

ENVIRONMENTAL QUALITY
Part VII. Solid Waste
Subpart 1. Solid Waste Regulations

Chapter 10. Coal Combustion Residuals (CCR) Waste Management

§1001. Applicability

A. Except as provided in LAC 33:VII.1001.B, this Chapter applies to:

1. owners and operators of new and existing coal combustion residuals (CCR) landfills and surface impoundments that dispose of or otherwise engage in solid waste management of CCR generated from the combustion of coal located at electric utilities and independent power producers;

2. owners and operators of new or existing CCR disposal units located off-site of electric utility or independent power producer facilities;

3. owners and operators of inactive CCR surface impoundments located at active electric utilities and independent power producers regardless of the fuel currently used to produce electricity at the facility;

4. a lateral expansion of a CCR landfill or surface impoundment; and

5. any CCR management practice that does not meet the definition of beneficial use of CCR in 40 CFR 257.53.

B. This Chapter does not apply to:

1. owners and operators of CCR landfills that ceased receiving CCR before October 19, 2015;

2. CCR surface impoundments that no longer contain water or can no longer impound liquids;

3. cooling water ponds, process water ponds, wastewater treatment ponds, stormwater holding ponds, or aeration ponds;

4. wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals;

5. fly ash, bottom ash, boiler slag, or flue gas desulfurization materials generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than 50 percent coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

6. beneficial use of CCR, as defined in 40 CFR 257.53;

7. CCR placement at active or abandoned, underground, or surface coal mines;

8. owners and operators of municipal solid waste landfills that receive CCR;

9. owners and operators of commercial industrial nonhazardous waste landfill (CINWL) facilities, authorized by an LDEQ state permit issued under LAC 33:VII.Chapters 5 and 7; or

10. the use of *mandatory modifications* as defined in LAC 33:VII.115.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1002. Definitions

A. Terms provided in 40 CFR 257.53 are adopted by reference as of July 1, 2022, with the exception of *Aquifer* and *Uppermost Aquifer*. In addition to the definitions referenced above, the definitions listed below will be utilized for this Chapter.

Act—the Louisiana Environmental Quality Act (R.S. 30:2001 et seq).

Aquifer—a continuous geologic formation, group of formations, or part of a formation that contains enough saturated permeable materials to yield usable quantities of water to wells or springs. For the purposes of these regulations, a *usable quantity of water* is enough water to yield a groundwater sample within 24 hours after purging a monitoring well.

Contamination (Environmental)—the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

Contamination (Solid Waste)—the admixture of any solid waste with any amount of hazardous waste or any other type of waste not meeting the definition of solid waste.

Department—the Louisiana Department of Environmental Quality as created by R.S. 30:2001 et seq.

Liner—layer or layer(s) of materials beneath and on the sides of a solid waste disposal facility that are designed to restrict the escape of wastes or their constituents from the facility.

Major Modification—any change in a site, facility, process or disposal method, or operation that substantially deviates from the permit or tends to substantially increase the impact of the site, facility, process or disposal method, or operation on the environment.

Minor Modification—any modification that does not meet the criteria for a major modification.

Modification—any change in a site, facility, unit, process or disposal method, or operation that deviates from the specifications in the permit. Routine or emergency maintenance that does not cause the facility to deviate from the specifications of the permit is not considered a modification.

Monitoring Well—any permanent cased hole that is drilled, augured, bored, cored, driven, washed, dug, jetted, or otherwise constructed to obtain hydrologic and water quality data, which is usually installed at or near a known or potential source of groundwater contamination to satisfy regulatory requirements for groundwater monitoring at the regulated units.

Permit—a written authorization issued by the administrative authority to a person for the construction, installation, modification, operation, closure or post-closure of a certain facility used or intended to be used to process or dispose of solid waste in accordance with the Act, these regulations, and specified terms and conditions.

Person—an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of the state, interstate body, or the federal government or any agency of the federal government.

Site—the physical location, including land area and appurtenances, of an existing or proposed storage, processing, or disposal facility. A site may consist of a number of facilities, each subject to a permit to process or dispose of solid waste.

Uppermost Aquifer—The geologic formation (excluding the vadose zone) nearest the natural ground surface that is an aquifer, as well as lower (deeper) geologic formations that are aquifers and are hydraulically connected within the facility's property boundary. An aquifer can yield usable quantities of groundwater and for the purposes of this regulation, an aquifer is defined as being capable of yielding a groundwater sample from a monitoring well within 24 hours without purging a monitoring well dry. The upper limit of the uppermost aquifer is measured at a point nearest to the natural ground surface to which the aquifer rises during the wet season.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1003. CCR Standards

A. The department hereby incorporates by reference 40 CFR Part 257, Subpart D, Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, July 1, 2022, except 40 CFR 257.50, 257.51, and all amendments made to the Federal regulations by the July 30, 2018 Final Rule (83 FR 36435), including the addition of 257.90(g).

B. Except as provided in LAC 33:VII.1001, facilities that manage or dispose of CCR generated from the combustion of coal at electric utilities or independent power producers in an existing landfill, or an existing or inactive surface impoundment, shall submit a permit application to the department for a new solid waste permit or a modification to an existing solid waste permit, as applicable, in accordance with LAC 33:VII.Chapter 5, within 365 days of the effective date of this regulation.

C. Except as provided in LAC 33:VII.1001, the disposal or management of CCR in a new or lateral expansion of a CCR landfill or surface impoundment is prohibited unless such activity is authorized by a permit issued in accordance with LAC 33:VII.509, 513, and 517.

D. The duration of any permit issued for the disposal or management of CCR shall be a maximum of 10 years, and shall comply with the requirements of LAC 33:VII.509.D.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1004. CCR Permit Requirements

A. Permitting Requirements

1. Any person who processes and/or disposes of CCR shall submit a timely permit application as required under this Chapter and shall operate in compliance with all terms and conditions of the effective permit.

2. All permit application contents listed in LAC 33:VII.519 and all permit conditions listed in LAC 33:VII.529 shall apply for each permit issued under this Chapter.

3. All permits issued to CCR facilities shall be issued with an effective period not to exceed 10 years, and may be issued for a period of less than 10 years in accordance with LAC 33:VII.509.D.2.

a. A renewal application shall be submitted no later than 365 days prior to expiration of the permit in accordance with LAC 33:VII.509.D.2.a, once a permit has been issued for a facility.

b. Submittal of a timely permit renewal application shall administratively extend the effectiveness of the terms and conditions of the current permit until final action is taken on the renewal application.

4. Each facility processing and/or disposing of CCR subject material to the permitting requirements of this Chapter shall operate under a permit for the active life of the facility and duration of post-closure care, until such time the department deems closure and post-closure complete and terminates permit coverage.

5. The owner or operator shall obtain a permit modification in accordance with LAC 33:VII.517 prior to making a change in a CCR unit, or initiating any change that is a deviation from the specifications in 40 CFR Part 257, subpart D and/or the existing permit.

6. The owner/operator of any permitted CCR facility shall submit an application for a permit modification to incorporate any changes necessary to ensure that coal ash units continue to maintain compliance with revised federal CCR standards.

7. All proposed changes in ownership shall comply with the provisions specified in LAC 33:I.Chapter 19.

B. Permit Application Requirements

1. Each CCR permit renewal application or permit modification application shall contain the information required by application forms and instructions prescribed by the department, including the substantive information required by this Section and 40 CFR part 257 subpart D.

2. A new permit application or permit renewal application under this Chapter shall include information in LAC 33:VII.519 and 709.A-D. All major permit modifications or minor permit modification applications under this Chapter shall be processed in accordance with LAC 33:VII.517.

3. All technical reports in an application shall be prepared and signed by a professional engineer licensed in the state of Louisiana.

4. All certifications and verifications executed by a licensed professional engineer in an application shall be accompanied by all material technical reports relied upon by the professional engineer licensed in the state of Louisiana for certification.

5. Maps shall be provided with the application. In addition, topographic, aerial, and facility layout maps shall be provided that visually describe surrounding features and facility layout and identify unit-related details.

6. The permit application shall include a verification that the design, construction, and operation of the CCR landfill, lateral expansion, or surface impoundment meet the requirements of 40 CFR 257.70-84.

7. Property owner information shall be provided in the application in accordance with LAC 33:VII.519.B.1.

8. Any fee required by LAC 33:VII.Chapter 15 shall be submitted with the permit application.

C. Geology

1. The application shall be prepared and signed in accordance with LAC 33:VII.801 and 803. It shall include a summary of the geologic conditions at the facility and the relation of the geologic units and aquifers to each CCR unit. In addition to the groundwater monitoring requirements of 40 CFR 257.90-98, the requirements of LAC 33:VII.805.A shall also apply.

2. Previously prepared documents shall be submitted by the permit applicant, unless otherwise instructed by the department, but shall be supplemented or updated, as necessary, to provide the requested information.

3. Sources and references for previously prepared documents for permit applications shall be provided.

D. An applicant shall submit documentation in the application demonstrating compliance with applicable land use and/or location restrictions, in accordance with 40 CFR 257.3-1-3-3 and 257.60-64.

E. Design Criteria

1. An applicant shall submit documentation in the permit application demonstrating compliance with applicable design criteria, in accordance with 40 CFR 257.70-74.

a. The liner system beneath a new landfill, or any lateral expansion of a landfill under 40 CFR 257.70(b), shall include a composite geomembrane liner at least 30-mil thick that shall be installed directly above and in uniform contact with a 3 foot recompacted clay liner having a hydraulic conductivity no greater than 1×10^{-7} cm/sec.

b. The liner system beneath a retrofitted or new surface impoundment shall meet the requirements of LAC 33:VII.1004.E.1.a and include a composite geomembrane liner at least 30-mil thick installed directly above and in uniform contact with a 3 foot recompacted clay liner having a hydraulic conductivity no greater than 1×10^{-7} cm/sec.

2. For new or lateral expansions of CCR landfill and surface impoundments, the owner or operator shall submit subsurface soil information. A sufficient number of borings shall be performed to establish the subsurface stratigraphy and determine geotechnical properties beneath the unit. The borings shall be to a sufficient depth to identify the uppermost aquifer and any underlying hydraulically interconnected aquifer. All borings shall be conducted in accordance with established field exploration methods. The subsurface soil information shall be prepared and included in the application and certified in accordance with 40 CFR Part 257 and LAC 33:VII.803.

The subsurface soil information shall include:

a. a lithological description of all borings drilled at the unit location to test soils and characterize groundwater;

b. a unit map drawn to scale showing the surveyed locations and elevations of the borings and monitoring wells;

c. cross-sections prepared from the borings and monitoring wells depicting the generalized strata beneath the unit;

d. boring logs for all soil boring and monitoring wells, including a description of materials encountered and any discontinuities such as fractures, fissures, slickensides, lenses, or seams;

e. a description of the geotechnical data and geotechnical properties of the subsurface soil materials, including the suitability of the soils and strata for the intended uses;
and,

f. a demonstration that all geotechnical tests were performed in accordance with industry practice and recognized procedures.

F. The applicant shall submit documentation in the permit application demonstrating compliance with Chapter 10 and 40 CFR Part 257, subpart D, including submittal of the most recent annual inspection report prepared pursuant to 40 CFR 257.83 (b)(2) and 257.84 (b)(2), certified by a professional engineer in the state of Louisiana.

G. Groundwater Monitoring Zone and Unit Siting

1. Facilities shall monitor the groundwater quality of the entirety of the *uppermost aquifer*, as defined in LAC 33:VII.1002.A, beneath the permitted unit on a semiannual basis.

a. Monitoring wells shall be installed at the facility in accordance with 40 CFR 257.91, and shall be completed and/or plugged and abandoned in accordance with LAC 33:VII.805.A.3-6.

b. A sufficient number of wells shall be installed in the uppermost aquifer, to ensure the entirety of the zone is monitored. Depending on the thickness of the aquifer,

monitoring wells may be required to be installed at the top of aquifer, middle of the aquifer, and/or bottom of the aquifer of use of well screens that encompass the length of the aquifer may be utilized, as long as well screen do not exceed 10 feet in length.

c. The geology beneath the permitted unit shall be characterized as well as the aquifer(s) beneath the permitted unit.

2. If there are statistically significant increases (SSIs) above background concentrations while in detection monitoring, or if there are statistically significant levels (SSLs) above groundwater protection standards while in assessment monitoring, the department may require the installation of additional monitoring wells in the next (deeper) aquifer(s). Additionally, vertical and horizontal delineation of the aquifer(s) shall be required.

a. If there are SSIs or SSLs then monitoring of the uppermost aquifer shall continue.

b. If there are SSIs or SSLs in any portion of the uppermost aquifer zone, monitoring wells shall be installed into the next (deeper) aquifer to ensure groundwater quality beneath the permitted unit.

c. If there are SSIs or SSLs in the aquifer beneath the uppermost aquifer, monitoring wells shall be installed in the next aquifer to determine and monitor groundwater quality beneath the permitted unit.

3. The facility shall monitor all aquifers with groundwater wells on a semiannual basis and address any contamination identified during the investigation/delineation conducted in accordance with Paragraph G.2 of this Section.

4. The base of the CCR unit (surface impoundments, new landfills, or lateral expansions of landfill) shall be at least 5 feet above the uppermost aquifer that is being monitored.

H. Groundwater Monitoring and Corrective Action Information in Permit Applications

1. An applicant shall submit or reference the following information in the permit application:

a. a description and details of the groundwater monitoring system that demonstrates compliance with the requirements of this Chapter; and

b. a description and details of the groundwater sampling and analysis program that demonstrates compliance with the requirements of this Chapter.

2. Detection Monitoring

a. The owner or operator shall submit sufficient information, such as supporting data, analyses, and where applicable, the most recent alternate source demonstration to support a detection monitoring program that meets the requirements of LAC 33:VII.1003.A.

b. In addition to the requirements of LAC 33:VII.1003.A, facilities shall comply with the notification requirements of LAC 33:VII.805.C.6.a.i and ii.

3. Assessment Monitoring

a. If any Appendix III constituents in 40 CFR Part 257 have been detected in the groundwater at SSIs above background concentrations, and no alternate source demonstration has been made before issuance of a permit modification required by LAC 33:VII.1003.B, the owner or operator to support an assessment monitoring program that meets the requirements of this Chapter shall submit:

i. sufficient information;

ii. supporting data; and

iii. analyses.

b. A facility may remain in detection monitoring if an alternate source demonstration is submitted for the SSIs and approved by the department within 90 days of detection of SSIs.

c. If an alternate source demonstration is still under review or additional investigation is ongoing 90 days after the detection of SSIs, the facility shall initiate the assessment monitoring requirements.

d. If the alternate source demonstration is denied, the facility shall initiate the assessment monitoring requirements.

e. In addition to the requirements of this Chapter, when a facility initiates assessment monitoring requirements, the facility shall submit an assessment work plan to the department in accordance with LAC 33:VII.805.D.6.

4. Corrective Action

a. If any Appendix IV constituents in 40 CFR Part 257 have been detected in the groundwater at SSLs above groundwater protection standards, the owner or operator shall submit:

i. sufficient information;

ii. supporting data; and

iii. analyses to establish a corrective action program that meets the requirements of this Chapter and 40 CFR 257.96-98.

b. A facility may remain in assessment monitoring if an alternate source demonstration for the SSLs is submitted and approved by the department within 90 days of identification of the SSLs.

c. If an alternate source demonstration is still under review or additional investigation is ongoing 90 days after the detection of SSLs, the facility shall initiate the corrective action monitoring requirements.

d. If the alternate source demonstration is denied, the facility shall initiate the corrective action requirements.

e. In addition to the requirements of this Chapter, when a facility initiates corrective action requirements, the facility shall submit a plan to the department in accordance with LAC 33:VII.805.D.7.

I. Groundwater Monitoring Parameters

1. A facility shall collect semiannual samples for the parameters set forth in 40 CFR Part 257, Appendix III for detection monitoring.

2. A facility in assessment monitoring shall collect semiannual samples for all the parameters set forth in 40 CFR 257.95(b), Appendix III, and at a minimum, those parameters detected during the 40 CFR Part 257, Appendix IV sampling event. Sampling for all Appendix IV parameters shall occur annually. The results of the semiannual sampling events are to be placed into the facility's operating record.

3. In addition to monitoring the parameters in Paragraphs I.1 and 2 of this Section, the facility shall also monitor groundwater for parameters that provide a reliable indication of the presence of CCR contaminants in the groundwater. The facility shall follow LAC 33:VII.805.C.7.a.i-iv to determine the additional monitoring parameters.

J. Closure and Post-Closure Care Permit Application Information

1. The applicant shall submit documentation in the permit application demonstrating compliance with 40 CFR 257.100–104.

2. Submit closure and post-closure care cost estimate(s) required by LAC 33:VII.Chapter 13.

K. In addition to the requirements of 40 CFR 257.105, the owner or operator shall keep records throughout the term of the permit. These records include applications, notifications, and reports required by this Chapter and 40 CFR 257.105, data, and supplemental information used to complete applications and reports required by this Chapter.

L. Documents that have already been submitted to the department for review and approval or posted on the publicly accessible website prior to the effective date of LAC 33:VII.Chapter 10 shall be submitted to the department upon request.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1005. Semiannual Groundwater Monitoring Reports

A. The owner or operator shall submit semiannual groundwater monitoring reports to the department in the format specified by LAC 33:VII.805.C.5.a within 90 days of initiation of the semiannual sampling and analysis events, in addition to the annual groundwater monitoring and corrective action report required, as set forth in 40 CFR 257.90(e). The annual, semiannual, and corrective action groundwater monitoring reports shall comply with the requirements of 40 CFR 257.90(e) and LAC 33:VII.805.C.5.a.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1006. Public Notice and Public Hearing Procedures

A. Public Notice

1. Applicability. This Section applies to permit applications for initial permits, permit renewals, and major modifications of CCR landfills and surface impoundments, which are subject to the requirements of this Chapter. The public notice and public comments requirements in LAC 33:VII.513.B.7 and 8 shall apply to permit applications for initial and renewal permits for CCR landfills and surface impoundments subject to the provisions of this Chapter, as well as major modification and final permit decisions issued pursuant to LAC 33:VII.Chapter 10, except as otherwise provided in this Section.

2. Pre-Application Public Notice

a. Prior to the submittal of a permit application, the applicant shall publish a public notice of intent to submit a permit application within 45 days prior to submission of the application in accordance with LAC 33:VII.513.B.7.

b. Proof of publication shall be posted on the facility's public CCR website.

3. Post-Application Public Notice

a. After submittal of the permit application to the Louisiana Department of Environmental Quality, Office of Environmental Services, the applicant shall publish a public notice of submission within 45 days after submittal of the application in accordance with LAC 33:VII.513.B.8.

b. Proof of publication shall be posted on the facility's public CCR website.

4. Draft Permit Decision

a. Once an application is deemed technically complete and a draft permit has been prepared, the draft permit shall be submitted for public notice in accordance with

LAC 33:VII.513.G and notification of public notices shall be published on the facility's public CCR website.

b. The draft permit shall be sent to the local public library in the parish where the facility is located, LDEQ regional offices, and/or governing authority for public review.

c. The draft permit shall be made available for public review in the department's electronic document management system.

d. The public comment period will be a minimum of 30 days for permit applications and major modifications.

e. The department will review and consider all public comments received during the public comment period prior to making a final decision on a permit.

5. Final Permit Decision

a. After the public notice period has ended, the department will issue a final decision on the permit in accordance with LAC 33:VII.513.H.

b. No later than 20 days following the issuance of a final permit decision for a standard permit, the department shall publish a notice of final permit decision, in accordance with LAC 33:VII.513.I, on the department's website.

c. The notice will be sent to those persons who commented on the draft permit decision or those who have requested to be provided written notice.

B. Public Hearing

1. Applicability. Any public hearings held by the administrative authority will be conducted in accordance with LAC 33:VII.509.E. A public hearing shall be held for any CCR facility permit if the administrative authority determines, on the basis of comments received and/or other information, that a hearing is necessary or appropriate.

2. The proceedings of all public hearings conducted pursuant to this Section shall be recorded and a copy of the recording, or a verbatim transcript recording, shall be filed in the record of the hearing.

3. The department retains the discretion to hold a public hearing on any permit application that does not require a public hearing.

4. Public notices of public hearings will be published in accordance with LAC 33:VII.509.E.6

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1007. Financial Assurance

A. Financial assurance for CCR units shall be established and maintained for the duration of the active life of the facility, post-closure care period, and any corrective action for known releases when needed in accordance with LAC 33:VII.519.B.8.c.

B. The financial assurance requirements in LAC 33:VII.1303 and 1399 shall apply to CCR units.

C. The financial assurance shall be submitted to the department within 60 days of approval of permit modification or permit application.

D. Updated financial assurance shall be submitted to the department within 60 days of any changes to the cost estimate.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 49:

§1008. Enforcement

A. The failure of any person to comply with this Chapter or the terms and conditions of any permit granted or order issued thereunder shall constitute a violation of the Act.

B. CCR units are subject to LAC 33:VII.Chapter 9, if a violation of the Act occurs.

C. Investigation shall be undertaken to determine:

1. whether a violation has occurred or is about to occur;

2. the scope and nature of the violation; and

3. the persons or parties involved.

D. The results of an investigation may be given to any complainant who provided the information prompting the investigation, upon written request and, if advisable, to the person under investigation, if the identity of such person is known.

E. When the administrative authority determines that a violation of the Act or these Chapter 10 regulations or the terms and conditions of any permit issued hereunder has occurred or is about to occur, he shall initiate one or more of the actions set forth in R.S. 30:2025, or as otherwise provided by appropriate rules.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001et seq.

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