

POST-CLOSURE PLAN

PLANT MCINTOSH EXISTING COAL COMBUSTION RESIDUALS (CCR) LANDFILL NO. 4 EFFINGHAM COUNTY, GEORGIA

FOR



Georgia Power

September 2022



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Approved
Solid Waste Management Program

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1. POST-CLOSURE PLAN

The following Post-Closure Plan includes a narrative of the proposed post-closure use of the property, a description of routine maintenance activities, a description of monitoring and inspections, and a description of the recordkeeping requirements. In addition, the Post-Closure Plan also includes an estimate of the average annual cost for post-closure care of the site.

This Post-Closure Plan fulfills the requirements of Rule 391-3-4-.10(7) for Landfill No. 4 as an Existing CCR Landfill in accordance with Rules 391-3-4-.10(9)(c)3. Georgia Power Company (Georgia Power) filed an Initial Post-Closure Plan for McIntosh Landfill No. 4 to the Georgia Power CCR Compliance Website on October 17, 2017.

1.1 Amendments to the Post-Closure Care Plan

Georgia Power may amend the initial or any subsequent plan at any time. Georgia Power must amend whenever there is a change in the operation of the unit that would substantially affect the written post-closure plan, or after post-closure care activities have commenced unanticipated events necessitate a revision of the written plan. The Post-Closure Plan must be amended at least 60 days prior to a planned change in operation of the facility, and no later than 60 days following an unanticipated event, or 30 days following a trigger event. Post-Closure Plan Amendments will be certified by a Georgia Professional Engineer.

1.2 Post Closure Care Period

Post-closure care is required for a period of 30 years and must consist of at least the following:

1. Maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover system as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover; and
2. Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of Rule 391-3-4-.10(6).

If under assessment monitoring at the end of the post-closure care period, Georgia Power will continue to conduct post-closure care until the site returns to detection monitoring. The release from the post-closure care requirements in this plan must be approved by the Director of the Georgia EPD.

1.3 Post-Closure Use of the Property

The post-closure use of Landfill No. 4 will be for green space. Prior to any other future use, Georgia EPD approval will be obtained by Georgia Power. Georgia Power is responsible for continuing the post-closure care of the property for the 30-year post-closure care period, which will begin upon issuance of the closure certification by the Georgia EPD.

1.4 Final Cover System Maintenance

Georgia Power will maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover, as necessary. Erosion repairs to the vegetation, topsoil, and protective soil layers

are typical for maintenance of final cover systems. Erosion repairs will be made as soon as feasible to prevent damage to the final cover. Any repairs to the liner shall be documented and certified by a professional engineer and placed in the facility Operating Record.

Any identified areas that require repair will be reseeded immediately after any repairs are completed. Areas which are slow to establish vegetation shall receive additional temporary seeding. The operator may submit soil samples to the County Extension Agent for analysis and determination of proper soil conditioners including lime. Planting dates, fertilizer rates, and seeding rates shall meet the requirements in the *Manual for Erosion and Sediment Control in Georgia*.

The erosion control measures shall remain in place until a satisfactory stand of grass is growing. A satisfactory stand of grass is defined as a full cover: 100 percent of the soil surface is uniformly covered in permanent vegetation with a density of 70 percent or greater.

1.5 Environmental Monitoring

Georgia Power Company will monitor groundwater semi-annually pursuant to the requirements defined in the Groundwater Monitoring Plan included in the permit. Georgia Power Company proposes to monitor groundwater for a period of at least thirty (30) years following closure of the landfill to confirm that groundwater constituent concentrations are not detected at statistically significant levels above the groundwater protection standards established in State CCR Rule 391- 3-4-.10(6)(b), which references 40 CFR 257.104. If at the end of the 30-year post-closure care period the facility is operating under assessment monitoring in accordance with Georgia Rule 391-3-4-.10(6) and 40 CFR 257.95, the owner or operator must continue to conduct post-closure care until the facility returns to detection monitoring. Following the post-closure care period, a qualified groundwater scientist will certify that the site is in Detection Monitoring prior to release from post-closure care. The certification statement will be submitted to EPD for review and concurrence and will include the following language: "I am a qualified groundwater scientist and I hereby certify that the groundwater monitoring program at the CCR landfill is operating under detection monitoring in accordance with 257.94 and Georgia Rules for Solid Waste rule 391-3-4-.10 and monitoring requirements for post-closure care have been met."

1.6 Notification of Monitoring Standards Exceeded

Georgia Power will be responsible for conducting all monitoring activities. If at any time the monitoring results indicate an exceedance of established standards or indicate a threat to human health or the environment, Georgia Power shall notify the Georgia EPD and comply with all requirements of Georgia Rule 391-3-4-.10(6).

1.7 Leachate Collection and Treatment

The leachate collection system shall be maintained and shall collect leachate for a minimum of 30 years or until leachate does not provide a potential for impact or is no longer generated. These systems shall be maintained in good working order throughout the post-closure care period. Leachate, collected during the post-closure care period, shall be properly treated in a wastewater treatment plant prior to discharge.

1.8 Routine Inspections

Throughout the post-closure care period, the site will be inspected on an annual basis to identify any maintenance or repairs needed to ensure that all CCR disposed of in the facility remains properly covered. The inspection will focus on the ditches, storm water diversion berms, let down pipes, rock lined flume, and sedimentation ponds, and check the entirety of the final cover. Repairs to the final cover system will

be made as necessary to maintain the integrity and effectiveness of the final cover system. The repairs shall meet or exceed the original construction requirements. Areas noted to have less than the required cover from the effects of erosion, vehicular traffic, settlement, subsidence, or other events will be repaired as soon as practical. All areas lacking proper vegetation will be grassed and maintained according to the vegetation and fertilization plans.

The storm water management system will be maintained in proper working condition in accordance with the permit application to prevent run-on and runoff from eroding or otherwise damaging the final cover. Repairs or maintenance to deficiencies identified during the annual inspection shall be completed as soon as practical.

1.9 Stormwater Management System Maintenance

Throughout the post-closure care period, the storm water management system, including all ditches, diversion berms, culverts, riprap, and other drainage structures will be maintained according to the Engineering Report and Design and Operations Drawings. Sediment ponds shall be cleaned upon the accumulation of the designed depth of sediment within the pond. Erosion control structures shall be maintained to prevent damage to the final cover. All permanent ditches, pipes, culverts, silt fences, sedimentation ponds, and other permanent drainage structures shall be inspected and maintained. Erosion control structures shall be maintained to prevent damage to the final cover. Maintenance activities will include clean-out erosion control structures, including the sedimentation pond, on an as needed basis.

1.10 Limited Access

The site is entirely on Georgia Power property. Access to the site is controlled by fencing, gates, buffers, etc. Access will be limited to authorized personnel and to those time periods when the site is undergoing maintenance or inspection activities.

1.11 Supervision

The post-closure care of the site will be the responsibility of the Manager of Environmental Affairs. The contact information is:

Facility Contact:	Manager Environmental Affairs Georgia Power Company
Address:	241 Ralph McGill Boulevard Atlanta, Georgia 30308
Telephone Number:	(404) 506-6505

1.12 Site Equipment

Georgia Power will make available necessary equipment to ensure that post-closure care requirements are executed correctly and efficiently. Dedicated landfill or rental equipment shall be used as necessary. The equipment required will depend on the type and extent of the necessary repair.

1.13 Removal of CCR for Beneficial Use

Georgia Power will request and receive written approval from Georgia EPD prior to conducting any activities to remove CCR from the landfill for beneficial use.

1.14 Post-Closure Care Cost Estimate

In compliance with applicable securities laws and regulations, GPC will provide cost estimates for post closure to GA EPD under separate cover. The post closure costs will include all items necessary for a third-party to complete the project in accordance with the Post Closure Plan. The post closure cost estimate will be generated in current dollars. The cost estimate will be adjusted annually for inflation. GPC will provide a demonstration of financial assurance upon approval of the post-closure care cost estimates by GA EPD.

McIntosh #4 1, 2A, 2B, 3, 4 Landfill Post-Closure Cost Estimate

Item Description	Quantity	Unit	Unit Cost	Cost
Post Closure Cost				
Maintenance - Grass/Turf ¹				
Dike, Road, and Maintenance				
Water Treatment				
Environmental Monitoring				
Groundwater Monitoring & Reporting ²				
Sampling				
Reporting				
Laboratory Analysis				
Groundwater Well Maintenance and Abandonment				
Well Maintenance & Replacement ³				
Well Abandonment ⁴				
			Subtotal	
			Contingency	
			30 Year Post Closure Cost Estimate	
Total Financial Assurance Required (Closure Cost + 30 Year Post Closure Care Cost)				

1. Maintenance - Grass incudes cost for mowing the site five times per year.
2. Assumes 25 wells + 9 QA/QC samples = 34 samples collected 2 times/year for 30 years. Includes cost for additional analyses for semiannual well inspections, Alternate Source Demonstrations, resamples, and rush analysis. Assumes semi-annual reporting for 30 years.
3. Assumes 5% of miscellaneous costs in post-closure care are associated with well maintenance and replacement. Assumes, no additional wells will be installed during post-closure care.
4. Well abandonment includes 25 wells and 1 piezometer completed above grade.

1.15 Financial Assurance

Rule 391-3-4-.10(10)(a) requires financial assurance for all CCR units be provided in accordance with Rule 391-3-4-.13. Per 391-3-4-.13, financial responsibility shall be required for any solid waste handling facility and shall provide adequate financial responsibility to ensure the satisfactory maintenance, closure, and post-closure care of such facility or to carry out any corrective action which may be required as a condition of permit.

Georgia Power will submit the financial assurance mechanism for closure on forms as provided or in a format as prescribed by the Director, Georgia EPD. Georgia Power will provide a demonstration of financial assurance upon approval of closure cost estimates by Georgia EPD.

1.16 Notification and Certification

Georgia Power shall obtain written certification from a professional engineer registered in the State of Georgia that the post-closure care plan meets the requirements of Rule 391-3-4-.10(7).

No later than 60 days following the completion of the post-closure care period, the owner or operator of the CCR unit must prepare a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with this plan. The owner or operator has completed the

notification when it has been placed in the facility's operating record as required by 391-3-4-.10(8) and provided to the Director of Georgia EPD. The release of the CCR unit of post-closure care must be approved by the Georgia EPD.

1.17 Recordkeeping/Notifications, and Posting of Information on the Internet

Georgia Power will comply with all recordkeeping, notification, and posting of information on the internet in accordance with 391-3-4-.10(8)(a). The quality control records of inspection and testing during the post-closure care period will be compiled and maintained in accordance with the solid waste handling permit and post-closure care responsibilities by Georgia Power.

As required by the requirements of Rule 391-3-4-.10(8), Georgia Power shall comply with all recordkeeping requirements of 40 CFR 257.105(i), post-closure notification at the completion of the post-closure care period specified in 40 CFR 257.106(i) and post-closure internet requirements in 40 CFR 257.107(i).