

PROPOSED AMENDMENTS TO THE RULES
OF GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION RELATING TO
SOLID WASTE MANAGEMENT, CHAPTER 391-3-4

The Rules of the Department of Natural Resources, Chapter 391-3-4, Rules for Solid Waste Management, are hereby amended and revised for specific Rules, or such subdivisions thereof as may be indicated.

[Note: Underlined text is proposed to be added. Lined-through text is proposed for deletion.]

Rule 391-3-4.10 Coal Combustion Residuals.

(1) Applicability.

(a) This Rule applies to the following:

1. Owners and operators of new and existing landfills and surface impoundments, including any lateral expansions of such units that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. Unless otherwise provided in this Rule, these requirements also apply to disposal units located off-site of the electric utility or independent power producer.
2. All CCR units.
3. Any practice that does not meet the definition of a beneficial use of CCR.

(b) This Rule does not apply to the following:

1. 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.
2. Fly ash, bottom ash, boiler slag, and 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 fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.
3. CCR placement at active or abandoned underground or surface coal mines.
4. Municipal Solid Waste Landfills and Commercial Industrial Landfills that receive CCR.

(c) Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments 40 CFR 257.60 through 257.107, (80 Fed. Reg. 21468 (April 17, 2015); as amended at 80 Fed. Reg. 37988 (July 2, 2015), ~~and~~ 81 Fed. Reg. 51807 (August 5, 2016), 83 Fed. Reg. 36451 (July 30, 2018), and 85 Fed. Reg. 53561 (August 28, 2020), are hereby

incorporated.

(d) Any reference to 40 C.F.R. Parts in any provisions adopted by reference shall be construed to refer to the provisions contained in the following sections of these Rules:

Federal Regulation Reference Georgia Rule Reference

40 C.F.R. Part 257.53 391-3-4-.10(2)
 40 C.F.R. Parts 257.60 – 257.64 391-3-4-.10(3)
 40 C.F.R. Parts 257.70 – 257.74 391-3-4-.10(4)
 40 C.F.R. Parts 257.80 – 257.84 391-3-4-.10(5)
 40 C.F.R. Parts 257.90 – 257.98 391-3-4-.10(6)
 40 C.F.R. Parts 257.100 – 257.104 391-3-4-.10(7)
 40 C.F.R. Parts 257.105 - 107 391-3-4-.10(8)

(2) Definitions.

(a) Definitions in 40 CFR 257.53 are incorporated by reference into this section and are applicable to CCR units with the following additions and revision:

1. “Dewatered Surface Impoundment” means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and does not contain liquids on or after October 19, 2015.
2. “NPDES -CCR Surface Impoundment” means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 which still contains both CCR and liquids and is located at an electric utility or independent power producer that has ceased producing electricity prior to October 19, 2015.
3. “Inactive CCR Landfill” means a CCR landfill that no longer receives CCR and other wastes on or after October 19, 2015.
4. The following text shall be substituted for the fourth condition in the definition of Beneficial use of CCR “(4) For unencapsulated use of CCR, the user must demonstrate to the Division and provide documentation to the Division 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.”

(3) Location Restrictions.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must meet the location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, and 40 CFR 257.63.

(b) Existing or new CCR landfills, existing or new CCR surface impoundments, or lateral

expansions of a CCR unit must meet the location restrictions in 40 CFR 257.64.

(c) For new and lateral expansions of CCR units, the hydrogeological evaluation for a specific site must be performed by a qualified groundwater scientist.

(d) For new and lateral expansions of CCR units, when the geological and hydrogeological data so indicate, the Division may specify greater separation distances to protect groundwater.

(e) Buffers: New CCR units and lateral expansions of CCR units must provide a 200-foot undisturbed buffer between the waste disposal boundary and the boundary of the permitted facility and a minimum 500-foot buffer between the waste disposal boundary and any occupied dwelling and the dwelling's operational private, domestic water supply well in existence on the date of the permit application. The 500-foot buffer may be reduced if the current owner of the dwelling provides a written waiver consenting to the waste disposal boundary being closer than 500 feet. No disposal or storage practices for waste shall take place in the buffer zones.

(4) Design Criteria.

(a) New CCR landfills and lateral expansions of CCR landfills shall be designed in accordance with 40 CFR 257.70.

(b) Existing CCR surface impoundments shall comply with liner design criteria in 40 CFR 257.71 and the structural integrity criteria in 40 CFR 247.73.

(c) New CCR surface impoundments and lateral expansions of CCR surface impoundments shall be designed and comply with requirements in 40 CFR 257.72 and 40 CFR 257.74.

(5) Operating Criteria.

(a) CCR landfills shall be operated in accordance with the criteria in 40 CFR 257.80, 40 CFR 257.81, and 40 CFR 257.84.

(b) CCR surface impoundments shall be operated in accordance with the criteria in 40 CFR 257.80, 40 CFR 257.82, and 40 CFR 257.83.

(c) The operation and use of the CCR unit shall be as stipulated in the solid waste handling permit.

(6) Groundwater Monitoring and Corrective Action.

(a) CCR units are subject to the groundwater monitoring and corrective action requirements in 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98.

(b) When referenced in this Rule, Appendix III and Appendix IV constituents shall refer to those constituents as listed in Appendix III and IV of 40 CFR Part 257, Subpart D, 80 FR 21468, (Apr. 17, 2015), which are hereby incorporated by reference.

(c) The owner or operator of a CCR unit must submit a semi-annual report to the Division to coincide with the semi-annual sampling event. A qualified groundwater scientist must certify the report.

(d) The Division must provide concurrence with the following actions in order for them to be complete:

1. Groundwater monitoring system design
2. Groundwater sampling and analysis plan
3. Groundwater monitoring well installation
4. Alternate source demonstration
5. Selection of remedy
6. Completion of remedy

(e) The Director may require the analysis of additional parameters based on waste descriptions.

(f) An owner or operator of a CCR unit shall continue to monitor for Appendix I or II constituents if these constituents have previously been detected at statistically significant levels above background concentrations.

(g) Monitoring wells require replacement after two dry sampling events, unless an alternate schedule has been approved by the Division. A minor modification shall be submitted in accordance with ~~subparagraph (4)(b)7~~ of Rule 391-3-4-.02 prior to the installation or decommissioning of monitoring wells. Well installation must be directed by a qualified groundwater scientist.

(7) Closure and Post-Closure Care.

(a) Inactive surface impoundments are subject to the requirements in 40 CFR 257.100.

1. The following additional requirements apply to inactive surface impoundments:

- (i) Permitting requirements in Rule 391-3-4-.10(9)
- (ii) Groundwater monitoring and corrective action requirements in Rule 391-3-4-.10(6)

2. CCR surface impoundments that complete closure through removal of CCR are subject only to the requirements in subparagraph (9)(c)6(v)(I) of Rule 391-3-4-.10.

(b) Closure or retrofit of existing, new, and lateral expansions of CCR units shall be conducted in

accordance with 40 CFR 257.101, 40 CFR 257.102, and 40 CFR 257.103.

(c) The owner or operator must close the CCR unit in accordance with the written closure plan.

(d) A notice of intent to close must be provided to the Director after receipt of the final load of waste.

(e) Upon completion of closure activities, a professional engineer registered in Georgia shall prepare and submit a closure report to the Director. The closure report must be completed on forms provided by the Division. If the Director concurs with the closure report, closure will be deemed complete and the facility may begin the post-closure care period.

(f) Concurrent with the submission of this closure report to the Director, the owner or operator must submit confirmation to the Director that a notation on the property deed has been recorded. This recording must in perpetuity notify any potential purchaser of the property that the land has been used as a CCR unit and that its use is restricted under the post closure care requirements of this Rule. This requirement does not apply to CCR units closed by removal.

(g) Post-Closure care for existing, new, and lateral expansions of CCR units shall be conducted in accordance with 40 CFR 257.104 with the following ~~exception and~~ additions:

~~1. An owner or operator of an inactive surface impoundment that elects to close a CCR unit pursuant to the requirements under 40 CFR 257.100(b) is subject to the post-closure care criteria in 40 CFR 257.104.~~

12. CCR units must comply with the conditions of the solid waste handling permit.

23. The release of CCR units from post-closure care must be approved by the Division.

(8) Recordkeeping, Notification, and Posting of Information to the Internet.

(a) The requirements of 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107 are incorporated by reference with the following addition:

1. Electronic mail sent to a designated EPD recipient is an authorized form of notification when approved by EPD.

(9) Permits.

(a) CCR Permit Applications: After the effective date of this Rule, owners and operators of all CCR units are required to submit to the director a permit application that meets the requirements of this Rule. Separate permits are required for each CCR unit.

1. Owners and operators of new CCR units are required to submit to the director a complete permit application prior to the initial receipt of CCR.

2. Owners and operators of ~~all~~ existing and inactive CCR units shall submit a complete permit application no later than two years from the effective date of the Rule.

(b) All CCR unit permit applications must include the following:

1. A completed form designated by EPD.
2. Written verification that the site conforms to all local zoning or land use ordinances.
3. Property boundary survey and legal description.
4. Financial assurance mechanism meeting the criteria in Rule 391-3-4-.13.
5. A qualified professional engineer's certification that all application requirements have been met.

(c) Additional permit application requirements for CCR Units by Facility Type:

1. New CCR landfills or lateral expansion of CCR landfills

(i) Technical data and report to comply with location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.

(ii) Siting report that meets the criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14, Appendix A. The report shall be prepared by a qualified groundwater scientist.

(iii) Plan and profile sheets of the disposal area. The plan and profile sheets shall include topographical maps at contour intervals of not more than five feet for the existing ground surface elevations, initial disposal area elevations, final disposal area elevations, and buffers.

(iv) Design of a liner and leachate collection system as required by 40 CFR 257.70.

(v) Quality assurance/quality control (QA/QC) plan for the construction of the liner system, leachate collection system, and the final cover system.

(vi) An operation plan that includes at a minimum:

(I) A fugitive dust plan in compliance with 40 CFR 257.80.

(II) A run-on and run-off control plan in compliance with 40 CFR 257.81.

(III) Inspection requirements in compliance with 40 CFR 257.84.

(IV) Identification of any uniquely associated wastes as listed in 40 CFR 261.4(b)(4), the estimated quantities generated by the facility, and a description of how these wastes will be

managed.

(V) Procedures for compliance with recordkeeping, notification, and posting of information to the internet as required by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.

(VI) Procedures for updating all plans and assessments periodically as required by 40 CFR Part 257.

(vii) A groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(viii) A closure and post-closure plan in accordance with Rule 391-3-4.10(7).

(ix) Any additional information that may be required by the Division.

2. New Surface Impoundments or lateral expansions of surface impoundments

(i) Technical data and report to comply with location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.

(ii) Siting report that meets the criteria specified in “Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia”, Circular 14, Appendix A. The report shall be prepared by a qualified groundwater scientist.

(iii) Technical report for the hazardous potential classifications as outlined in 40 CFR 257.74 and the emergency action plan if required by 40 CFR 257.74.

(iv) For a new CCR surface impoundment that has a height of five feet or more and a storage volume of 20 acre-feet or more, or a surface impoundment with a height of 20 feet or more, the application shall include the following:

(I) Design and construction plan requirements in 40 CFR 257.74.

(II) Structural stability assessment as required by 40 CFR 257.74.

(III) Safety factor assessment as required by 40 CFR 257.74.

(v) Design of a liner system as required by 40 CFR 257.72.

(vi) Quality assurance/quality control (QA/QC) plan for the construction of the liner system, leachate collection system, and the final cover system.

(vii) An operation plan that includes at a minimum:

(I) A fugitive dust plan in compliance with 40 CFR 257.80.

- (II) An inflow design flood control system in compliance with 40 CFR 257.82.
- (III) Inspection requirements in compliance with 40 CFR 257.83.
- (IV) Identification of any uniquely associated wastes as listed in 40 CFR 261.4(b)(4), the estimated quantities generated by the facility, and a description of how these wastes will be managed.
- (V) Procedures for compliance with recordkeeping, notification, and posting of information to the internet as required by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.
- (VI) Procedures for updating all plans and assessments periodically as required by 40 CFR Part 257.
- (viii) A groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).
- (ix) A closure and post-closure plan in accordance with Rule 391-3-4-.10(7).
- (x) Any additional information that may be required by the Division.

3. Existing CCR landfills

- (i) Location restriction demonstration requirements in 40 CFR 257.64.
- (ii) Description of how the CCR landfill's operating criteria requirements in 40 CFR 257.80, 40 CFR 257.81, and 40 CFR 257.84 are met.
- (iii) Groundwater monitoring plan in accordance with 391-3-4-.10(6). Explanation of how groundwater monitoring and corrective action criteria requirements in 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98 are met.
- (iv) Explanation of how closure and post-closure care requirements in 40 CFR 257.101, 40 CFR 257.102, 40 CFR 257.103, and 40 CFR 257.104 will be met.
- (v) Website address for information required to be posted by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.

4. Inactive CCR landfills must meet requirements subparagraphs (9)(c)3.(i) – (iv) of this Rule for an existing CCR landfill.

5. Existing Surface Impoundments

- (i) Location restriction demonstrations required by 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.

(ii) Description of the CCR surface impoundment's design criteria required by 40 CFR 257.71 and 40 CFR 257.73.

(iii) Description of how the CCR surface impoundment's operating criteria required by 40 CFR 257.80, 40 CFR 257.82, and 40 CFR 257.83 are met.

(iv) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6). Explanation of how groundwater monitoring and corrective action criteria required by 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98 are met.

(v) Explanation of how closure and post-closure care requirements found in 40 CFR 257.101, 40 CFR.257.102, 40 CFR 257.103, and 40 CFR 257.104 will be met.

(vi) Website address for information required to be posted by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.

6. Inactive Surface Impoundments. An owner or operator of an inactive surface impoundment shall complete closure of the CCR unit as specified in 40 CFR 257.100 ~~no later than April 17, 2018 or submit a permit application for an existing CCR surface impoundment~~, including:

(i) Technical data and report showing compliance with 40 CFR 257.100.

(ii) Technical report of geological and hydrogeological units within the disposal site.

(iii) Potentiometric surface map of the water table.

(iv) Siting report which includes identification of wetlands, floodplains, and seismic impact zones.

(v) Written closure plan that includes at a minimum:

(I) Narrative describing how the CCR unit will be closed including the elimination of free liquids and stabilization of remaining waste or by closure through removal of CCR.

(II) Identification of any pipes, utilities, or other penetrations through or beneath the impoundment. The inspection frequency and method of evaluation should be provided.

(II) Final cover analysis.

(vi) Stability analysis that, at a minimum, includes the following:

(I) On-site or local soil conditions that may result in significant differential settling.

(II) On-site or local geologic or geomorphologic features.

(III) On-site or local human-made features or events, both surface and subsurface.

(vii) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(viii) Closure through removal of CCR is subject only to (v)(I) above and is not subject to the financial assurance requirements of Rule 391-3-4-.13.

7. NPDES – CCR Surface Impoundments

(i) Technical report of geological and hydrogeological units within the disposal site.

(ii) Potentiometric surface map of the water table.

(iii) Siting report which includes identification of wetlands, floodplains, and seismic impact zones.

(iv) Closure plan that includes at a minimum:

(I) Narrative describing how the CCR unit will be closed including the elimination of free liquids and stabilization of remaining waste or by closure through removal of CCR.

(II) Identification of any pipes, utilities, or other penetrations through or beneath the impoundment. The inspection frequency and method of evaluation should be provided.

(III) Final cover analysis.

(v) Stability analysis that at a minimum includes the following:

(I) On-site or local soil conditions that may result in significant differential settling.

(II) On-site or local geologic or geomorphologic features.

(III) On-site or local human-made features or events, both surface and subsurface.

(vi) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(vii) Closure through removal of CCR is subject only to (iv)(I) above and is not subject to the financial assurance requirements of Rule 391-3-4-.13.

8. Dewatered Surface Impoundments

(i) Demonstration that closure procedures have minimized the threat to human health and the environment.

(ii) Stability analysis.

(iii) Final cover analysis.

(iv) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(10) Financial Assurance.

(a) All CCR units must meet requirements in Rule 391-3-4-.13.

(11) Variances.

(a) A compliance schedule variance for dewatered surface impoundments and inactive CCR landfills not meeting the minimum criteria in 391-3-4-.10 may be considered upon the following:

1. A demonstration that no alternative units meeting the minimum requirement either on- site or off-site can be used to dispose of the CCR or non-CCR wastewater;
2. A demonstration that the owner or operator is unable to use other public or private alternatives to manage the waste in the non-compliant unit; and
3. The schedule of compliance must specify remedial measures and an enforceable sequence of actions or operations leading to compliance within a reasonable time not to exceed time frames as specified in 40 CFR 257.102.

4. Variances may be granted under Rule 391-3-4-.10 which are not less stringent than those found in 40 CFR 257.60 through 257.107.

Authority: O.C.G.A. § Secs. 12-8-20 et seq., as amended.