1) as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under 335-14-5-.07(4) or 335-14-6-.07(4); and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

2. The requirements of 335-14-5-.06, 335-14-5-.07 and 335-14-5-.08 and the unit-specific requirements of Chapters 335-14-5- and 335-14-6 that applied to that regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Department shall designate a CAMU in accordance with the following:

1. The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2. Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3. The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

4. Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

5. The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

6. The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7. The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Department to designate a CAMU in accordance with the criteria of 335-14-5-.19.

(e) The Department shall specify, in the permit or order, requirements for CAMUs to include the following:

1. The areal configuration of the CAMU.

2. Requirements for remediation waste management to include the specification of applicable design, operation and closure requirements.

3. Requirements for groundwater monitoring that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to groundwater that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU.

4. Closure and post-closure requirements.

(i) Closure of corrective action management units shall:

(I) Minimize the need for further maintenance; and

(II) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Department for a given CAMU:

(I) Requirements for excavation, removal, treatment or containment of wastes;

(II) For areas in which wastes will remain after closure of the CAMU, requirements for capping of such areas; and

(III) Requirements for removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under 335-14-5-.19(2)(e), the Department shall consider the following factors:

(I) CAMU characteristics;

(II) Volume of wastes which remain in place after closure;

(III) Potential for releases from the CAMU;

(IV) Physical and chemical characteristics of the waste;

(V) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(VI) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring

and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) The Department shall document the rationale for designating CAMUs and shall make such documentation available to the public.

(g) Incorporation of a CAMU into an existing permit must be approved by the Department according to the permit modification procedures of 335-14-8-.04(2).

(h) The designation of a CAMU does not change the Department's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(3) Corrective Action Management Units (CAMU).

(a) To implement remedies under 335-14-5-.06(12) or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to 335-14-5-.06(12), the Department may designate an area at the facility as a corrective action management unit under the requirements in 335-14-5-.19. Corrective action management unit means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at the facility. A CAMU must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1. CAMU-eligible waste means:

(i) All solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, that are managed for implementing cleanup. As-generated wastes (either hazardous or non-hazardous) from ongoing industrial operations at a site are not CAMU-eligible wastes.

(ii) Wastes that would otherwise meet the description in 335-14-5-.19(3)(a)1.(i) are not "CAMU-Eligible Wastes" where:

(I) The wastes are hazardous wastes found during cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of cleanup, or the containers or tanks are excavated during the course of cleanup; or

(II) The Department exercises the discretion in 335-14-5-.19(3)(a)2. to prohibit the wastes from management in a CAMU.

(iii) Notwithstanding 335-14-5-.19(3)(a)1.(i), where appropriate, as-generated non-hazardous waste may be placed in a CAMU where such waste is being used to facilitate treatment or the performance of the CAMU.

2. The Department may prohibit, where appropriate, the placement of waste in a CAMU where the Department has or receives information that such wastes

have not been managed in compliance with applicable land disposal treatment standards of 335-14-9, or applicable unit design requirements of this part, or applicable unit design requirements of 335-14-6, or that non-compliance with other applicable requirements of this chapter likely contributed to the release of the waste.

3. Prohibition against placing liquids in CAMUs.

(i) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not sorbents have been added) in any CAMU is prohibited except where placement of such wastes facilitates the remedy selected for the waste.

(ii) The requirements in 335-14-5-.14(15)(d) for placement of containers holding free liquids in landfills apply to placement in a CAMU except where placement facilitates the remedy selected for the waste.

(iii) The placement of any liquid which is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to 335-14-5-.14(15)(f).

(iv) The absence or presence of free liquids in either a containerized or a bulk waste must be determined in accordance with 335-14-5-.14(15)(c). Sorbents used to treat free liquids in CAMUs must meet the requirements of 335-14-5-.14(15)(e).

4. Placement of CAMU-eligible wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

5. Consolidation or placement of CAMU-eligible wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)1. The Department may designate a regulated unit (as defined in 335-14-5-.06(1)(a)2.) as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under 335-14-5-.07(4) or 335-14-6-.07(4); and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

2. 335-14-5-.06, 5-.07, and 5-.08 or 335-14-6-.06, 6-.07, and 6-.08 and the unit-specific requirements of 335-14-5 or 335-14-6 that applied to the regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Department shall designate a CAMU that will be used for storage and/or treatment only in accordance with 335-14-5-.19(3)(f). The Department shall designate all other CAMUs in accordance with the following:

1. The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2. Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3. The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing CAMU-eligible waste is more protective than management of such wastes at contaminated areas of the facility;

4. Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

5. The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

6. The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7. The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Department to designate a CAMU in accordance with the criteria in 335-14-5-.19. This must include, unless not reasonably available, information on:

1. The origin of the waste and how it was subsequently managed (including a description of the timing and circumstances surrounding the disposal and/or release);

2. Whether the waste was listed or identified as hazardous at the time of disposal and/or release; and

3. Whether the disposal and/or release of the waste occurred before or after the land disposal requirements of 335-14-9 were in effect for the waste listing or characteristic.

(e) The Department shall specify, in the permit or order, requirements for CAMUs to include the following:

1. The areal configuration of the CAMU.

2. Except as provided in 335-14-5-.19(3)(g), requirements for CAMU-eligible waste management to include the specification of applicable design, operation, treatment and closure requirements.



3. Minimum design requirements. CAMUs, except as provided in 335-14-5-.19(3)(f), into which wastes are placed must be designed in accordance with the following:

(i) Unless the Department approves alternate requirements under 335-14-5-.19(3)(e)3.(ii), CAMUs that consist of new, replacement, or laterally expanded units must include a composite liner and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner. For purposes of 335-14-5-.19, composite liner means a system consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec. FML components consisting of high density polyethylene (HDPE) must be at least 60 mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component;

(ii) Alternate requirements. The Department may approve alternate requirements if:

(I) The Department finds that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as the liner and leachate collection systems in 335-14-5-.19(3)(e)3.(i); or

(II) The CAMU is to be established in an area with existing significant levels of contamination, and the Department finds that an alternative design, including a design that does not include a liner, would prevent migration from the unit that would exceed long-term remedial goals.

4. Minimum treatment requirements: Unless the wastes will be placed in a CAMU for storage and/or treatment only in accordance with 335-14-5-.19(3) f), CAMU-eligible wastes that, absent 335-14-5-.19, would be subject to the treatment requirements of 335-14-9, and that the Department determines contain principal hazardous constituents must be treated to the standards specified in 335-14-5-.19(3)(e)4.(iii).

(i) Principal hazardous constituents are those constituents that the Department determines to pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(I) In general, the Department will designate as principal hazardous constituents:

I. Carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above  $10^{-3}$ ; and

II. Non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.

(II) The Department will also designate constituents as principal hazardous constituents, where appropriate, when risks to human health and the environment posed by the potential migration of constituents in wastes to ground water are substantially higher than cleanup levels or goals at the site; when making such a designation, the Department may consider such factors as constituent concentrations, and fate and transport characteristics under site conditions.

(III) The Department may also designate other constituents as principal hazardous constituents that the Department determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(ii) In determining which constituents are "principal hazardous constituents," the Department must consider all constituents which, absent 335-14-5-.19, would be subject to the treatment requirements in 335-14-9.

(iii) Waste that the Department determines to contain principal hazardous constituents must meet treatment standards determined in accordance with 335-14-5-.19(3)(e)4.(iv) or (e)4.(v).

(iv) Treatment standards for wastes placed in CAMUs.

(I) For non-metals, treatment must achieve 90 percent reduction in total principal hazardous constituent concentrations, except as provided by 335-14-5-.19(3)(e)4.(iv)(III).

(II) For metals, treatment must achieve 90 percent reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by 335-14-5-.19(3)(e)4.(iv)(III).

(III) When treatment of any principal hazardous constituent to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the Universal Treatment Standard is not required. Universal Treatment Standards are identified in 335-14-9.

(IV) For waste exhibiting the hazardous characteristic of ignitability, corrosivity or reactivity, the waste must also be treated to eliminate these characteristics.

(V) For debris, the debris must be treated in accordance with 335-14-9, or by methods or to levels established under 335-14-5-.19(3)(e)4.(iv)(I) through (IV) or 335-14-5-.19(3)(e)4.(v), whichever the Department determines is appropriate.

(VI) Alternatives to TCLP. For metal bearing wastes for which metals removal treatment is not used, the Department may specify a leaching test other than the TCLP (SW846 Method 1311, as incorporated by reference in 335-14-1-.02(297)) to measure treatment effectiveness, provided the Department determines that an

alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

(v) Adjusted standards. The Department may adjust the treatment level or method in 335-14-5-.19(3)(e)4.(iv) to a higher or lower level, based on one or more of the following factors, as appropriate. The adjusted level or method must be protective of human health and the environment:

(I) The technical impracticability of treatment to the levels or by the methods in 335-14-5-.19(3)(e)4.(iv);

(II) The levels or methods in 335-14-5-.19(3)(e)4.(iv) would result in concentrations of principal hazardous constituents (PHCs) that are significantly above or below cleanup standards applicable to the site (established either site-specifically, or promulgated under state or federal law);

(III) The views of the affected local community on the treatment levels or methods in 335-14-5-.19(3)(e)4.(iv) as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels;

(IV) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in 335-14-5-.19(3)(e)4.(iv);

(V) The long-term protection offered by the engineering design of the CAMU and related engineering controls:

I. Where the treatment standards in 335-14-5-.19(3)(e)4.(iv) are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility; or

II. Where cost-effective treatment has been used and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at 335-14-5-.14(2)(b); or

III. Where, after review of appropriate treatment technologies, the Department determines that cost-effective treatment is not reasonably available, and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at 335-14-5-.14(2)(b); or

IV. Where cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility; or

V. Where, after review of appropriate treatment technologies, the Department determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the CAMU meets or exceeds the liner standards for new, replacement, or laterally expanded CAMUs in 335-14-5-.19(3)(e)3.(i) and (ii), or the CAMU provides substantially equivalent or greater protection.

(vi) The treatment required by the treatment standards must be completed prior to, or within a reasonable time after, placement in the CAMU.

(vii) For the purpose of determining whether wastes placed in CAMUs have met site-specific treatment standards, the Department may, as appropriate, specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents. This specification will be based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

5. Except as provided in 335-14-5-.19(3)(f), requirements for ground water monitoring and corrective action that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU; and

(iii) Require notification to the Department and corrective action as necessary to protect human health and the environment for releases to ground water from the CAMU.

6. Except as provided in 335-14-5-.19(3)(f), closure and post-closure requirements:

(i) Closure of corrective action management units shall:

(I) Minimize the need for further maintenance; and

(II) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Department for a given CAMU:

(I) Requirements for excavation, removal, treatment or containment of wastes; and

(II) Requirements for removal and decontamination of equipment, devices, and structures used in CAMU-eligible waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under 335-14-5-.19(3)(e), the Department shall consider the following factors:

- (I) CAMU characteristics;
- (II) Volume of wastes which remain in place after closure;
- (III) Potential for releases from the CAMU;
- (IV) Physical and chemical characteristics of the waste;
- (V) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(VI) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Cap requirements:

(I) At final closure of the CAMU, for areas in which wastes will remain after closure of the CAMU, with constituent concentrations at or above remedial levels or goals applicable to the site, the owner or operator must cover the CAMU with a final cover designed and constructed to meet the following performance criteria, except as provided in 335-14-5-.19(3)(e)6.(iv)(II):

I. Provide long-term minimization of migration of liquids through the closed unit;

II. Function with minimum maintenance;

III. Promote drainage and minimize erosion or abrasion of the cover;

IV. Accommodate settling and subsidence so that the cover's integrity is maintained; and

V. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(II) The Department may determine that modifications to 335-14-5-.19(3)(e)6.(iv)(I) are needed to facilitate treatment or the performance of the CAMU (e.g., to promote biodegradation).

(v) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) CAMUs used for storage and/or treatment only are CAMUs in which wastes will not remain after closure. Such CAMUs must be designated in accordance with all of the requirements of 335-14-5-.19, except as follows.

1. CAMUs that are used for storage and/or treatment only and that operate in accordance with the time limits established in the staging pile regulations at 335-14-5-.19(5)(d)1.(iii), (h), and (i) are subject to the requirements for staging piles at 335-14-5-.19(5)(d)1.(i) and (ii), 335-14-5-.19(5)(d)2., 335-14-5-.19(5)(e) and (f), and 335-14-5-.19(5)(j) and (k) in lieu of the performance standards and requirements for CAMUs at 335-14-5-.19(3)(c) and (e)3. through 6.

2. CAMUs that are used for storage and/or treatment only and that do not operate in accordance with the time limits established in the staging pile regulations at 335-14-5-.19(5)(d)1.(iii), (h), and (i):

(i) Must operate in accordance with a time limit, established by the Department, that is no longer than necessary to achieve a timely remedy selected for the waste, and

(ii) Are subject to the requirements for staging piles at 335-14-5-.19(5)(d)1.(i) and (ii), 335-14-5-.19(5)(d)2., 335-14-5-.19(5)(e) and (f), and 335-14-5-.19(5)(j) and (k) in lieu of the performance standards and requirements for CAMUs at 335-14-5-.19(3)(c) and 335-14-5-.19(3)(e)4. and 6.

(g) CAMUs into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site do not have to comply with the requirements for liners at 335-14-5-.19(3)(e)3.(i), caps at 335-14-5-.19(3)(e)6.(iv), ground water monitoring requirements at 335-14-5-.19(3)(e)5. or, for treatment and/or storage-only CAMUs, the design standards at 335-14-5-.19(3)(f).

(h) The Department shall provide public notice and a reasonable opportunity for public comment before designating a CAMU. Such notice shall include the rationale for any proposed adjustments under 335-14-5-.19(3)(e)4.(v) to the treatment standards in 335-14-5-.19(3)(e)4.(iv).

(i) Notwithstanding any other provision of 335-14-5-.19, the Department may impose additional requirements as necessary to protect human health and the environment.

(j) Incorporation of a CAMU into an existing permit must be approved by the Department according to the procedures for permit modifications under 335-14-8-.04(2).

(k) The designation of a CAMU does not change ADEM's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(4) Temporary Units (TU).

(a) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required under 335-14-5-.06(12), §22-30-19 et. seq., Code of Alabama 1975 and/or RCRA Section 3008(h), or at a permitted facility that is not subject to 335-14-5-.06(12), the

Department may designate a unit at the facility as a temporary unit. A temporary unit must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the temporary unit originated. For temporary units, the Department may replace the design, operating, or closure standard applicable to these units under 335-14-5 or 335-14-6 with alternative requirements which protect human health and the environment.

(b) Any temporary unit to which alternative requirements are applied in accordance with 335-14-5-.19(2)(a) shall be:

1. Located within the facility boundary; and
2. Used only for treatment or storage of remediation wastes.

(c) In establishing standards to be applied to a temporary unit, the Department shall consider the following factors:

1. Length of time such unit will be in operation;
2. Type of unit;
3. Volumes of wastes to be managed;
4. Physical and chemical characteristics of the wastes to be managed in the unit;
5. Potential for releases from the unit;
6. Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases; and
7. Potential for exposure of humans and environmental receptors if releases were to occur from the unit.

(d) The Department shall specify in the permit or order the length of time a temporary unit will be allowed to operate, to be no longer than a period of one year. The Department shall also specify the design, operating, and closure requirements for the unit.

(e) The Department may extend the operational period of a temporary unit once for no longer than a period of one year beyond that originally specified in the permit or order, if the Department determines that:

1. Continued operation of the unit will not pose a threat to human health and the environment; and
2. Continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(f) Incorporation of a temporary unit or a time extension for a temporary unit into an existing permit shall be:

1. Approved in accordance with the procedures for State of Alabama-initiated permit modifications under 335-14-8-.04(2); or

2. Requested by the owner/operator as a major modification according to the procedures under Rule 335-14-8-.04(2).

(g) The Department shall document the rationale for designating a temporary unit and for granting time extensions for temporary units and shall make such documentation available to the public.

(5) Staging piles.

(a) A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in 335-14-1-.02) that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by ADEM in accordance with the requirements in 335-14-5-.19.

1. For the purposes of 335-14-5-.19(5), storage includes mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the wastes for subsequent management or treatment.

2. Reserved.

(b) A staging pile may be used to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if following the standards and design criteria ADEM has designated for that staging pile. ADEM must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with 335-14-8-.07(3)(a)5. and (b)5.). ADEM must establish conditions in the permit, closure plan, or order that comply with 335-14-5-.19(3)(d) through (k).

(c) Staging pile designation. When seeking a staging pile designation, the following must be provided:

1. Sufficient and accurate information to enable ADEM to impose standards and design criteria for your staging pile according to 335-14-5-.19(3)(d) through (k);

2. Certification by a qualified Professional Engineer for technical data, such as design drawings and specifications, and engineering studies, unless ADEM determines, based on information that you provide, that this certification is not necessary to ensure that a staging pile will protect human health and the environment; and



3. Any additional information ADEM determines is necessary to protect human health and the environment.

(d) Staging pile performance criteria. ADEM must establish the standards and design criteria for the staging pile in the permit, closure plan, or order.

1. The standards and design criteria must comply with the following:

(i) The staging pile must facilitate a reliable, effective and protective remedy;

(ii) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate); and

(iii) The staging pile must not operate for more than two years, except when ADEM grants an operating term extension under 335-14-5-.19(3)(i). The two-year limit, or other operating term specified by ADEM in the permit, closure plan, or order, is measured from the first time remediation waste is placed into a staging pile. Records of the date remediation waste is placed into the staging pile must be maintained for the life of the permit, closure plan, or order, or for three years, whichever is longer.

2. In setting the standards and design criteria, ADEM must consider the following factors:

(i) Length of time the pile will be in operation;

(ii) Volumes of wastes intended to be stored in the pile;

(iii) Physical and chemical characteristics of the wastes to be stored in the unit;

(iv) Potential for releases from the unit;

(v) Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

(vi) Potential for human and environmental exposure to potential releases from the unit;

(e) Receipt of ignitable or reactive remediation waste in a staging pile. Ignitable or reactive remediation waste must not be placed in a staging pile unless:

1. Remediation waste must be treated, rendered or mixed before being placed it in the staging pile so that:

(i) The remediation waste no longer meets the definition of ignitable or reactive under 335-14-2-.03(2) or 335-14-2-.03(4); and

(ii) The owner or operator has complied with 335-14-5-.02(8)(b); or

2. The remediation waste must be managed to protect it from exposure to any material or condition that may cause it to ignite or react.

(f) Handling incompatible remediation wastes in a staging pile. The term "incompatible waste" is defined in 335-14-1-.02. The owner or operator must comply with the following requirements for incompatible wastes in staging piles:

1. Incompatible remediation wastes must not be placed in the same staging pile unless compliance with 335-14-5-.02(8)(b) has occurred;

2. If remediation waste in a staging pile is incompatible with any waste or material stored nearby in containers, other piles, open tanks or land disposal units (for example, surface impoundments), you must separate the incompatible materials, or protect them from one another by using a dike, berm, wall or other device; and

3. Remediation waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to comply with 335-14-5-.02(8)(b).

(g) Staging piles are subject to Land Disposal Restrictions (LDR) and Minimum Technological Requirements (MTR). Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o).

(h) Length of staging pile operation. ADEM may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. A staging pile may be used no longer than the length of time designated by ADEM in the permit, closure plan, or order (the "operating term"), except as provided in 335-14-5-.19(5)(i).

(i) Operating extension for a staging pile

1. ADEM may grant one operating term extension of up to 180 days beyond the operating term limit contained in the permit, closure plan, or order (see 335-14-5-.19(5)(l) for modification procedures). To justify to ADEM the need for an extension, sufficient and accurate information must be provided to enable ADEM to determine that continued operation of the staging pile:

(i) Will not pose a threat to human health and the environment; and

(ii) Is necessary to ensure timely and efficient implementation of remedial actions at the facility.

2. ADEM may, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure protection of human health and the environment.

(j) Closure requirement for a staging pile located in a previously contaminated area

1. Within 180 days after the operating term of the staging pile expires, a staging pile located in a previously contaminated area of the site must be closed by removing or decontaminating all:

(i) Remediation waste;

(ii) Contaminated containment system components; and

(iii) Structures and equipment contaminated with waste and leachate.

2. Contaminated subsoils must be decontaminated in a manner and according to a schedule that ADEM determines will protect human health and the environment.

3. ADEM must include the above requirements in the permit, closure plan, or order in which the staging pile is designated.

(k) Closure requirement for a staging piles located in an uncontaminated area.

1. Within 180 days after the operating term of the staging pile expires, you must close a staging pile located in an uncontaminated area of the site according to 335-14-5-.12(9)(a) and 335-14-5-.07(2); or according to 335-14-6-.12(9)(a) and 335-14-6-.07(2).

2. ADEM must include the above requirement in the permit, closure plan, or order in which the staging pile is designated.

(l) Modifying an existing permit, closure plan, or order to allow for use of a staging pile.

1. To modify a permit, to incorporate a staging pile or staging pile operating term extension, either:

(i) ADEM must approve the modification under the procedures for ADEM-initiated permit modifications in 335-14-8-.04(2); or

(ii) Request a major modification under 335-14-8-.04(2).

2. **[Reserved].**

3. To modify a closure plan to incorporate a staging pile or staging pile operating term extension, the owner or operator must follow the applicable requirements under 335-14-5-.07(3)(c) or 335-14-6-.07(3)(c).

4. To modify an order to incorporate a staging pile or staging pile operating term extension, the owner or operator must follow the terms of the order and the applicable provisions of 335-14-8-.07(3)(a)5. or (b)5.

(m) Public information. ADEM must document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.

(6) Disposal of CAMU-eligible wastes in permitted hazardous waste landfills.

(a) The Department with regulatory oversight at the location where the cleanup is taking place may approve placement of CAMU-eligible wastes in hazardous waste landfills not located at the site from which the waste originated, without the wastes meeting the requirements of 335-14-9, if the conditions in 335-14-5-.19(6)(a)1. through 3. are met:

1. The waste meets the definition of CAMU-eligible waste in 335-14-5-.19(3)(a)1. and 2.

2. The Department with regulatory oversight at the location where the cleanup is taking place identifies principal hazardous constituents in such waste, in accordance with 335-14-5-.19(3)(e)4.(i) and (ii), and requires that such principal hazardous constituents are treated to any of the following standards specified for CAMU-eligible wastes:

(i) The treatment standards under 335-14-5-.19(3)(e)4.(iv); or

(ii) Treatment standards adjusted in accordance with 335-14-5-.19(3)(e)4.(v)(I), (III), (IV) or (V)I.; or

(iii) Treatment standards adjusted in accordance with 335-14-5-.19(3)(e)4.(v)(V)II., where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

3. The landfill receiving the CAMU-eligible waste must have a RCRA hazardous waste permit, meet the requirements for new landfills in 335-14-5-.14, and be authorized to accept CAMU-eligible wastes; for the purposes of this requirement, "permit" does not include interim status.

(b) The person seeking approval shall provide sufficient information to enable the Department with regulatory oversight at the location where the cleanup is taking place to approve placement of CAMU-eligible waste in accordance with 335-14-5-.19(6)(a). Information required by 335-14-5-.19(3)(d)1. through 3. for CAMU applications must be provided, unless not reasonably available.

(c) The Department with regulatory oversight at the location where the cleanup is taking place shall provide public notice and a reasonable opportunity for

public comment before approving CAMU eligible waste for placement in an off-site permitted hazardous waste landfill, consistent with the requirements for CAMU approval at 335-14-5-.19(3)(h). The approval must be specific to a single remediation.

(d) Applicable hazardous waste management requirements in this part, including recordkeeping requirements to demonstrate compliance with treatment standards approved under 335-14-5-.19, for CAMU-eligible waste must be incorporated into the receiving facility permit through permit issuance or a permit modification, providing notice and an opportunity for comment and a hearing. Notwithstanding 335-14-8-.01(4)(a), a landfill may not receive hazardous CAMU-eligible waste under 335-14-5-.19 unless its permit specifically authorizes receipt of such waste.

(e) For each remediation, CAMU-eligible waste may not be placed in an off-site landfill authorized to receive CAMU-eligible waste in accordance with 335-14-5-.19(6)(d) until the following additional conditions have been met:

1. The landfill owner/operator notifies the Department responsible for oversight of the landfill and persons on the facility mailing list, maintained in accordance with 335-14-8-.08(6)(c)1.(ix), of his or her intent to receive CAMU-eligible waste in accordance with 335-14-5-.19; the notice must identify the source of the remediation waste, the principal hazardous constituents in the waste, and treatment requirements.

2. Persons on the facility mailing list may provide comments, including objections to the receipt of the CAMU-eligible waste, to the Department within 15 days of notification.

3. The Department may object to the placement of the CAMU-eligible waste in the landfill within 30 days of notification; the Department may extend the review period an additional 30 days because of public concerns or insufficient information.

4. CAMU-eligible wastes may not be placed in the landfill until the Department has notified the facility owner/operator that he or she does not object to its placement.

5. If the Department objects to the placement or does not notify the facility owner/operator that he or she has chosen not to object, the facility may not receive the waste, notwithstanding 335-14-8-.01(4)(a), until the objection has been resolved, or the owner/operator obtains a permit modification in accordance with the procedures of 335-14-8-.04(2) specifically authorizing receipt of the waste.

6. As part of the permit issuance or permit modification process of 335-14-5-.19(6)(d), the Department may modify, reduce, or eliminate the notification requirements of this paragraph as they apply to specific categories of CAMU-eligible waste, based on minimal risk.

(f) Generators of CAMU-eligible wastes sent off-site to a hazardous waste landfill under 335-14-5-.19 must comply with the requirements of 335-14-9-.01(7); off-site facilities treating CAMU-eligible wastes to comply with

335-14-5-.19 must comply with the requirements of 335-14-9-.01(7), except that the certification must be with respect to the treatment requirements of 335-14-5-.19(6)(a)2.

(g) For the purposes of 335-14-5-.19 only, the “design of the CAMU” in 335-14-5-.19(3)(e)4.(v)(V) means design of the permitted Subtitle C landfill.

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