

6. CLOSURE NARRATIVE

A Notification of Intent to Initiate Closure of AP-1 was completed on December 7, 2015, as required by 40 CFR 257.100, and posted to the facility's operating record and to Georgia Power's website under Environmental Compliance. AP-1 was an inactive CCR surface impoundment as defined in 40 CFR 257.53 in that it no longer received CCR on or after October 19, 2015 and still contained both CCR and liquids on or after October 19, 2015.

AP-1 encompassed a total closure area of 30.26 acres. The AP-1 closure-by-removal activities consisted of excavation and removal of all visible CCR until native soils were encountered (CCR/soil interface) indicating that the CCR has been removed. Following removal of all visible CCR, the area was inspected, documented by CQA personnel, and surveyed. In addition, a minimum 6-inch layer of underlying soil was removed below the verified CCR/soil interface. The bottom of excavation surface was then surveyed to confirm a minimum of 6" excavation below the CCR/soil interface.

A total of approximately 650,000 cubic yards of CCR was removed from AP-1. Approximately 40,000 cubic yards of CCR removed from AP-1 was used to establish the final grade elevations for the closure of the onsite R6 CCR Landfill. The remaining CCR was used to establish final grades for a portion of the AMA.

CCR removal activities at AP-1 have been completed and site restoration activities are currently underway. Earthen fill material will be imported from on or off-site as needed and will be placed within the excavation to promote positive drainage and minimize erosion. The final restoration area will be seeded and maintained (fertilized) to meet the requirements in the Manual for Erosion and Sediment Control in Georgia. Areas will be stabilized within two weeks after reaching final grades. Areas where permanent vegetation is slow to establish will receive temporary seeding.

Approximately 1,905 linear feet of an underdrain system was installed in low lying areas to help drain wet areas prior to structural fill placement. The underdrain system consists of an approximate 2-foot by 5-foot area filled with #57 stone and wrapped in a 6-ounce non-woven geotextile filter fabric. At the lowest point of the underdrain system, an approximate 8-foot tall, 24-inch corrugated HDPE stand-pipe was installed to depth in the ground. An approximate 3-foot vertical section of the stand-pipe was perforated at the bottom to collect water from the underdrain. Head pressure then forces the water up through the 24-inch pipe, allowing it to overflow into a rip-rap spillway. A 36-inch RCP placed at the end of the spillway transfers water through the AP-1 south berm into an existing manhole located between the dam and the cooling towers. This manhole is tied to the Plant Yates NPDES water management system. The underdrain system will be abandoned as part of the final grading activities of AP-1.

GPC shall monitor groundwater semi-annually pursuant to the requirements defined in the Groundwater Monitoring Plan included in the permit. GPC proposes to monitor groundwater for a period of five (5) years after the CCR has been removed from the AP-1 footprint 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 reference the constituents in the Federal CCR Rule Subpart D, Appendix III and IV. A demonstration certified by a Qualified Groundwater Scientist will be submitted to EPD for approval documenting that groundwater constituent concentrations are not detected at statistically significant levels above the groundwater protection standards established in Rule 391-3-4-.10(6)(b) for constituents listed in Appendix IV. GPC may make such demonstration at any point after constituents no longer exceed groundwater protection standards. Evaluation criteria may include

but are not limited to, additional sampling, analysis, calculations, and/or modeling to demonstrate compliance with 391-3-4-.10(7)(b) as determined by the Qualified Groundwater Scientist and approved by EPD.

Closure of the CCR unit may be recognized by EPD upon the completion of 5-years of groundwater monitoring after removal of all CCR waste, if constituents do not statistically exceed groundwater protection standards in Appendix IV, and the submission of a demonstration made by a Qualified Groundwater Scientist that the groundwater monitoring data is in compliance with 391-3-4-.10(7)(b).

In accordance with the Georgia Water Well Standards Act (O.C.G.A. § 12-5-120), at least once every five years, the owner of the property on which a monitoring well is constructed shall have the monitoring well(s) inspected by a professional engineer or professional geologist, who shall direct appropriate remedial corrective work to be performed if the well does not conform to standards. Well inspection records and records of remedial corrective work are subject to review by EPD. Additionally, as part of the closure plan, the cost estimate based upon current year cost for the well inspections must be provided for as part of the cost calculations for the groundwater monitoring period.

Georgia Power has no current plans for future use of the property within the AP-1 permit boundary. Georgia Power, as required by EPD, will submit confirmation that a notation on the property deed, inclusive of the AP-1 permit boundary, has been recorded in accordance with State CCR Rule 391-3-4-.10(7)(f).

The remaining closure activities and post CCR removal groundwater monitoring cost are provided in Table 1 and Table 2. In compliance with applicable securities laws and regulations, unredacted cost estimates for remaining closure activities and post CCR removal groundwater monitoring will be provided to EPD under separate cover. The costs include all items necessary for a third-party to complete the remaining closure activities and post CCR removal groundwater monitoring requirements in accordance with the Groundwater Monitoring Plan included herein. The cost estimates provided to EPD are based on an area of 30.26 acres and 2021 unit costs and will be adjusted annually for inflation. GPC will provide a demonstration of financial assurance upon approval of the cost estimates by EPD.

TABLE 1

Ash Pond 1 Closure by Removal Estimate

Item Description	Quantity	Unit	Unit Cost	Cost
Program Management				
<u>Fill Material</u>				
Fill Material - Procure, Transport, Place Structural and Non-Structural Fill ¹				
			Subtotal	
			Contingency	
			Total Closure Cost Estimate	

Notes:

1. Includes fill material from on-site and off-site sources, evaluation for chemical and geotechnical properties, procurement, transportation, and placement per the CQA Plan.

TABLE 2

Ash Pond 1 Post-Closure Cost Estimate

Item Description	Quantity	Unit	Unit Cost	Cost
Post Removal Cost				
Maintenance - Grass/Turf ¹				
Environmental Monitoring				
Groundwater Monitoring & Reporting ²				
Sampling				
Reporting				
Laboratory Analysis				
Groundwater Well Maintenance and Abandonment				
Well Maintenance & Replacement ³				
Well Abandonment ⁴				
Subtotal				
Contingency				
5 Year Post Removal Cost Estimate				
Total Financial Assurance Required (Closure Cost + 5 Year Post Removal Care Cost)				

Notes:

1. Maintenance - Grass includes cost for mowing the site five times per year.
2. Assumes 8 wells + 2 QA/QC samples = 10 samples are collected 2 times/year for 5 years. Includes cost (25%) for additional analyses for Alternate Source Demonstrations, resamples, and rush analysis. Assumes semiannual reporting for 5 years.
3. Assumes maintenance and some replacement for dedicated pumps. Also, assumes 2 wells are replaced during the 5 years.
4. Assumes all wells (8 total) are abandoned at the conclusion of Post-Closure Care.