CLOSURE PLAN

PLANT WANSLEY ASH POND 1 (AP-1) CLOSURE

HEARD AND CARROLL COUNTIES, GEORGIA

FOR

Georgia Power

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Geosyntec consultants

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TABLE OF CONTENTS

LIST OF ACRONYMS

ACD	air curtain destructor
BMP	best management practice
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
CQA	construction quality assurance
EL	Elevation
GA EPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWSCC	Georgia Water Soil Conservation Commission
NPDES	National Pollutant Discharge Elimination System
P.E.	Professional Engineer
WTP	water treatment plant

1. INTRODUCTION

This Closure Plan is included as part of the permit application package being submitted to Georgia Environmental Protection Division (GA EPD) to close Ash Pond AP-1, an existing coal combustion residuals (CCR) surface impoundment at Plant Wansley, located in Heard and Carroll Counties near Carrollton, Georgia. This Closure Plan has been prepared for Georgia Power Company (GPC) pursuant to the State CCR Rule in Chapter 391-3-4-.10 of the Georgia Rules for Solid Waste Management for Closure of CCR Surface Impoundment Units and the Federal CCR Rule in Title 40 of the Code of Federal Regulations (CFR) §257 (40 CFR §257).

2. GENERAL

AP-1 will be closed by removal of CCR from the unit. This closure strategy will eliminate the need for future maintenance and long-term post-closure care. Georgia Power will accomplish this closure of the ash pond by removing, transporting, and placing this CCR in the onsite, existing CCR landfill (expansion to be permitted under a separate application). Note that should GPC choose, CCR may also be transported to an offsite solid waste facility approved to accept CCR. Drawings depicting existing conditions, CCR removal, and final conditions illustrating the closure activities are included in Section 8 of Part A of this permit application.

3. NOTIFICATION

The Notification of Intent to Initiate Closure was signed and posted in the CCR Unit's Operating Record on April 17, 2019. It will be updated to indicate that the closure strategy for AP-1 has changed from closure in place to closure by removal of CCR. Closure activities will commence according to the closure schedule presented in Section 11 of this Closure Plan. Depending on the actual CCR excavation rate achieved during closure activities, complete CCR removal, certification, and Site stabilization, in accordance with this Closure Plan, will be accomplished in an estimated ten to fifteen years following the beginning of closure activities. Natural refilling former AP-1 with water from the surrounding watershed will take another estimated ten years.

4. BOUNDARY SURVEY AND LEGAL DESCRIPTION

A survey drawing (plat) and legal description of the permit boundary, prepared by a Registered Professional Surveyor, is included on Drawing 3 of the Closure Drawings (Section 8 of Part A in this permit application).

5. OPERATING CRITERIA

Pursuant to State CCR Rule 391-3-4-.10(9)(c)5(iii), AP-1's operating criteria required by 40 CFR §257.80, 40 CFR §257.82, and 40 CFR §257.83 are met as described below.

- Air criteria, implemented in accordance with the Plant Wansley Fugitive Dust Control Plan are included as Section 6.3.5 of this Closure Plan.

- Hydrologic and hydraulic capacity requirements, addressed as documented in the Plant Wansley AP-1 Inflow Design Flood Control System Plan dated October 12, 2016, are included in the CCR Postings (Section 4 of Part B in this permit application).

- Inspection requirements for CCR surface impoundments as set forth in 40 CFR §257.83.

6. WRITTEN CLOSURE PLAN

6.1 OVERVIEW

Pursuant to State CCR Rule 391-3-4-.10(7)(c), AP-1 will be closed in accordance with this Closure Plan. An initial written closure plan was posted to the GPC CCR compliance website on October 17, 2016 in accordance with the self-implementing federal CCR Rule 40 CFR §257.102(b), and is now superseded by this written closure plan, which may be amended by GPC at any time. Moreover, as required by 391-3-4-.10(7)(b) [40 CFR §257.102(b)(3)(ii)], this closure plan must be amended whenever (i) there is a change in the operation of the CCR unit that would substantially affect the written closure plan or (ii) before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan. The time frames for amendment to the written closure plan will be in accordance with those specified in 391-3-4-.10(7)(b) [40 CFR §257.102(b)(3)(iii)].

GPC will amend this Closure Plan whenever there is a change that would substantially affect the Closure Plan or unanticipated events necessitate a revision of the closure plan. The Closure Plan will be amended no later than 30 days following a triggering event.

The purpose of this section of the Closure Plan is to describe the steps and procedures required to close Plant Wansley AP-1 in a manner consistent with recognized and generally accepted engineering practices. The major steps to close AP-1 include: site preparation, dewatering, stormwater and contact water management, excavating (potentially including dredging in addition to excavation) and transporting the CCR to a permitted disposal location (i.e., the expanded onsite existing landfill), treating CCR contact water via the on-site water treatment plant (WTP) to meet discharge requirements, restoring vegetation on perimeter slopes and base grades for protection while the pond refills naturally.

6.2 CLOSURE STEPS

The general sequence of activities for Closure by Removal of AP-1 include:

- Site preparation, including but not limited to, clearing trees, grading, constructing access roadways and laydown construction areas, and installing erosion and sediment controls;

- Installation of a water treatment plant (WTP) near AP-1 outlet;

- Bulk removal of CCR via dredging or similar method, followed by removal of free water within AP-1 or removal of free water within AP-1 followed by bulk removal of CCR;
- CCR material transport to the onsite existing landfill;
- Removal of final CCR to its bottom in AP-1 as defined by the visual inspection via conventional excavation, with CCR material transported to the onsite existing landfill;
- Verification of CCR removal;
- Removal of a minimum six inches of additional soils after reaching the CCR/native soil interface via conventional excavation, with material transported to the onsite existing landfill;
- Certification of CCR Removal;
- Temporary stabilization of bottom of excavation surface to prevent erosion;
- Addition of riprap, stability and seepage berm, and riprap buttress on the Separator Dike; and
- Refill of former AP-1 via natural processes for potential plant uses.

The site layout, presenting the extents of the permit boundary is presented in the Closure Drawings in Section 8 of Part A in this permit application.

6.3 PROCEDURES DURING CLOSURE

6.3.1 Dewatering of AP-1

As part of Closure by Removal activities the contact water (either free water within AP-1 or interstitial water removed from the CCR) within AP-1 will be removed to facilitate excavation and certification of CCR removal. Removal and disposal of free water will be accomplished in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit No. GA0026778, effective November 1, 2020 and routed through the onsite water treatment plant (WTP) prior to treatment and discharge through the current outfall structure in accordance with the Dewatering Plan, approved by GA EPD in October 2021. The pipe outlet from AP-1 to the current outfall structure will be sealed prior to commencement of CCR removal such that contact stormwater from AP-1 cannot be discharged prior to passing through the WTP.

The WTP is located in the vicinity of the outfall structure on a lined laydown/containment area to assure that, in the unlikely event of an overflow or

accidental discharge, water from the WTP area can be conveyed back into AP-1 for storage and retreatment by the WTP. The WTP will operate at all times when discharging water; the system may operate up to 24 hours per day. The WTP will be configured to treat a water flow of approximately 4,000 gallons per minute (gpm), but the treatment flow capacity of the WTP may be increased to 6,000 gpm, if needed.

During the closure process, surface water may be separated between CCR-contact and non-contact water. Non-contact stormwater will be managed in accordance with applicable NPDES stormwater and erosion and sediment control requirements and will be conveyed through appropriate stormwater management features and erosion and sediment controls prior to discharge. Contact stormwater will be routed to the WTP as described within this section.

6.3.2 CCR Removal and Removal Criteria

CCR removal technique and sequence will be based on Contractor means and methods. Many site-specific factors will be considered including access into and out of the ash pond, haul routes, dewatering methods, detailed CCR excavation and final restoration phasing plans, the excavation working face size, and excavation and hauling methods. Bulk removal of CCR may be completed either by dredging or conventional excavation. Final removal of CCR will be completed via conventional excavation in the dry.

In general, the Contractor will remove CCR and associated infrastructure from the southwest of AP-1 working east towards the Separator Dike, constructing berms to reduce contact water as areas of AP-1 are certified for CCR removal. This certification process will be performed in accordance with the CQA Plan, included in Section 5 of Part A of the permit application. The CCR removal verification process will generally include the following:

- CCR removal activities will be observed by the CQA Consultant. Observations will be made in reference to a 100-foot by 100-foot Site grid system established for the closure project. Each grid location will be assigned a unique label for reference and documentation purposes.

- Once the Contractor has reached the bottom of CCR excavation, the surface will be jointly observed and documented to confirm removal of visible CCR. Visual observations and the Munsell Soil Color Chart will be used as the basis to confirm that visible CCR has been removed to the extent practicable. At a minimum frequency of one per 100-foot grid, the interface (i.e., top of the natural soils immediately underlying the CCR that is removed) will be photographed by the CQA Consultant to document the CCR removal verification process. Additionally, the area

will be surveyed to develop a topographic map denoting the bottom-of-CCR across AP-1.

- Once CCR removal is confirmed, documented, and the area is surveyed, the excavation will continue by removing at least six inches of additional soil underlying the bottom of CCR. Verification and documentation of removal thicknesses will be performed by surveying the area again to create a bottom of excavation surface. If the bottom of excavation is found to be at least six inches below the surveyed bottom of CCR [provided that it is practicable to achieve the excavation (e.g., competent bedrock has not been encountered)], then the removal action for the surveyed area is considered complete. CCR excavation activities will cease when CCR removal verification for each grid location is completed and documented by the CQA Consultant.

- All field activities performed by the CQA Consultant to support verification of CCR removal will be documented in the CQA Certification Report that will be submitted to GA EPD.

6.3.3 Site Restoration

Following completion of CCR removal and certification the former AP-1 will be restored per the Closure Drawings, including the following:

- Placement of a stability and seepage berm at the toe of the Separator Dike in the former AP-1.

- Placement of riprap on the Separator Dike in the former AP-1 for erosion control.

- Placement of a riprap buttress at the toe of the Separator Dike in the Storage Water Pond.

- Refill of former AP-1 via natural processes (i.e., rain and stormwater run-on) for potential plant uses.

6.3.4 Geotechnical Instrumentation

Geotechnical instrumentation may be utilized to obtain subsurface information to monitor ground conditions during CCR removal. Instrumentation may include settlement plates, slope inclinometers, vibrating wire piezometers, standpipes, and other instruments.

6.3.5 Fugitive Dust Control Plan

The purpose of this fugitive dust control plan is to demonstrate compliance with the fugitive dust requirements in GA EPD Rule 391-3-4.10 and 40 CFR § 257.80 (b)(1) through (7) of the CCR Final Rule. See 80 Fed. Reg. 21,302 (April 17, 2015). EPA defines CCR fugitive dust as "solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than through a stack, or chimney." [40 CFR § 257.53; incorporated by reference in GA EPD Rule 391-3-4.10(2)(a)].

This fugitive dust plan identifies and describes the CCR fugitive dust control measures that GPC Plant Wansley will use to minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities. The fugitive dust control measures that will be used are presented below:

- Fugitive dust originating from the closure of the AP-1 will be controlled using water suppression and compaction.
- CCR that is transported via truck to the existing onsite landfill will be conditioned to appropriate moisture content to reduce the potential for fugitive dust.
- Water suppression will be used, as needed, to control fugitive dust on facility roads used to transport CCR and other CCR management areas.
- Speed limits will be used to reduce the potential for fugitive dust.
- Trucks used to transport CCR will be filled to or under capacity to reduce the potential for material spillage.

The fugitive dust control measures identified and described in this Closure Plan were selected based upon an evaluation of site-specific conditions at AP-1, including the physical properties of CCR, the specific closure construction activities, weather conditions, and operating conditions.

GPC personnel and/or their contractors will assess the effectiveness of the control measures by performing visual observations of AP-1 and surrounding areas. Appropriate corrective actions for fugitive dust will be implemented as necessary. Logs will be used to record the use of water-spray equipment.

Should a complaint be received from a citizen regarding a CCR fugitive dust event at the facility, the complaint will be documented and investigated. Appropriate steps will be taken, including any corrective action, if needed.

Amendments to the fugitive dust control plan may be made at any time as required due a change in conditions that would affect the in-place plan. All revisions to the fugitive dust control plan will be documented and placed in the operating record.

6.3.6 Organic Materials Management

AP-1 contain a variety of vegetation from trees and underbrush to non-woody plants. Woody vegetation will be cut above the ground and removed prior to removing CCR. Vegetation and wood waste will be managed in the following manner:

1. Trees and logs may be harvested, windrowed or stockpiled for mulching prior to off-site disposal, chipped for use on-site as a best management practice (BMP) measure, burned through approved methods, or disposed of at a permitted landfill.

2. Large bushes may be windrowed or stockpiled for mulching prior to disposal, burned through approved methods, or disposed of at a permitted landfill.

3. Stumps and tree roots may be windrowed or stockpiled for mulching prior to disposal, chipped for use on-site as a BMP measure, burned through approved methods, or disposed of at a permitted landfill.

4. Grass and brush may be windrowed or stockpiled for mulching prior to disposal or disposed of at a permitted landfill.

Remaining wood waste from grubbing work within the CCR footprint will be managed and kept separate from surface-cut wood waste. Wood waste that contains CCR will be managed within the ash pond limits in the following manner:

1. Stumps and tree roots may be mechanically screened to remove CCR, windrowed or stockpiled for mulching prior to disposal, burned through approved methods, or disposed of at a permitted landfill.

2. Grass and bushes may be mechanically screened to remove CCR and windrowed or stockpiled for mulching prior to disposal at a permitted landfill.

The following procedures will be followed for onsite burning:

1. Use an air curtain destructor (ACD) for all burning. Obtain an ACD Permit by submitting an online permit application at http://www.gatrees.org/online-permits/AddACDPermit.cfm?County=Heard. Burn Type 13 “Land Clearing – Burning with Air Curtain Destructor” is allowed for Heard County as long as the following conditions are met:

i. Authorization for such open burning is received from the fire department having local jurisdiction over the open burning location prior to initiation of any open burning at such location (if required);

ii. The location of the ACD is at least 300 feet from any occupied structure or public road. An ACD used solely for utility line clearing or road clearing may be located at a lesser distance upon approval by the GA EPD;

iii. No more than one ACD is operated within a ten (10)-acre area at one time or there must be at least 1,000 feet between any two ACDs;

iv. Only wood waste consisting of trees, logs, large brush, and stumps which are relatively free of soil are burned in the ACD;

v. Tires or other rubber products, plastics, heavy oils, or asphaltic based or impregnated materials are not used to start or maintain the operation of the ACD;

vi. The ACD is constructed, installed, and operated in a manner consistent with good air pollution control practices for minimizing emissions of fly ash and smoke;

vii. The cleaning out of the ACD pit is performed in a manner to prevent fugitive dust; and

viii. The ACD cannot be fired before 10:00 a.m. and the fire must be completely extinguished, using water or by covering with dirt, at least one hour before sunset.

2. Follow GA EPD's guidance document "Open Burning Air Curtain Destructor Operation Guide".

3. Obtain a burn permit from the Georgia Forestry Commission.

4. Heard County is subject to the GA EPD Summer Burn Ban (May 1st – September 30th). Therefore, ACD burning operations at Plant Branch will cease from May 1st through September 30th unless otherwise approved by the Georgia Forestry Commission or local fire department, whoever has local jurisdiction over the ACD operation.

5. Coordinate with local fire department and notify GA EPD.

6.3.7 Equipment Decontamination

Before removing a piece of equipment that has been in contact with CCR from the active work area of AP-1, the equipment will be inspected and cleaned with water. Water generated from this activity will be managed as contact water and treated by the dewatering system prior to discharge.

6.3.8 Inspections

The following inspections are performed in accordance with State CCR Rule 391-3-4-.10(5)(b):

- 7-Day Inspections: GPC inspects the CCR unit and discharge of all hydraulic structure outlets at intervals not exceeding seven (7) days. The 7-day inspections are made by a qualified person and include observation and documentation of any appearance of actual or potential structural weakness and other conditions which are disrupting of have the potential to disrupt the operation or safety of the facility.

- 30-Day Inspections: GPC monitors all CCR unit instrumentation at intervals not exceeding 30 days. These instrumentation monitoring examinations are made by a qualified person.

- Annual Inspections: A qualified professional engineer (P.E.) registered in Georgia inspects the CCR unit on an annual basis to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection includes at a minimum, the following activities:

    i. A review of available information regarding the status and condition of the CCR unit, including but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections);

    ii. A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and

    iii. A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

The results of this annual inspection are presented in a report that is placed in the facility's operating record as well as on the GPC CCR Compliance website. The annual inspection report will address the following: (i) any changes in geometry of the impounding structure since the previous annual inspection; (ii) the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; (iii) the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection; (iv) the storage capacity of the impounding structure at the time of inspection; (v) the approximate volume of impounded water and CCR at the time of the inspection; (vi) any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation or safety of the CCR unit and appurtenant structure; and (vii) any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection.

If a potential deficiency or release is identified during an inspection, GPC will remedy the deficiency as soon as feasible. If needed, GPC will activate the Emergency Action Plan and follow the appropriate procedures outlined in that plan. GPC will prepare documentation detailing the corrective measures taken and will place it in the facility's operating record.

6.3.9 Site Security

Access to Plant Wansley property will be controlled by fence and security personnel. All gates will be locked and a sign will be placed at the entrance to AP-1.

6.3.10 Groundwater Monitoring

Groundwater will be monitored in accordance with Section 6 (Groundwater Monitoring Plan) of Part A in this permit application.

6.4 MAXIMUM INVENTORY OF CCR

AP-1 currently contains an estimated 15.9 million cubic yards of in-place CCR (Material Balance in Section 2 of Part B in this permit application). While the extent of CCR removed from AP-1 will be placed in the onsite CCR landfill, to the extent possible GPC will look to divert CCR to beneficial use.

7. CERTIFICATION OF CLOSURE

Pursuant to State CCR Rule 391-3-4-.10(7)(e), once all CCR removal is complete and groundwater monitoring concentrations at the Site have been demonstrated not to exceed the applicable

Federal and State groundwater protection standards, GPC will submit a closure report to the GA EPD Director. The closure report will be completed on forms provided by GA EPD.

8. VEGETATIVE PLAN

The final restoration areas for AP-1 will be maintained to meet the requirements in the Manual for Erosion and Sediment Control in Georgia. Areas will be stabilized within two weeks after reaching and verifying final grades by the CQA Consultant. As previously stated, following closure the former AP-1 will be refilled via natural processes for potential plant uses.

9. EROSION AND SEDIMENT CONTROL

Erosion and sediment control measures will be designed, permitted, installed, and maintained in accordance with the Manual for Erosion and Sediment Control in Georgia [GSWCC, 2016], the permit drawings, and the detailed design drawings prepared in accordance with the State CCR Rule. A phased Erosion, Sedimentation, and Pollution Control Plan will be prepared as part of the detailed design depicting erosion, sediment, and stormwater and contact water management strategies during CCR excavation.

10. COST OF CLOSURE

In compliance with applicable securities laws and regulations, GPC will provide specific cost estimates for the closure under separate cover. A narrative has been added to note the acreage the estimate is based on, the year in which estimates were completed, and that costs will be adjusted annually for inflation. GPC will provide a demonstration of financial assurance upon approval of closure and post-closure cost estimates by GA EPD.

11. CLOSURE SCHEDULE

The following is a conceptual-level schedule communicating the anticipated milestones of major closure activities; it will be refined as closure activities begin.

Table 1. Anticipated Closure Schedule for AP-1

Activity	Duration/Schedule
Mobilization and Site Preparation (including clearing and grubbing)	Year 1
Ash Pond Closure Construction Activities (including dewatering, CCR removal, related earthwork, and site restoration)	Year 1 to Year 15 (estimated 10 to 15 years)
Submit Certification Reports Documenting the Removal to GA EPD	Year 1 to Year 15 (estimated 10 to 15 years)
Groundwater Monitoring During Ash Pond Closure	Year 1 to Year 15 (estimated 10 to 15 years)
Post CCR-Removal Groundwater Monitoring	5 years following completion of closure construction
Submit a Closure Report to the GA EPD Director	Upon demonstrating groundwater monitoring concentrations at the Site do not exceed the applicable Federal and State groundwater protection standards

12. RECORDKEEPING/NOTIFICATION/INTERNET REQUIREMENTS

GPC will comply with the requirements of State CCR Rule 391-3-4-.10(8), which references the recordkeeping requirements of 40 CFR §257.105(i), closure notification requirements specified in 40 CFR §257.106(i), and closure internet requirements in 40 CFR §257.107(i).

13. POST-CCR REMOVAL

Following closure of AP-1 GPC will utilize the refilled pond as an industrial pond for Plant operations. Given that the closure strategy is Closure by Removal, a formal Post-Closure Plan is not needed. Following CCR removal, GPC will conduct post-CCR removal groundwater monitoring for five (5) years to verify the completion of Closure by Removal by demonstrating that the groundwater monitoring concentrations at the Site do not exceed the groundwater protection standards established pursuant to GA EPD rules 391-3-4-.10(6) (incorporating 40 CFR 257.95(h)) for constituents listed in Appendix IV. GPC will cease groundwater monitoring following five years and no observations of exceedances of the groundwater protection standard for constituents listed in Appendix IV. Once complete, AP-1 will be formally closed.