

TRANSMITTAL SHEET FOR
NOTICE OF INTENDED ACTION

Control 335 Department or Agency Environmental Management
Rule No. 335-13-15-.02
Rule Title: Definitions

X New 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

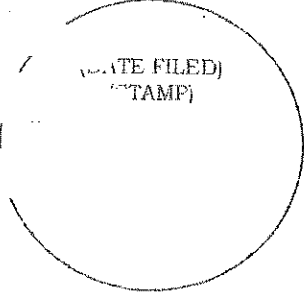
If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of section 41-22-23, Code of Alabama 1975.

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 Services Agency.

Signature of certifying officer Mindy Elliott

Date January 22, 2018



APA-2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION

NOTICE OF INTENDED ACTION

AGENCY NAME: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RULE NO. & TITLE:

335-13-15-.01 General Provisions (Adopt)
335-13-15-.02 Definitions (Adopt)
335-13-15-.03 Location Restrictions (Adopt)
335-13-15-.04 Design Criteria (Adopt)
335-13-15-.05 Operating Criteria (Adopt)
335-13-15-.06 Groundwater Monitoring and Corrective Action (Adopt)
335-13-15-.07 Closure and Post-Closure Care (Adopt)
335-13-15-.08 Recordkeeping, Notification, and Posting of Information to the Internet (Adopt)
335-13-15-.09 Permit Application (Adopt)
335-13-15-.10 Public Notice (Adopt)
335-13-15-.11 Public Hearing (Adopt)
335-13-15-.12 Permit Denial, Suspension or Revocation (Adopt)
335-13-15-.13 Permit Modification (Adopt)
335-13-15-.14 Transfer of Permit (Adopt)
335-13-15-.15 Variances (Adopt)
335-13-15-App III CCR Constituents for Detection Monitoring
335-13-15-App IV CCR Constituents for Assessment Monitoring

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


SUBSTANCE OR PROPOSED ACTION: Revise portions of Division 13 Regulations to incorporate changes to ensure consistency with State and Federal Statutes; adopt certain State specific requirements; and provide clarification of State requirements for the management of solid waste, and adopt standards for the disposal of coal combustion residuals (CCR) in landfills and surface impoundments as promulgated by EPA.

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

TIME, PLACE, MANNER OF PRESENTING VIEWS: Comments may be submitted in writing or orally at a public hearing to be held Wednesday, March 21, 2018 at 10:30 AM in the Main Hearing Room at the ADEM Central Office located at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: March 21, 2018

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

A handwritten signature in black ink, appearing to read "Lance R. LeFleur", is written over a horizontal line.

Lance R. LeFleur
Director

335-13-15-.02 Definitions. When used in this chapter, the following terms have the meaning given below:

(1) Acre foot - the volume of one acre of surface area to a depth of one foot.

(2) Active facility or active electric utilities or independent power producers - any facility subject to the requirements of this chapter that is in operation on October 19, 2015. An electric utility or independent power producer is in operation if it is generating electricity that is provided to electric power transmission systems or to electric power distribution systems on or after October 19, 2015. An off-site disposal facility is in operation if it is accepting or managing CCR on or after October 19, 2015.

(3) Active life or in operation - the period of operation beginning with the initial placement of CCR in the CCR unit and ending at completion of closure activities in accordance with 335-13-15-.07(3).

(4) Active portion - that part of the CCR unit that has received or is receiving CCR or non-CCR waste and that has not completed closure in accordance with 335-13-15-.07(3).

(5) Aquifer - a geologic formation, group of formations, or portion of a formation capable of yielding usable quantities of groundwater to wells, springs or waters of the state.

(6) Area-capacity curves - graphic curves which readily show the reservoir water surface area, in acres, at different elevations from the bottom of the reservoir to the maximum water surface, and the capacity or volume, in acre-feet, of the water contained in the reservoir at various elevations.

(7) Areas susceptible to mass movement - those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where, because of natural or human-induced events, the movement of earthen material at, beneath, or adjacent to the CCR unit results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

(8) Beneficial use of CCR - the CCR meet all of the following conditions:

(a) The CCR must provide a functional benefit;

(b) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;

(c) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and

(d) When unencapsulated use of CCR involves placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

(9) Closed - placement of CCR in a CCR unit has ceased, and the owner or operator has completed closure of the CCR unit in accordance with 335-13-15-.07(3) and has initiated post-closure care in accordance with 335-13-15-.07(5).

(10) Coal combustion residuals (CCR) - fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

(11) CCR fugitive dust - solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

(12) CCR landfill or landfill - an area of land or an excavation that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this chapter, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

(13) CCR pile or pile - any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. CCR that is beneficially used off-site is not a CCR pile.

(14) CCR surface impoundment or impoundment - a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

(15) CCR unit - any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.

(16) Dike - an embankment, berm, or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(17) Downstream toe - the junction of the downstream slope or face of the CCR surface impoundment with the ground surface.

(18) Encapsulated beneficial use - a beneficial use of CCR that binds the CCR into a solid matrix that minimizes its mobilization into the surrounding environment.

(19) Existing CCR landfill - a CCR landfill that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015. A CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.

(20) Existing CCR surface impoundment - a CCR surface impoundment that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015. A CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.

(21) Facility - all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

(22) Factor of safety (Safety factor) - the ratio of the forces tending to resist the failure of a structure to the forces tending to cause such failure as determined by accepted engineering practice.

(23) Flood hydrograph - a graph showing, for a given point on a stream, the discharge, height, or other characteristic of a flood as a function of time.

(24) Freeboard - the vertical distance between the lowest point on the crest of the impoundment dike and the surface of the waste contained therein.

(25) Hazard potential classification - the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked

CCR surface impoundment or its appurtenances. The hazardous potential classifications include high hazard potential CCR surface impoundment, significant hazard potential CCR surface impoundment, and low hazard potential CCR surface impoundment, which terms mean:

(a) High hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation will probably cause loss of human life.

(b) Low hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property.

(c) Significant hazard potential CCR surface impoundment - a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.

(26) Hazardous constituents - those substances listed in 335-14-2 Appendix VIII and/or 335-14-5 Appendix IX and include hazardous constituents released from solid waste, hazardous waste, or hazardous waste constituents that are reaction by-products.

(27) Height - the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment.

(28) Hydraulic conductivity - the rate at which water can move through a permeable medium (i.e., the coefficient of permeability).

(29) Inactive CCR surface impoundment - a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and still contains both CCR and liquids on or after October 19, 2015.

(30) Incised CCR surface impoundment - a CCR surface impoundment which is constructed by excavating entirely below the natural ground surface, holds an accumulation of CCR entirely below the adjacent natural ground surface, and does not consist of any constructed diked portion.

(31) Inflow design flood - the flood hydrograph that is used in the design or modification of the CCR surface impoundments and its appurtenant works.

(32) In operation - the same as active life.

(33) Karst terrain - an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the

result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, dolines, collapse shafts (sinkholes), sinking streams, caves, seeps, large springs, and blind valleys.

(34) Lateral expansion - a horizontal expansion of the waste boundaries of an existing CCR landfill or existing CCR surface impoundment made after October 19, 2015.

(35) Liquefaction factor of safety - the factor of safety (safety factor) determined using analysis under liquefaction conditions.

(36) Maximum horizontal acceleration in lithified earth material - the maximum expected horizontal acceleration at the ground surface as depicted on a seismic hazard map, with a 98% or greater probability that the acceleration will not be exceeded in 50 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(37) New CCR landfill - a CCR landfill or lateral expansion of a CCR landfill that first receives CCR or commences construction after October 19, 2015. A new CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 19, 2015. Overfills are also considered new CCR landfills.

(38) New CCR surface impoundment - a CCR surface impoundment or lateral expansion of an existing or new CCR surface impoundment that first receives CCR or commences construction after October 19, 2015. A new CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 19, 2015.

(39) Operator - the person(s) responsible for the overall operation of a CCR unit.

(40) Overfill - a new CCR landfill constructed over a closed CCR surface impoundment.

(41) Owner - the person(s) who owns a CCR unit or part of a CCR unit.

(42) Poor foundation conditions - those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of an existing or new CCR unit. For example, failure to maintain static and seismic factors of safety as required in 335-13-15-.04(4)(e) and 335-13-15-.04(5)(e) would cause a poor

foundation condition.

(43) Probable maximum flood - the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.

(44) Qualified person - a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit by visual observation and, if applicable, to monitor instrumentation.

(45) Qualified professional engineer - an individual who is licensed by the State of Alabama as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this chapter. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.

(46) Recognized and generally accepted good engineering practices - engineering maintenance or operation activities based on established codes, widely accepted standards, published technical reports, or a practice widely recommended throughout the industry. Such practices generally detail approved ways to perform specific engineering, inspection, or mechanical integrity activities.

(47) Retrofit - to remove all CCR and contaminated soils and sediments from the CCR surface impoundment, and to ensure the unit complies with the requirements in 335-13-15-.04(3).

(48) Run-off - any rainwater, leachate, or other liquid that drains over land from any part of a CCR landfill or lateral expansion of a CCR landfill.

(49) Run-on - any rainwater, leachate, or other liquid that drains over land onto any part of a CCR landfill or lateral expansion of a CCR landfill.

(50) Sand and gravel pit or quarry - an excavation for the extraction of aggregate, minerals or metals. The term sand and gravel pit and/or quarry does not include subsurface or surface coal mines.

(51) Seismic factor of safety - the factor of safety (safety factor) determined using analysis under earthquake conditions using the peak ground acceleration for a seismic event with a 2% probability of exceedance in 50 years, equivalent to a return period of approximately 2,500 years, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with this return period for the region where the CCR surface impoundment is located.

(52) Seismic impact zone - an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage

of the earth's gravitational pull (g), will exceed 0.10 g in 50 years.

(53) Slope protection - engineered or non-engineered measures installed on the upstream or downstream slope of the CCR surface impoundment to protect the slope against wave action or erosion, including but not limited to rock riprap, wooden pile, or concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.

(54) Solid waste management or management - the systematic administration of the activities which provide for the collection, source separation, storage, transportation, processing, treatment, or disposal of solid waste.

(55) Static factor of safety - the factor of safety (safety factor) determined using analysis under the long-term, maximum storage pool loading condition, the maximum surcharge pool loading condition, and under the end-of-construction loading condition.

(56) Structural components - liners, leachate collection and removal systems, final covers, run-on and run-off systems, inflow design flood control systems, and any other component used in the construction and operation of the CCR unit that is necessary to ensure the integrity of the unit and that the contents of the unit are not released into the environment.

(57) Unstable area - a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components of some or all of the CCR unit that are responsible for preventing releases from such unit. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

(58) Uppermost aquifer - the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary. Upper limit is measured at a point nearest to the natural ground surface to which the aquifer rises during the wet season.

(59) Waste boundary - a vertical surface located at the hydraulically downgradient limit of the CCR unit. The vertical surface extends down into the uppermost aquifer.

Author: Heather M. Jones.

Statutory Authority: Code of Alabama 1975, §§ 22-27-2, 22-27-3, 22-27-7, 22-27-9 and 22-27-12

History: XXXXXX, 2018.