

TRANSMITTAL SHEET FOR  
NOTICE OF INTENDED ACTION

Control No. 335 Department or Agency Environmental Management  
Rule No. 335-14-5-.30  
Rule Title: Containment Buildings

         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.

\*\*\*\*\*  
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     Marilyn 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.

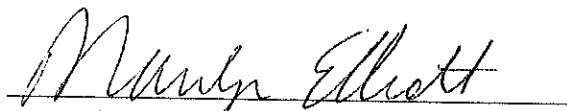
**TIME, PLACE, MANNER OF PRESENTING VIEWS**

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.

  
Lance R. Lefleur  
Director

**335-14-5-.30      Containment Buildings.**

(1)      Applicability. The requirements of 335-14-5-.30 apply to owners or operators who store or treat hazardous waste in units designed and operated under 335-14-5-.30(2). ~~These provisions will become effective on February 18, 1993, although owner or operator may notify the Director of his intent to be bound by 335-14-5-.30 at an earlier time.~~ The owner or operator is not subject to the definition of land disposal in ~~Chapter 335-14-1RCRA § 3004(K)~~ provided that the unit:

(a)      Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b)      Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

(c)      If the unit is used to manage liquids, has:

1.      A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

2.      A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier, and

3.      A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under 335-14-5-.30(2).

(d)      Has controls sufficient to prevent fugitive dust emissions to meet the no visible emission standard in 335-14-5-.30(2)(c)1.(iv); and

(e)      Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

(2)      Design and operating standards.

(a)      All containment buildings must comply with the following design standards:

1.      The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

2. The floor and containment walls of the unit, including the secondary containment system if required under 335-14-5-.30(2)(b), must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The Department will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of 335-14-5-.30(2). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under 335-14-5.30(2)(c)1.(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

3. Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4. A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

1. A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

2. A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier must be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

3. A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(I) Constructed with a bottom slope of 1 percent or more; and

(II) Constructed of a granular drainage material with a hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of  $3 \times 10^{-5} \text{m}^2/\text{sec}$  or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of 335-14-5-.10(4)(e)1. In addition, the containment building must meet the requirements of 335-14-5-.10(4)(b) and 335-14-5-.10(4)(c)1. and 2. to be considered an acceptable secondary containment system for a tank.)

4. For existing units other than 90-day generator units, the Director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of 335-14-5-.30. In making this demonstration, the owner or operator must:

(i) Provide written notice to the Director of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Director on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Director.

(c) Owners or operators of all containment buildings must:

1. Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR Part 60, Appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices (see 40 CFR Part 60 Subpart 292 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

2. Obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of 335-14-5-.30(2)(a) through (c). A qualified Professional Engineer certification will be required prior to operation of the unit.

3. Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator must repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

(I) Enter a record of the discovery in the facility operating record;

(II) Immediately remove the portion the containment building affected by the condition from service;

(III) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(IV) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(ii) The Director will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are completed and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator must notify the Director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with 335-14-5-.30(2)(c)3.(i)(IV).

4. Inspect and record in the facility's operating record, at least once every seven weekdays, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment buildings that contains both -areas with and without secondary containment, the owner or operator must:

1. Design and operate each area in accordance with the requirements enumerated in 335-14-5-.30(2)(a) through (c);

2. Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

3. Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of 335-14-5-.30 the Director may waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(3) Closure and post-closure care.

(a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liner, etc.) contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in 335-14-5-.07 and 335-14-5-.08.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-5-.30(3)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills [335-14-5-.14(11)]. In addition, for the purposes of closure, post-closure and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in 335-14-5-.07 and 335-14-5-.08.

**Authors:** C. Lynn Garthright; C. Edwin Johnston; Michael B. Champion; Theresa A. Maines; Vernon H. Crockett.

**Statutory Authority:** Code of Alabama 1975, §§22-30-11, 22-30-16.

**History:** January 5, 1995.

**Amended:** April 13, 2001; March 15, 2002; April 17, 2003; April 3, 2007; XXXXX, XXXX.