

APA-1
07/04

**TRANSMITTAL SHEET FOR
NOTICE OF INTENDED ACTION**

Control No. 335 Department or Agency Environmental Management
Rule No. 335-14- 5-.02
Rule Title: General Facility Standards

 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

Does the proposed rule have an economic impact? NO

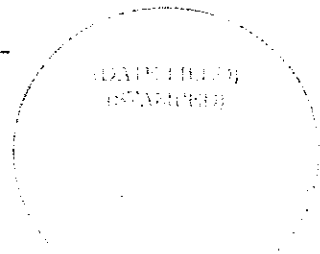
If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of section 41-22-23, Code of Alabama 1975.

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 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

<u>RULE NO. & TITLE:</u>	335 14-5-.01	<u>General (Amend)</u>
	335-14-5-.02	<u>General Facility Standards (Amend)</u>
	335 14-5-.03	<u>Preparedness and Prevention (Amend)</u>
	335-14-5-.05	<u>Manifest System, Recordkeeping and Reporting (Amend)</u>
	335 14-5-.06	<u>Releases from Solid Waste Management Units (Amend)</u>
	335 14-5-.07	<u>Closure and Post Closure (Amend)</u>
	335 14-5-.08	<u>Financial Requirements (Amend)</u>
	335 14-5-.09	<u>Use and Management of Containers (Amend)</u>

INTENDED ACTION: Revise Division 14 of the ADEM Administrative Code.

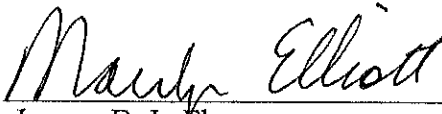
SUBSTANCE OR PROPOSED ACTION: Revise portions of Division 14 Regulations to incorporate changes to ensure consistency with State and Federal Statutes; to adopt certain State specific requirements; and to provide clarification of State requirements for the management of hazardous waste.

TIME, PLACE, MANNER OF PRESENTING VIEWS:

Comments may be submitted in writing or orally at a public hearing to be held December 6, 2017 at 1:30 PM 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: Vernon H. Crockett, Chief of the Industrial Hazardous Waste Branch, ADEM Land Division (334/270-5627)



Lance R. Lefleur
Director

335-14-5-.02 General Facility Standards.

(1) Applicability.

(a) The requirements of 335-14-5-.02 apply to owners and operators of all hazardous waste facilities, except as provided in 335-14-5-.01(1).

(b) **[Reserved].**

(2) Identification number. Every facility owner or operator must obtain an EPA identification number by submitting a correct and complete ADEM Form 8700-12 to the Department, along with the appropriate fees specified in ADEM Admin. Code Rule 335-1-6.

(3) Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste subject to 335-14-3-.09 from a foreign source must submit the following required notices:

1. The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Department in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required. For imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and obtain consent from EPA and the competent authorities for the countries of transit, such owner or operator of the facility, if acting as the importer, must provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in 335-14-.09(5) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

2. a copy of the movement document bearing all required signatures within three (3) working days of receipt of the shipment to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original of the signed movement document must be maintained at the facility for at least three (3) years. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, provided that copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its

successor system for which the owner or operator of a facility bears no responsibility. The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to 335-14-3.09 must provide a copy of the movement document bearing all required signatures to the foreign exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; to the Alabama Department of Environmental Management, P. O. Box 301463, Montgomery, AL 36130; and to the competent authorities of all other countries concerned within three (3) working days of receipt of the shipment. The original of the signed movement document must be maintained at the facility for at least three (3) years. In addition, such owner or operator shall, as soon as possible, but no later than thirty (30) days after the completion of recovery and no later than one (1) calendar year following the receipt of the hazardous waste, send a certificate of recovery to the foreign exporter and to the competent authority of the country of export and to EPA's Office of Enforcement and Compliance Assurance at the above address by mail, e-mail without a digital signature followed by mail, or fax followed by mail.

3. If the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, such owner or operator of the facility must inform EPA, using the allowable methods listed in 335-14-.09(5) of the need to return or arrange alternate management of the shipment.

4. Such owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than thirty days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(ii) If the facility performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC16, or one of disposal operations D1 through D12, or DC15 to DC16, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in this paragraph are defined in 335-14-.09(2).

(b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of 335-14-5 and 335-14-8. (An owner's or operator's failure to notify the new owner or operator of the requirements of 335-14-5 in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.)

(d)1. A facility owner or operator must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current waste activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at 335-14-1-.02(1)(a).

2. In order to eliminate the need for multiple notifications during the reporting year, facilities which anticipate periodically switching between generator classifications should notify for the higher classification (i.e., if a facility typically operates as a small quantity generator, but anticipates being a large quantity generator for any period during the year, they should notify as a large quantity generator); and

3. The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in ADEM Admin. Code Rule 335-1-6.

(4) General waste analysis.

(a)1. Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of 335-14-5, 335-14-7, and 335-14-9 and with the conditions of a permit issued under 335-14-8.

2. The analysis may include data developed under 335-14-2 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

3. The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), has changed; and

(ii) For off-site facilities, when the results of the inspection or analysis required in 335-14-5-.02(4)(a)4. indicate that the hazardous waste received at the facility does not match the waste described on the accompanying manifest or shipping paper.

4. The owner or operator of an off-site facility must inspect and analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with 335-14-5-.02(4)(a). He must keep this plan at the facility. At a minimum, the plan must specify:

1. The parameters for which each hazardous waste, or non-hazardous waste if applicable under 335-14-5-.07(4)(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with 335-14-5-.02(4)(a));

2. The test methods which will be used to test for these parameters;

3. The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in 335-14-2 - Appendix I; or

(ii) An equivalent sampling method approved by the Department;

4. The frequency, approved by the Department, with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

5. For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

6. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in 335-14-5-.02(8), 335-14-5-.14(15), 335-14-5-.15(2), 335-14-5-.27, 335-14-5-.28, 335-14-5-.29, 335-14-7-.08(3), and 335-14-9-.01(7).

7. For surface impoundments exempted from land disposal restrictions under 335-14-9-.01(4), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and

(iii) The annual removal of residues which are not delisted under 335-14-1-.03(2) or which exhibit a characteristic of hazardous waste and either:

(l) Do not meet applicable treatment standards 335-14-9-.04; or

- (II) Where no treatment standards have been established;
 - I. Such residues are prohibited from land disposal under 335-14-9-.03(13) or RCRA Section 3004(d); or
 - II. Such residues are prohibited from land disposal under 335-14-9-.03(14).
- 8. For owners and operators seeking an exemption to the air emission standards of 335-14-5-.29 :
 - (i) The procedures and schedules for waste sampling and analysis, and the analysis of test data to verify the exemption.
 - (ii) Each generator's notice and certification of the volatile organic concentration in the waste if the waste is received from off site.
 - (c) For off-site facilities, the waste analysis plan required in 335-14-5-.02(4)(b) must also specify the procedures which will be used to inspect and analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe and justify:
 - 1. The procedures which will be used to determine the identity of each movement of waste managed at the facility and shall include collection of representative samples which will be obtained from each waste stream from each shipment of waste received from each generator and analyzed in accordance with the requirements of 335-14-5-.02(4) to accurately identify each movement of hazardous waste received at the facility;
 - 2. The sampling method and number of samples which will be used to obtain a representative sample of the waste stream to be identified;
 - 3. The method(s) which will be used to analyze the sample(s); and
 - 4. The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.
 - (d) For off-site facilities, samples of waste(s) from each generator collected in accordance with the requirements of 335-14-5-.02(4)(c) may be composited prior to analysis provided that:
 - 1. No more than ten individual samples are composited into any one sample for analysis;
 - 2. Only compatible wastes from the same generator and waste stream are composited into any one sample which is to be analyzed; and

3. In the event that the analytical results of sample(s) obtained in compliance with the requirements 335-14-5-.02(4) indicate that the hazardous waste received at the facility does not match the waste described on the accompanying manifest or shipping paper, the facility owner or operator shall:

- (i) Collect and analyze a representative sample from each container;
- (ii) Identify the container(s) holding the waste(s) which cause the discrepancy to occur; and
- (iii) Comply with the requirements of 335-14-5-.05(3)(c).
- (e) Upon receipt of a satisfactory demonstration based on the types of waste received and treated, stored or disposed of at the facility, processes utilized to manage the waste, and any other reasonable factors, the Department may grant a partial or full exemption from the requirements for the sampling and analysis of each shipment of waste as required by 335-14-5-.02(4)(c).

[**Note:** The term "movement" as used in 335-14-5-.02(4) refers to individual truckloads, batches, shipments, etc., of wastes received at the facility. It is not intended to impose requirements for additional waste analyses for internal movements of wastes within the facility unless otherwise required by Division 335-14.]

(5) Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Department that:

1. Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of the facility; and

2. Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of the facility, will not cause a violation of 335-14-5.

(b) Unless the owner or operator has made a successful demonstration under 335-14-5-.02(5)(a)1. and (a)2., a facility must have:

1. A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

2.(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(c) Unless the owner or operator has made a successful demonstration under 335-14-5-.02(5)(a)1. and (a)2., a sign with the legend "Danger-Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of the facility, and at other locations, in sufficient numbers to be seen from any approach to the active portion. The legend must be written in English and in any other language predominant in the workplace and the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger-Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

(6) General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to, the release of hazardous waste constituents to the environment or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)1. The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or health hazards.

2. He must keep the schedule at the facility.

3. The schedule must identify the types of problems which are to be looked for during the inspection.

4. The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in 335-14-5-.09(5), 335-14-5-.10(4), 335-14-5-.10(6), 335-14-5-.11(7), 335-14-5-.12(5), 335-14-5-.13(9), 335-14-5-.14(4), 335-14-5-.15(8), 335-14-5-.24(3), 335-14-5-.27, 335-14-5-.28, 335-14-5-.28, 335-14-5-.28, and 335-14-5-.29) where applicable.

[Comment: 335-14-8 requires the inspection schedule to be submitted with Part B of the permit application. ADEM will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the Department may modify or amend the schedule as may be necessary.]

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health

hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(7) Personnel training.

(a) Facility personnel whose duties have a direct effect on hazardous waste management and/or hazardous waste accumulation, whether by direct contact with the hazardous waste or through hazardous waste management activities, must receive training.

1. Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 335-14-5. The owner or operator must ensure that this program includes all the elements described in the document required under 335-14-5-.02(7)(d)3.

2. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

3. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to groundwater contamination incidents; and

(vi) Shutdown of operations.

4. For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to 335-14-5-.02(7), provided that the overall facility training meets all the requirements of 335-14-5-.02(7).

(b) Facility personnel must successfully complete the program required in 335-14-5-.02(7)(a) within six months after the effective date of these rules or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these rules must not work in unsupervised positions until they have completed the training requirements of 335-14-5-.02(7)(a).

(c) Facility personnel must take part in an annual review of the initial training required in 335-14-5-.02(7)(a).

(d) The owner or operator must maintain the following documents and records at the facility:

1. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

2. A written job description for each position listed under 335-14-5-.02(7)(d)1. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under 335-14-5-.02(7)(d)1.; and

4. Records that document that the training or job experience required under 335-14-5-.02(7)(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(8) General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting, and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other paragraphs of 335-14-5, the owner or operator of a facility that treats, stores, or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:

1. Generate extreme heat or pressure, fire or explosions, or violent reactions;
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
4. Damage the structural integrity of the device or facility;
5. Through other like means threaten human health or the environment.

(c) When required to comply with 335-14-5-.02(8)(a) or (b), the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in 335-14-5-.02(4)), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(9) Location standards.

(a) **[Reserved].**

(b)1. Floodplains. A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Department's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

(ii) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(I) The volume and physical and chemical characteristics of the waste in the facility;

(II) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(III) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(IV) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

2. As used in 335-14-5-.02(9)(b)1.:

(i) "100-year floodplain" means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(ii) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) "100-year flood" means a flood that has a one percent chance of being equaled or exceeded in any given year.

(c) Salt dome formations, salt bed formations, underground mines, and caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

(10) Construction quality assurance program.

(a) CQA program.

1. A construction quality assurance (CQA) program is required for all surface impoundment, waste pile and landfill units that are required to comply with 335-14-5-.11(2)(c) and (d), 335-14-5-.12(2)(c) and (d), and 335-14-5-.14(2)(b). The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

2. The CQA program must address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes (flexible membrane liners);

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. The owner or operator of units subject to the CQA program under 335-14-5-.02(10)(a) must develop and implement a written CQA

plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include:

1. Identification of applicable units and a description of how they will be constructed.

2. Identification of key personnel in the development and implementation of the CQA plan and CQA officer qualifications.

3. A description of inspection and sampling activities for all unit components identified in 335-14-5-.02(10)(a)2., including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under 335-14-5-.05(4).

(c) Contents of program.

1. The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in 335-14-5-.02(10)(a)2.;

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications; and

(iii) Conformity of all materials used with design and other material specifications under 335-14-5-.11(2), 335-14-5-.12(2), and 335-14-5-.14(2).

2. The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1.(i)(II), 335-14-5-.12(2)(c)1.(i)(II), and 335-14-5-.14(2)(b)1.(i)(II) in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The Department may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1.(i)(II), 335-14-5-.12(2)(c)1.(i)(II), and 335-14-5-.14(2)(b)1.(i)(II) in the field.

(d) Certification. Waste shall not be received in a unit subject to 335-14-5-.02(10) until the owner or operator has submitted to the Department by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements

of 335-14-5-.11(2)(c) or (d), 335-14-5-.12(2)(c) or (d), or 335-14-5-.14(2)(b); and the procedure in 335-14-8-.03(1)(l)2.(ii) has been completed. Documentation supporting the CQA officer's certification must be furnished to the Department upon request.

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

History: July 19, 1982.

Amended: April 9, 1986; September 29, 1986; February 15, 1988; August 24, 1989; December 6, 1990; January 25, 1992; January 1, 1993; January 5, 1995; January 12, 1996; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; March 31, 2005; April 4, 2006; April 3, 2007; March 30, 2010; March 31, 2011; April 3, 2012; March 31, 2017. XXXX, 2018