

# CLOSURE PLAN

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PLANT SCHERER - ASH POND AP-1  
MONROE COUNTY, GEORGIA

FOR



Georgia  
Power

SEPTEMBER 2024



**AECOM**

## TABLE OF CONTENTS

ACRONYMS AND ABBEVIATIONS .....	1-3
<b>1</b> General .....	1-1
1.1 Site Background .....	1-1
1.2 Notification .....	1-2
1.3 Boundary Survey and Legal Description .....	1-2
<b>2</b> Closure Plan .....	2-1
2.1 Closure Configuration and Components .....	2-2
2.2 Conceptual Closure Sequence .....	2-5
2.3 Directional Informational Signs .....	2-9
2.4 Fugitive Dust Control Plan .....	2-9
2.5 Inspections .....	2-10
2.6 Organic Materials Management .....	2-11
2.7 Pond Dewatering Process .....	2-11
2.8 Stormwater and Contact Water Management .....	2-12
2.9 NPDES Industrial Wastewater Discharge Permit .....	2-12
2.10 Wastewater Management .....	2-12
2.11 Removal of CCR .....	2-12
2.12 Final Cover .....	2-13
2.13 Restoration and Vegetation Plan .....	2-14
2.14 Site Equipment Needed .....	2-15
2.15 Sediment Removal .....	2-15
2.16 Erosion and Sedimentation Control .....	2-15
2.17 Closure Drawings .....	2-15
2.18 Cost of Closure and Financial Assurance .....	2-16
2.19 Closure Schedule .....	2-16
2.20 Groundwater Monitoring .....	2-17
2.21 Recordkeeping/Notification/Internet Requirements .....	2-17
<b>3</b> References .....	3-1

FIGURES

Figure A: AP-1 Closure Plan .....2-2  
Figure B: Planned Plant Scherer Ash Pond 1 (AP-1) Closure Approach/Design .....2-5  
Figure C: AP-1 Final Cover System Detail.....2-13  
Figure D: Figure D: AP-1 Alternative Final Cover System Detail.....2-13

## ACRONYMS AND ABBEVIATIONS

AP-1	Plant Scherer Ash Pond 1
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
CQA	Construction Quality Assurance
EPA	Environmental Protection Agency
E&SC	Erosion and Sediment Control
GA	Georgia
EPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GSWCC	Georgia Soil and Water Conservation Commission
NPDES	National Pollutant Discharge Elimination System
USEPA	United States Environmental Protection Agency
WWTS	Waste Water Treatment System

Note : Acronyms and abbreviations not included in the table are defined in the text the first time used.

## 1 GENERAL

Georgia Power Company (GPC) will close the Plant Scherer Ash Pond 1 (AP-1) in accordance with the closure requirements specified in Georgia Environmental Protection Division (EPD) Coal Combustion Residual (CCR) Rule (391-3-4-.10) and US Environmental Protection Agency CCR Rule (40 CFR 257.102).

### 1.1 Site Background

Plant Scherer (Plant) is located in Juliette, Georgia, situated at the northeast edge of Monroe County and approximately 30 miles north of Macon and 60 miles southeast of Atlanta. The Plant is located in a rural area and bordered by mainly agricultural and residential properties. The Plant occupies approximately 12,000 acres and is situated on the north banks of the 3,600-acre Lake Juliette, a manmade lake constructed in conjunction with the Plant in the early 1980s. The four coal-fired units at Plant Scherer are capable of producing approximately 3,600 megawatts of electricity.

The four coal-fired units at Plant Scherer include flue gas desulfurization (FGD) equipment (“scrubbers”), selective catalytic reduction systems (SCRs), and baghouses. During AP-1’s operating life, Coal Combustion Residuals (CCRs) and other process water generated by the plant were stored in a 550-acre surface impoundment situated on-site, northwest of the main plant. The present inventory of CCR in AP-1 is approximately 15.3 million cubic yards.

AP-1 was commissioned in 1980 and has been in operation since the plant became commercially operational in 1982. AP-1 has two discharge structures; one is a “morning-glory” standpipe that serves as the principal spillway that normally passes decanted flows to the settling pond (referred herein as the recycle pond), and a second emergency spillway that also discharges to the recycle pond during elevated (storm related) pool levels. AP-1 is operated in conjunction and in series with the recycle pond in a water recirculating mode in which clarified effluent from the AP-1 discharges by gravity to the recycle pond, which then serves as the source of water used by the plant for operations. The recycling pond has a permitted emergency overflow discharge (Outfall 07) to Lake Juliette under the plant’s NPDES permit GAD00612796.

The AP-1 perimeter embankment functions as a cross-valley dam. This embankment dike includes a continuous embankment situated on the north and east sides of AP-1 and the AP-1 south dike, situated on the south side of AP-1 and bordering Plant Scherer. The AP-1 dike has a maximum height of approximately 100 feet and the AP-1 southern dike has a maximum height of approximately 30 feet. The minimum crest elevation of the embankment dike is El. 504.1 ft, and the upstream slopes are covered with a grout-filled erosion protection blanket that spans from El. 485 feet to the crest. The crest of the dike is surfaced with grass and a gravel access drive. Downstream slopes are covered with grass, and both upstream and downstream slopes are at a 3H:1V (horizontal to vertical) orientation. The AP-1 dike is regulated by the Georgia Department of Natural Resources Safe Dams Program, and is categorized as “Category 1 High Hazard” dam, with an assigned State ID 102-032-04236. A dam drain collection system is included within the perimeter dikes to aid in dam stability. Collected water is managed and handled

through a toe drain and series of sumps and mechanical pumping systems known as “Bolster Sumps”. In total, AP-1 dikes have five bolster sump structures and pumping systems (PS-1, PS-1A, PS-2, PS-5, and PS-6) to collect and convey collected water from the dam drain collection system into AP-1. Upon commencement of closure construction, the bolster sumps will be tied to a force main routed to the water treatment system.

## 1.2 Notification

In correspondence to the Georgia Environmental Protection Division (EPD) dated September 19, 2018, GPC requested a variance to continue use of the Scherer AP-1 under Rule 391-3-4-.10(11) of the Georgia Rules for Solid Waste Management. The variance was necessary due to the need to design, procure, and construct a large-scale wastewater treatment system capable of handling wastewater from a large 4-unit coal fired power plant. EPD approved the variance request in correspondence dated November 1, 2018, which granted GPC permission to continue operation of the Scherer AP-1 until October 31, 2020. GPC provided a Notification of Intent to Initiate closure of AP-1 on October 30, 2020, and closure activities were initiated. GPC will complete all closure activities for AP-1 in accordance with this Closure Plan.

Upon completion of closure construction activities, Georgia Power will submit a closure report prepared by a professional engineer registered in Georgia to the Director for approval in accordance with 391-3-4-.10(7)(e) and 40 CFR 102(f)(3). Concurrent with the submission of the closure report to the Director, GPC will submit confirmation to the EPD Director that a notation on the property deed, inclusive of the AP-1 permit boundary, has been recorded. This recording must in perpetuity notify any potential purchaser of the property that the land has been used as a CCR surface impoundment and that its use is restricted in accordance with the post closure care requirements of Georgia Rules of Solid Waste Management 391-3-4-.10(7)(g). Within 30 days of completing this deed notation, GPC will prepare a notification and place it in the facility’s Operating Record in accordance with 40 CFR 257.102(i) .

In accordance with 391-3-4-.10(7)(e), if the Director concurs with the closure report, closure will be deemed complete and the facility may begin the post-closure care period. Within 30 days of regulatory completion of closure of the CCR unit, GPC will place the approval letter from the Director in the facility’s Operating Record to serve as the notification of closure in accordance with 40 CFR 257.102(h).

## 1.3 Boundary Survey and Legal Description

In accordance with State CCR Rule 391-3-4-.10(9)(b)(3), a sealed boundary survey and legal description of the proposed CCR permit boundary are provided in the permit drawings, titled “Permit Boundary Survey”. The total area bounded by the proposed CCR permit boundary is approximately 794 acres.

## 2 CLOSURE PLAN

This Closure Plan has been prepared for GPC's AP-1, which is located at Plant Scherer in Monroe County, Georgia. This Closure Plan was prepared in accordance with 391-3-4-.10 and 40 CFR 257.102.

AP-1 will be closed by consolidating the CCR within the 550-acre surface impoundment to a smaller footprint in accordance with 391-3-4-.10 and 40 CFR 257.102(b)(1)(iii). The proposed closure footprint will consist of two primary regions within the existing AP-1 footprint in the remaining area; a CCR removal area located to the north, and the consolidated closure-in-place (CIP) footprint. The two proposed closure areas will be separated by a new northern embankment berm (referenced herein as the north berm) that will buttress the consolidated CCR materials within the consolidated closure-in-place footprint and form the limit of the final cover. AP-1 will be closed by consolidating the CCR within the existing 550-acre impoundment area to a smaller 300-acre footprint. An additional 50-acre area adjacent to the impoundment referred to as the Knob Area, that has never contained any CCR, will be covered with the same cover system to eliminate stormwater infiltration. The reduced footprint will then be closed-in-place. Figure A below illustrates the proposed closure plan for AP-1.

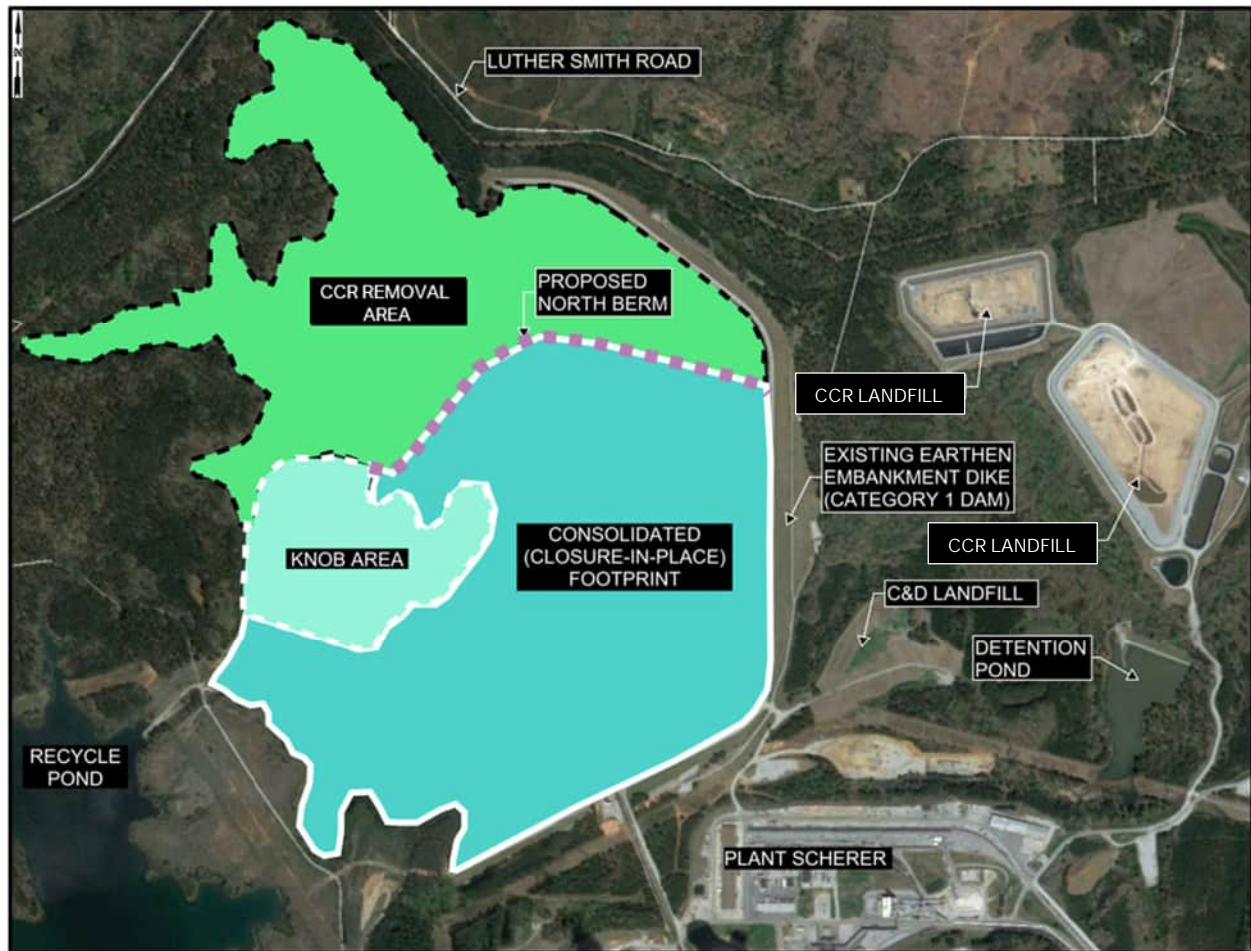


Figure A: AP-1 Closure Plan

## 2.1 Closure Configuration and Components

The proposed AP-1 closure consists of the following main elements as it pertains to geometry and supporting features:

- AP-1's CCR closure footprint surface will be graded into a ridge and valley "herringbone" design to minimize the quantity of additional fill required to establish suitable final cover grades.
- CCR will be graded to promote positive drainage to the final cover system stormwater feature drainage swales and perimeter ditches. The stormwater drainage swales and ditches will flow and discharge to outlet structures that will convey post-closure surface water runoff from the final cover partly west to the Recycle Pond and partly east to Berry Creek. In general, approximately 60% of the consolidated closure footprint has been designed to flow west to the Recycle Pond, and the remaining portion of the closure footprint including the eastern and northern portions have been designed to flow east to Berry Creek.



- Conveyance of post-closure stormwater flows west to the Recycle Pond will require the complete removal of the existing “morning glory” principal spillway structure situated at the southwest corner of AP-1 and the replacement of the spillway with a trapezoidal conveyance channel, known as the Southwest Outlet Channel.
- Conveyance of post-closure stormwater flows east to Berry Creek will be accomplished by the north berm letdown culvert structure that has been designed into the consolidated closure-in-place cap system to convey flows down a section of the north berm into a trapezoidal conveyance channel (referred to herein as “letdown channel”) and then into a planned detention basin (Detention Basin A). Detention Basin A will include a primary spillway outlet structure that will discharge into a new outlet channel (Northeast Outlet Channel) that has been designed to flow into Berry Creek just east of AP-1. Detention Basin A has also been designed to manage and convey flows from two upstream detention basins (denoted as Detention Basin B and C) within the north CCR removal area.
- The 50-acre high topographic region located adjacent to AP-1, referred to as the knob area, is located outside of the AP-1 limits and does not contain CCR. The knob area will be covered with a low-permeable cover system (either a soil or geosynthetics cover, or a combination of both) that will facilitate a transition from the consolidated closure-in-place footprint final cover system to the knob area cover system, to eliminate the infiltration of stormwater upgradient to the CCR unit. Please note, the knob area does not contain CCR, however, the cover system will be maintained in similar fashion as the cover system over the reduced CCR footprint.
- Removal of free liquids from AP-1 will be necessary to perform the CCR removal of the north area and also to complete the planned earthwork activities within the southern consolidated closure-in-place footprint.
- The existing AP-1 CCR delta has scattered high and low spots that will require earthwork and regrading activities to achieve the proposed consolidated closure-in-place footprint final cover grades. Maximum fills (as great as 50 feet) are expected beyond (north of) the existing CCR delta where the north berm will be constructed. Cuts in the CCR delta that extend below the normal pool level of AP-1 (El. 494.5 NAVD88) will require CCR dewatering methods to achieve the proposed final cover grades. Dewatering will be performed in compliance with a dewatering plan approved by the EPD Watershed Protection Branch.
- Establishing the north CCR removal area will require excavation and removal of CCR within this 200-acre section of AP-1 and relocating the excavated materials south to inside the consolidated closure-in-place footprint. Based on comparing 1980 predevelopment USGS topographic map contours to 2015 bathymetric data, and based on 2016 and 2019 free liquids exploration borings completed in the free liquids portion of AP-1 by AECOM, thin (<1 foot) deposits of CCR are expected across most of the planned CCR removal area. Once CCR is removed and verified including the top six inches of natural soils underlain by the CCR from the CCR removal area, the remaining subgrade will be graded to sheet flow post-closure stormwater

flows into a series of channels and stormwater detention basins, then east via the Northeast Outlet Channel that will discharge to Berry Creek.

- The planned new north berm will be an earthen embankment constructed out of local site soils and founded on the native residual foundation soils in-place currently beneath AP-1. The crest of the embankment will be 24 ft wide and a 20 ft wide drivable access road will be constructed along its finished crest. The north berm crest elevation will vary along its alignment, but will generally follow the proposed grading of the consolidated final cover grades and contours, and the final cover system stormwater conveyances, with the lowest elevation at the letdown structure planned for the northeast corner of the consolidated closure-in-place footprint. The high section of the new north berm will be at its planned intersection with the existing east AP-1 dike and at the opposite (west) end where the berm will tie-in with the side-slopes of the knob area.

Figure B below shows the planned AP-1 closure approach/design, with each of the above key features indicated on the figure along with the design final cover system grades.

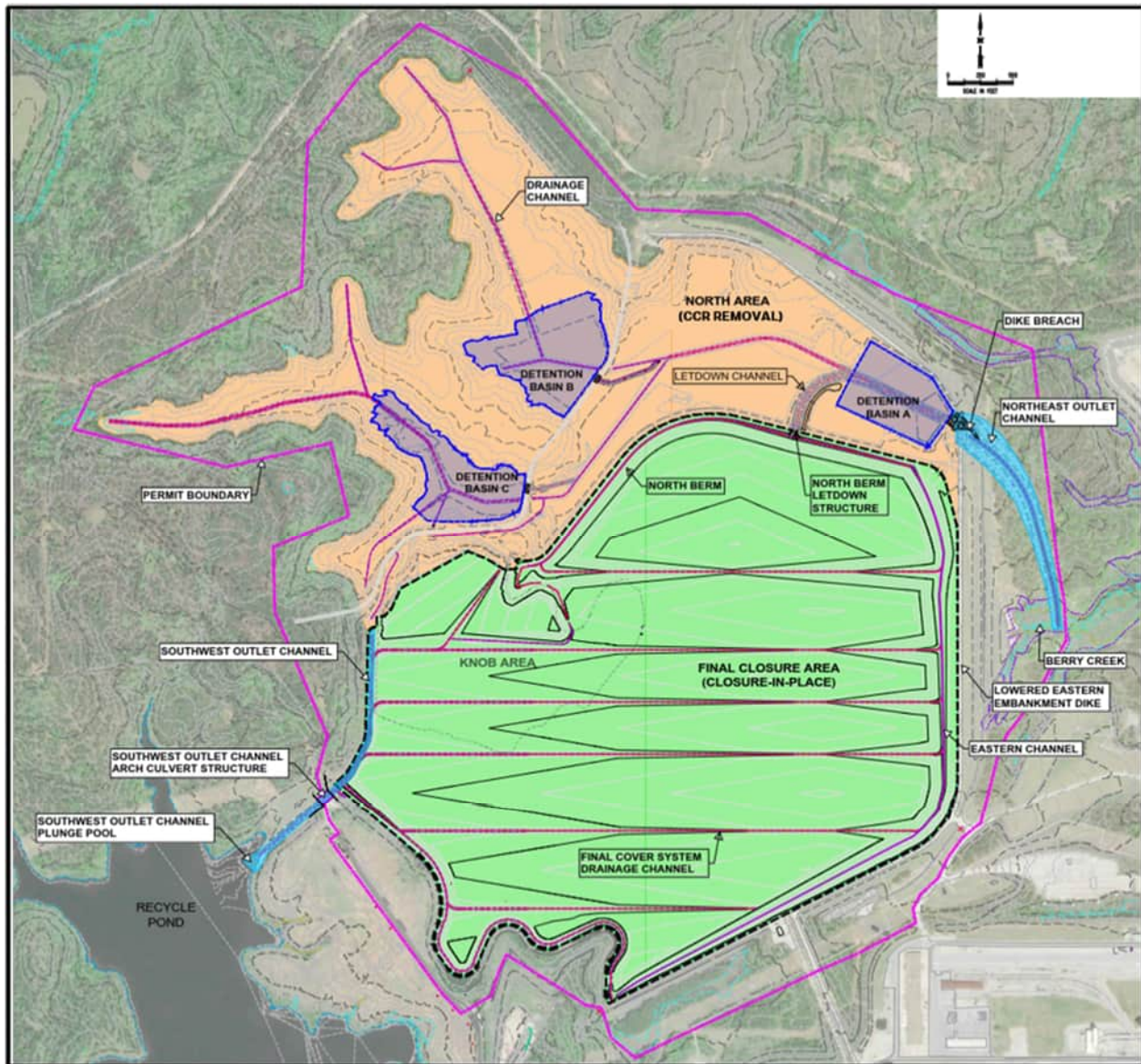


Figure B: Planned Plant Scherer Ash Pond 1 (AP-1) Closure Approach/Design

## 2.2 Conceptual Closure Sequence

Based on the proposed components associated with implementing the AP-1 closure activities, a conceptual closure sequence is provided below and is shown on the Permit Drawings (Sheets 19, 20, and 21).

Stage 0 includes the following generalized activities:

- Cease active ash disposal
- Initiate closure activities
- Install erosion and sediment controls

- Construct free water decant forcemain, install platforms for pumps, and free water removal system
- Commence installation of temporary dewatering system
- Construct temporary berms to divert and manage stormwater run-on
- Commence removal of free water from ash pond and remove free water from southwest pond area
- Commence initial grading activities of consolidated closure-in-place-in-place footprint including eastern channel
- Commence construction of detention basin access roadway
- Commence demolition and removal of sluice piping, process piping, coal runoff piping, sluice pipe bridge, borl silo foundations, wells and piezometers, and abandoned underground gas line
- Clear and grub CCR contact materials along the ash pond perimeter and within the pond footprint
- Clear and grub non-contact materials denoted on the existing conditions plan

Stage 1 includes the following generalized activities:

- Continue to remove free water from ash pond to el. 480 feet
- Commence removal of CCR within the CCR removal area
- Continue temporary dewatering activities for construction purposes
- Continue construction of earthen berms and other temporary construction stormwater management items
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Commence and complete construction of temporary water management surge pond
- Continue to construct and maintain erosion and sediment controls
- Continue detention basin access roadway construction as free water is removed and CCR removal activities are completed
- Commence demolition of fabriform/wave protection along ash pond dike perimeter as free water is removed and excavation progresses to proposed grade. Alternatively, fabriform removal may be delayed until all of the free water is removed in a later stage

Stage 2 includes the following generalized activities:

- Continue to remove free water from ash pond to el. 460 feet
- Continue removal of CCR within CCR removal area and placement within the consolidated closure-in-place footprint fill area
- Continue temporary dewatering activities for construction purposes
- Continue construction and maintenance of temporary construction stormwater management items
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Continue detention basin access roadway construction
- Continue demolition of fabriform along ash pond dike perimeter as free water is removed and CCR removal excavation progresses. Alternatively, fabriform removal may be delayed until all of the free water is removed in a later stage

Stage 3 includes the following generalized activities:

- Continue to remove free water from ash pond to el. 450 feet

- Continue removal of CCR within CCR removal area and placement within the consolidated closure-in-place footprint fill area
- Continue temporary dewatering activities for construction purposes
- Continue construction and maintenance of temporary construction stormwater management items
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Continue detention basin access roadway construction
- Commence placement of final cover system within completed subgrade areas of consolidated closure-in-place footprint and installation of non-contact stormwater management features in completed final cover system areas
- Continue demolition of fabriform along ash pond dike perimeter as free water is removed and CCR removal excavation progresses. Alternatively, fabriform removal may be delayed until all of the free water is removed in a later stage
- Commence construction of bolster sump reroute

Stage 4 includes the following generalized activities:

- Complete free water removal within CCR removal area and commence contact water management in the CCR removal area.
- Continue CCR removal excavation and commence CCR removal activities within north berm footprint area.
- Continue temporary dewatering activities for construction purposes
- Continue construction and maintenance of temporary construction stormwater management items
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Continue detention basin access roadway construction
- Continue final cover system construction within completed subgrade areas of consolidated footprint and installation and maintenance of non-contact stormwater management features in completed final cover system areas
- Complete demolition of fabriform along ash pond dike perimeter
- Continue and complete the construction of the bolster sump reroute. Existing bolster sump structures or forcemains to be demolished after construction of reroute is complete

Stage 5 includes the following generalized activities:

- Continue stormwater management in CCR removal and continue managing contact water
- Continue CCR removal excavation and placement within the consolidated closure-in-place footprint fill area
- Continue to manage and operate temporary dewatering system for construction purposes
- Complete the construction of the detention basin access road
- Commence and complete construction of the north berm
- Commence construction for the southwest outlet channel
- Continue final cover system construction within completed subgrade areas of consolidated closure-in-place footprint and installation and maintenance of non-contact stormwater management features in completed final cover system areas
- Commence demolition of the existing primary and emergency spillway

Stage 6 includes the following generalized activities:

- Continue stormwater management in CCR removal and continue managing contact water
- Continue to manage and operate temporary dewatering system for construction purposes
- Commence grading the north area to final post-closure grades
- Construct letdown channel and detention basin a
- Commence construction of detention basins b and c
- Complete construction of the delivery route roadway and arch culvert structure over the southwest outlet channel
- Continue grading activities for the eastern channel of the consolidated closure-in-place footprint
- Complete demolition of the primary and emergency spillway
- Remove portions of the wellpoint system as fill placement occurs within the closure-in-place footprint

Stage 7 includes the following generalized activities:

- Continue stormwater management in CCR removal and continue managing contact water
- Continue to manage and operate temporary dewatering system for construction purposes
- Complete grading in the north area to final post-closure grades
- Complete construction of detention basins b and c
- Commence and complete the northeast outlet channel to within 100 feet of the dike footprint, do not breach dike
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Continue placement of final cover system within completed subgrade areas of consolidated closure-in-place footprint
- Continue to remove portions of temporary dewatering system as final cover system subgrades are achieved
- Commence construction of cover access roadways in completed final cover areas

Stage 8 includes the following generalized activities:

- Continue stormwater management in CCR removal prior to dike breach and following dike breach allow stabilized areas to discharge to berry creek
- Continue managing contact water within the closure-in-place footprint
- Continue consolidated closure-in-place footprint grading to achieve subgrade for final cover system
- Continue placement of final cover system within completed subgrade areas of consolidated closure-in-place footprint
- Continue to remove portions of temporary dewatering system as final cover system subgrades are achieved
- Breach eastern dike at northeast outlet channel after upstream areas of final cover are completed
- Commence construction on post-closure access roadways along north, eastern and south ash pond perimeter
- Commence placement of channel bedding and armoring materials within the closure-in-place footprint
- Continue construction of cover access roadways in completed final cover areas

Stage 9 includes the following generalized activities:

- Demolish and remove temporary water management surge pond in CCR removal area
- Perform final grading within the consolidated closure-in-place footprint to achieve subgrade for final cover system in remaining region denoted on plans
- Continue to remove portions of temporary dewatering system as final cover system subgrades are achieved
- Complete placement of final cover system within the final region denoted on the plans
- Complete placement of channel bedding and armoring materials within the closure-in-place footprint
- Continue to manage non-contact water systems until final cover is completed
- Complete final cover post-closure access roads
- Complete placement of channel bedding and armoring materials
- Perform reseeding as needed to stabilize any low vegetation areas

Stage 10 includes the following generalized activities:

- Ash Pond 1 closure activities are complete
- Temporary construction facilities are removed
- Erosion and sediment controls are removed once all disturbed areas are stabilized

## 2.3 Directional Informational Signs

Signs shall be posted at the entrance gate and access gates that will notify users of the CCR surface impoundment closure. A telephone number for emergencies shall be printed on the sign.

## 2.4 Fugitive Dust Control Plan

This section identifies and describes the CCR fugitive dust control measures that GPC will use to minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from AP-1, roads, and material handling activities. EPD State CCR Rule 391-3-4-.10(2)(a) (incorporating 40 CFR §257.53 by reference) defines “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.”

Fugitive dust originating from AP-1 and the closure activities will be controlled using water suppression, compaction, synthetic or vegetative covers, or dust suppression agents.

The fugitive dust control measures identified and described in this plan were adopted and implemented based upon an evaluation of site-specific conditions and are determined to be applicable and appropriate for the Plant Scherer AP-1 closure. Evaluation included assessing the effectiveness of the fugitive dust control measures for the facility, taking into consideration various factors such as site conditions, weather conditions, and operating conditions.

CCR that is transported via truck to stockpiles prior to final placement will be conditioned to appropriate moisture content to reduce the potential for fugitive dust. Water suppression or polymer tackifiers 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 utilized 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.

GPC and construction personnel will assess the effectiveness of the control measures by performing visual observations of AP-1 and surrounding areas and implementing appropriate corrective actions for fugitive dust, as necessary. Logs will be used to record the utilization of water-spray equipment.

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

In accordance with §257.80(b)(6), (7), and (d), the fugitive dust control plan will be amended whenever there is a change in conditions that would substantially affect the plan. Annual fugitive dust control reports will be prepared and placed in the facility's Operating Record as required by 40 CFR §257.80(c).

## 2.5 Inspections

Surface impoundment inspection during closure will continue to be performed as set forth in 391-3-4-.10(5)(iii) and 40 CFR §257.83 until AP-1 closure activities has been completed.

### 7-day Inspections

As required by 391-3-4-.10(5)(b) and 40 CFR §257.83(a)(1)(i-ii), GPC currently inspects AP-1 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 or have the potential to disrupt the closure activities or the safety of the surface impoundment.

### 30-Day Inspections

As required by 391-3-4-.10(5)(b) and 40 CFR §257.83(a)(1)(iii), GPC currently inspects the instrumentation at AP-1 at intervals not exceeding 30 days. The 30-day inspections are made by a Qualified Person.

### Annual Inspections

As required by Chapter 391-3-4-.10(5)(b), which incorporates the operating criteria listed in 40 CFR 257.83, a Professional Engineer registered in Georgia inspects AP-1 on an annual basis. The inspection includes observation and documentation of any appearance of actual or potential structural weakness and other conditions of the design and construction which are disrupting or have the potential to disrupt the operation or safety of the unit. Visual inspections include identifying signs of distress or malfunction of the CCR unit and appurtenant structures, and visual inspections of the hydraulic structures associated with the CCR unit closure design. Additionally, the annual inspection includes a review of the weekly and monthly inspection results and available information regarding the status and condition of AP-1. The results of the annual inspection, including noted impounded water volume and depth, are presented in a report that is placed in the facility's operating record and as well as on the GPC website under Environmental Compliance.



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 place it in the facility's operating record at a minimum.

## 2.6 Organic Materials Management

AP-1 and the adjacent knob area contain a variety of vegetation from trees and underbrush to non-woody plants. Woody vegetation will be removed prior to initiating grading and earthwork activities. Vegetation and wood waste will be managed in the following manner:

1. Trees and logs may be harvested 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 stockpiled for mulching prior to disposal, burned through approved methods, or disposed of at a permitted landfill.
3. Stumps and tree roots may be 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 stockpiled for mulching prior to disposal, or disposed of at a permitted landfill.

Remaining wood waste from work within AP-1 will be kept separate from surface-cut wood waste. Wood waste that contains CCR will be managed within AP-1 limits in the following manner:

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

## 2.7 Pond Dewatering Process

Dewatering will include removing CCR contact water and legacy wastewater using a variety of methods, including but not limited to passive, gravity-based methods (e.g. rim ditches) and/or active dewatering methods (e.g. pumps and well points) as needed to allow for CCR excavation and transportation. CCR contact water and legacy wastewater from AP-1 will be further treated by an on-site wastewater treatment system (WWTS). Water will be managed and discharged in accordance with the site's approved NPDES Wastewater Discharge Permit.

A detailed Ash Dewatering Plan was approved by GA EPD in March 2023 and describes specific treatment processes, monitoring frequency, planned chemical usage, and best management practices necessary to comply with the NPDES wastewater permit limits.

## 2.8 Stormwater and Contact Water Management

During CCR removal, run-on stormwater and run-off contact water (e.g. stormwater that has come into contact with CCR) will be contained within the AP-1 limits and controlled with best management practices such as channels, diversion berms, and pumps and managed in accordance with the NPDES Construction Storm Water, Industrial Storm Water and Industrial Wastewater Discharge permit(s). GPC will prepare a phased erosion and sediment control plan that will be followed for closure construction activities, as needed.

Stormwater and contact water will be segregated and managed using dikes, berms, and pumping, as the discharge strategy for each source of water differs. Contact water will be contained within the AP-1 limits and pumped and treated at the on-site WWTS prior to discharge. Contact water will be prevented from ponding as much as practicable to facilitate CCR removal. Stormwater does not require treatment by the WWTS and may be discharged directly to receiving water bodies after conveyance through erosion and sediment controls.

Stormwater, or non-contact water runoff will be routed around the CCR excavation and be conveyed (e.g. via pumps or gravity flows) to the existing surface water management system (ditches, channels and drop inlets) until the CCR is removed and AP-1 dike is breached. Temporary berms, diversion ditches, or rain tarps will be utilized between the final restoration areas (e.g., areas with CCR and 6" subgrade soil excavated and/or with restoration grades completed) and active excavation areas to reduce potential for generating contact water.

## 2.9 NPDES Industrial Wastewater Discharge Permit

Wastewater discharges from Plant Scherer are currently regulated under NPDES Permit No. GA0035564, which defines acceptable discharge limits to Berry Creek, Lake Juliette (via Rum Creek), and Ocmulgee River (Ocmulgee River Basin). The permit includes Plant Final discharge to the Ocmulgee River, combined outfall discharges, cooling tower blowdown for Units 1 through 4 and basin drains, wastewater basins, detention pond (I-Pond) discharges to Berry Creek, and NPDES basin emergency overflow, emergency overflows from the recycle pond to Lake Juliette, and service water flows to Lake Juliette. The permit establishes effluent limitations and monitoring requirements, which GPC will follow for discharges from the WWTS in accordance with the EPD-approved GPC Plant Scherer, NPDES Permit.

## 2.10 Wastewater Management

An on-site WWTS will treat contact water generated during AP-1 closure activities. GPC will treat the wastewater to meet the NPDES Wastewater Discharge Permit GA0035564 effluent discharge requirements as described in the approved Ash Pond Dewatering Plan.

## 2.11 Removal of CCR

"CCR removal" refers to the process of verifying and documenting that the CCR has been removed from AP-1. AP-1 is known to contain a mixture of fly ash and bottom ash collectively referred to as CCR. The

CCR removal verification is based on removing visible CCR and a minimum of six additional inches of native soil. The documentation of this procedure is presented in Section 4 of the Construction Quality Assurance (CQA) Plan.

The CCR removal area located in the northern portion of AP-1 will have CCR materials removed and placed within the southern consolidated closure-in-place footprint (GPC may elect to place some CCR removed from AP-1 into the existing permitted CCR Landfill located onsite at Plant Scherer). This corresponds to approximately 200 acres of CCR removal area that will be verified free of CCR after closure has been completed.

## 2.12 Final Cover

Upon closure, all CCR in the surface impoundment will be spread, compacted, and capped with the final cover system of the consolidated closure-in-place footprint of AP-1 as described in this permit application. As required by 391-3-4-.10 and 40 CFR 257.102(d)(3)(i), the final cover system will be constructed to meet the criteria in paragraphs (d)(3)(i)(A) through (D).

The final cap system will meet the following standards:

- A. Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;
- B. Preclude the probability of future impoundment of water, sediment, or slurry;
- C. Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;
- D. Minimize the need for further maintenance of the CCR unit; and
- E. Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

Disruption of the integrity of the final cover system will be minimized through a design that accommodates settling and subsidence.

Figure C below illustrates the proposed Final Cover detail for AP-1.

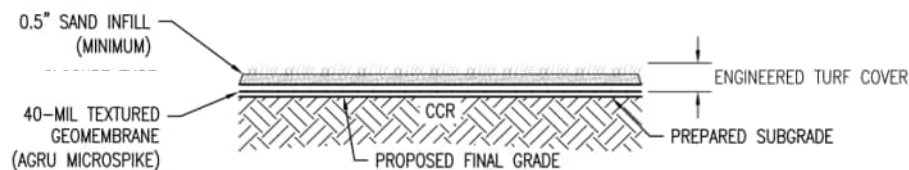


Figure C: AP-1 Final Cover System Detail

The final cover system is composed of a geomembrane overlain by an engineered synthetic turf and sand infill material. Vegetation will not be required for areas final covered with engineered synthetic turf.

GPC may elect to utilize a conventional vegetative cover system as an alternative that will be designed and constructed to meet or exceed the requirements specified by the 40 CFR 257.102(d)(3)(i).

The alternative Final Cover System will consist of a geomembrane barrier layer installed on a prepared CCR surface subgrade that is finish graded per the planned consolidated closure-in-place footprint design. The geomembrane will be overlain by a drainage geocomposite, an 18-in. thick compacted soil layer, and a 6-in. thick vegetative cover soil. The Alternative Final Cover System exhibits performance equal to or greater than the USEPA regulatory standard final cover system. Figure D below illustrates the proposed alternative cover system detail for AP-1.

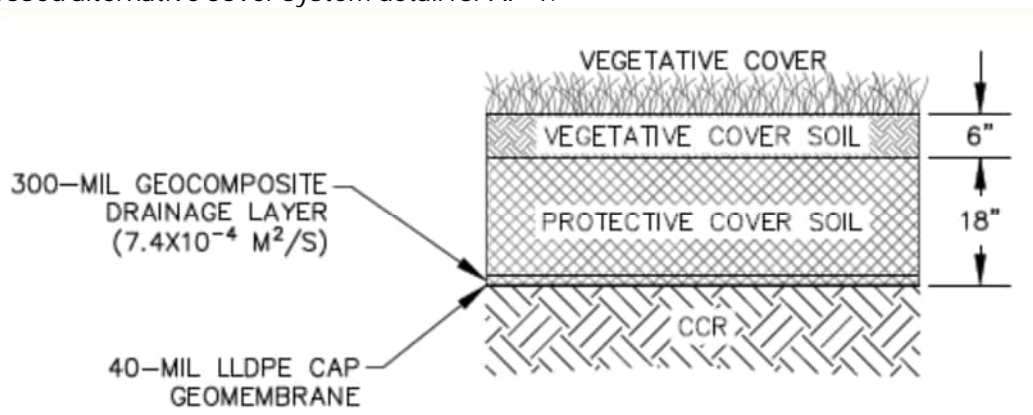


Figure D: AP-1 Alternate Final Cover System Detail

Material will come from a properly permitted offsite borrow source if and only if the alternative final cover system is utilized.

## 2.13 Restoration and Vegetation Plan

Vegetation will not be required for areas covered with the final cover system.

The alternative conventional soil and geosynthetic final cover system contain two layers of soil: (i) a protective soil layer (bottom); and (ii) a vegetative cover layer (top). The vegetative cover layer serves as the erosion control layer and is designed to promote vegetative growth while limiting wind and water erosion. To promote growth of vegetation, the vegetative layer of the final cover system and the soil ground surface of disturbed project areas will be seeded, limed, and fertilized within two weeks of the layer's installation. The types of vegetation to be seeded, the applicable planting dates, and the associated seed and fertilizer specifications, application rates, and application methods will comply with the Disturbed Area Stabilization (With Permanent Vegetation) details in the Closure Drawings. The source of these details is the Georgia Water Soil Conservation Commission (GWSCC).

During temporary lapses in construction activity, temporary stabilization measures will be installed on exposed areas within 14 days of disturbance and in accordance with the Disturbed Area Stabilization

(With Mulching Only) or Disturbed Area Stabilization (With Temporary Seeding) details in the Closure Drawings. These details are also from GWSCC.

## 2.14 Site Equipment Needed

Equipment will be provided by the contractor(s) performing specified closure activities. GPC will make adequate equipment available to ensure that closure requirements are executed correctly and efficiently, if specified by GPC. Should said equipment not be available, back up equipment may be obtained from rental companies.

## 2.15 Sediment Removal

Accumulated sediment will be removed from site stormwater conveyance features such as diversion ditches, channels, letdown channels, swales, basins, and other drainage structures. Accumulated sediment during the closure activities will be disposed of within the AP-1 southern consolidated closure-in-place footprint or in a permitted off-site landfill.

## 2.16 Erosion and Sedimentation Control

Upon closure, all ditches, diversion berms, culverts, riprap, and other drainage structures serving disturbed areas, but not already built, will be constructed and placed according to the activities associated with the AP-1 closure.

For the final cover system, temporary seeding over disturbed areas of the CCR removal area and closure-in-place footprint will be used as soon as practicable prior to final grading. Seeds will be from desired species of grasses, as prescribed in the most recent edition of the Manual of Erosion and Sediment Control in Georgia.

Permanent seeding of the alternative final cover system will occur prior to the completion of closure activities. Permanent vegetation will be established and maintained to provide long-term erosion control and prevent sediment from leaving the Site. Preparation of a vegetative cover shall include seeding, mulching, and any necessary fertilization at a minimum, and may include additional activities such as sodding of steeper slopes and drainage ways if necessary. Application rates for seeding and fertilizing of vegetation will be adjusted appropriately. Temporary erosion control blankets may be used if necessary to provide seedbed protection and prevent wash-out of seed and fertilizer during vegetation establishment. No deep-rooted vegetation capable of growth below the 6-inch erosion layer shall be used.

## 2.17 Closure Drawings

Permit drawings, titled "Plant Scherer CCR Closure Permit Drawings" have been prepared depicting existing and final conditions associated with the AP-1 closure construction. The Existing Site Conditions drawing (Sheet 4) shows the pre-closure topography and site features, and the Groundwater and Surface Water Monitoring Locations (Sheet 5) shows the existing groundwater monitoring well locations. The proposed CCR removal area anticipated CCR excavation plan (Sheet 7) and north berm construction plan

(Sheet 9) portrays interim conditions showing the expected CCR excavation grades and separation north berm to be constructed as part of the closure. The north CCR removal area grading plan (Sheet 12), final cover grading plans (Sheet 13 and 14), and southwest outlet channel plan (Sheet 17) show the proposed post-closure conditions of AP-1. The drawings also identify select infrastructure remaining or to be demolished at the interim and final conditions.

## 2.18 Cost of Closure and Financial Assurance

In compliance with applicable securities laws and regulations, GPC will provide cost estimate information for closure to EPD under separate cover. The closure costs include all items necessary for a third-party to complete the project in accordance with the Closure Plan as set forth herein. The closure cost estimates will be based on the largest area requiring final cover (i.e., 350 acres including AEM knob area cap) and 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 closure and post-closure care cost estimates by EPD.

## 2.19 Closure Schedule

AP-1 closure construction activities are estimated to be completed by 2033. Since the closure schedule is anticipated to exceed five years, GPC will request two-year extensions as necessary to complete closure. Each two-year extension request (up to five total) made to the EPD Director will provide the factual circumstances demonstrating the need for the extension. Closure will be conducted in phases as discussed previously, but it should be recognized that not all activities on the closure schedule will occur on a continuous basis throughout their scheduled durations, consistent with the previously described sequence of closure steps. A list of closure activities/milestones and schedule with estimated approximate timeframes is provided below. The closure schedule and milestones are based on estimates of the approximate timeframes to implement each specific closure activity.

- A. Provide written Notification of Intent to close AP-1 (notification issued October 30, 2020).
- B. Remove AP-1 free liquids and legacy wastewater (Yrs 1 through 6).
- C. Excavate CCR from northern CCR removal area (Yrs 1 through 9).
- D. Place, grade, and compact CCR within the southern consolidated closure-in-place footprint (Yrs 2 through 10).
- E. Complete final grading and install final cover system (Yr 10).
- F. Prepare accurate boundary survey and legal description of final CCR management boundary (Yr 10).
- G. Provide the Closure Construction Report to the EPD Director. The report shall be prepared by a professional engineer registered in the State of Georgia. The EPD's approval of the closure report completes the closure process. Within 30 days of the EPD's approval of the closure report

and therefore completion of closure of the CCR unit, Georgia Power will place the approval letter from the Director in the facility's Operating Record to serve as the notification of closure in accordance with 40 CFR 257.102(h) (Yr 11).

- H. Concurrent with the submission of the closure report to the Director, GPC will submit confirmation that a notation on the property deed, inclusive of the AP-1 permit boundary, has been recorded. This recording must in perpetuity notify any potential purchaser of the property that the land has been used as a CCR surface impoundment and that its use is restricted under the post-closure care requirements of Georgia Rules of Solid Waste Management 391-3-4-.10(7). Within 30 days of completing this deed notation, Georgia Power will prepare a notification and place it in the facility's Operating Record (Yr 11).

## 2.20 Groundwater Monitoring

In accordance with State Rule 391-3-4-.10(9)(c)(5)(v), 40 CFR §257.104(c) and the facility's groundwater monitoring plan Georgia Power will conduct post-closure care during the post-closure care period of at least 30 years for both the closure in place in the south and CCR removal area in the north of Scherer AP-1. If, at the end of the 30-year post-closure care period, groundwater at AP-1 is being monitored under the assessment monitoring program in accordance with 40 CFR §257.95, Georgia Power must continue to conduct post-closure care until AP-1 returns to detection monitoring in accordance with 40 CFR §257.95. This Closure Plan may be amended in accordance with the requirements of State Rule 391-3-4-.10(7)(g). If at the end of the post-closure care period AP-1 is operating under detection monitoring in accordance with §257.94, Georgia Power must submit a demonstration certified by a Qualified Groundwater Scientist to EPD for approval demonstrating that the facility has returned to detection monitoring. Evaluation criteria may include but are not limited to additional sampling, analysis, calculations, and/or modeling to demonstrate compliance with 391-3-4-.10 as determined by the Qualified Groundwater Scientist and approved by EPD.

## 2.21 Recordkeeping/Notification/Internet Requirements

GPC will comply with all recordkeeping requirements of 391-3-4-.10(8) and 40 CFR 257.105(i), closure notification requirements specified in 391-3-4-.10(8) and 40 CFR 257.106(i) and closure internet requirements in 391-3-4-.10(8) and 40 CFR 257.107(i).

### 3 REFERENCES

Georgia Power Company 2016a, Initial Written Closure Plan for a CCR Surface Impoundment or Landfill, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016b, History of Construction, Plant Scherer Ash Pond (AP-1)

Georgia Power Company 2016c, Initial Hazard Potential Classification Assessment, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016d, Initial Inflow Design Flood Control System Plan, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016e, Liner Design Criteria, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016f, Initial Post-Closure Care Plan, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016g, Initial Safety Factor Assessment, Plant Scherer Ash Pond (AP-1), October 17, 2016.

Georgia Power Company 2016h, Initial Structural Stability Assessment, Plant Scherer Ash Pond (AP-1), October 17, 2016.

GDNR 2006. Plant Scherer NPDES Permit No. GA0035564, Georgia Department of Natural Resources, Environmental Protection Division. November 29, 2006.

WSP 2024. Hydrogeologic Assessment Report, Plant Scherer Ash Pond 1 (AP-1), Permit No. APL1023, Monroe County, Georgia. September 2024.

WSP 2024. Groundwater Monitoring Plan, Plant Scherer Ash Pond 1 (AP-1) Permit No. APL1023, Monroe County, Georgia. September 2024.



