

CLOSURE PLAN

ASH POND 2 PLANT YATES COWETA COUNTY, GEORGIA

FOR



Georgia Power

November 2018



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1. GENERAL

Plant Yates, owned by Georgia Power Company (Georgia Power), is located at 708 Dyer Road, on approximately 2,400 acres located on the east bank of the Chattahoochee River in Coweta County, Georgia. Plant Yates originally operated seven coal-fired steam generating units. Five of the units were retired in 2015 and the two largest units were converted from coal to natural gas. Plant Yates currently operates as a natural gas electric generation plant. Ash Pond 2 (AP-2) was designed to receive and store coal combustion residuals (CCR) produced as a result of the coal-fired electric power generating process at Plant Yates. Currently, AP-2 is permitted to discharge under an individual National Pollutant Discharge Elimination System (NPDES) Permit (GA GA0001473).

2. NOTIFICATION

Closure activities will commence no later than 30 days after the date on which it receives the known final receipt of waste, either CCR or any non-CCR waste stream, or Permit approval from the Georgia Environmental Protection Division (GAEPD). Georgia Power will complete the closure activities for AP-2 in accordance with this Closure Plan within the timeframe allowed by 391-3-4-10(7)(b) of the State Rule, which incorporates the requirements of 40 CFR 257.102(f).

3. AMENDMENTS OF THE CLOSURE PLAN

Georgia Power must amend the written Closure Plan whenever:

- There is a change in the operation of the CCR unit that would substantially affect the written closure plan in effect; or
- Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.

Georgia Power must amend the closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit, Georgia Power will amend the current closure plan no later than 30 days following the triggering event.

Georgia Power will obtain a written certification from a qualified professional engineer that the amendment of the written closure plan meets the requirements of the GAEPD Rules.

4. CLOSURE PROCEDURES

4.1. OVERVIEW

Pursuant to State CCR Rule 391-3-4-.10(7)(c), AP-2 will be closed in accordance with this Closure Plan. AP-2 closure by removal will be accomplished in three phases, which are illustrated in the Closure Drawings attached to this permit application.

In Phase 1, a temporary soil mix wall will be constructed east of the existing energy dissipation dike to bisect AP-2 into two areas: AP-2 East and AP-2 West. An intake structure and principal spillway pipe will be installed in AP-2 East to carry contact water from AP-2 East to the existing onsite waste water treatment system that discharges through the existing National Pollutant Discharge Elimination System (NPDES) permitted outfall (GA0001473). AP-2 West will then be dewatered and CCR will be excavated and disposed of in the Ash Management Area (AMA) on Plant Yates property or sold for beneficial re-use. CCR removal will include removing all visible ash and over excavating into the subgrade soils a minimum of 6- inches.

In Phase 2, a permanent service water pond dam will be constructed adjacent to the soil mix wall to permanently divide the East and West ponds. A bypass channel will be constructed to intercept all upstream stormwater from the “non-contact water ditch” and route it into AP-2 West. AP-2 East will then be dewatered and CCR will be excavated and disposed of in the AMA or sold for beneficial re-use.

Finally, the temporary soil mix wall will be removed and AP-2 West will be backfilled and graded for positive drainage. Upon completion of the closure by removal, AP-2 West will no longer hold water and will no longer be a pond, and AP-2 East will serve as the plant’s service water pond for operations.

4.2. FUGITIVE DUST CONTROL PLAN

During clearing and grubbing, excavation, grading, hauling, loading trucks, and transportation operations, dust control measures will be implemented to control fugitive dust from CCR removal, pond closure, and transportation activities. This fugitive dust control plan identifies and describes the CCR fugitive dust control measures that Georgia Power uses to minimize CCR from becoming airborne during closure activities, including CCR fugitive dust originating from the ash pond, roads, and material handling activities. Georgia EPD State CCR Rule 391-3-4-.10(2)(a) (incorporating 40 CFR § 257.53 by reference) 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.”

Fugitive dust originating from the AP-2 closure activities is controlled using water suppression. 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 Yates ash pond 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 for disposal is conditioned to a moisture content appropriate to reduce the potential for fugitive dust.

Water suppression is used as needed to control fugitive dust on facility roads used to transport CCR and other CCR management areas.

Speed limits are utilized to reduce the potential for fugitive dust.

Trucks used to transport CCR are filled to or under capacity to reduce the potential for material spillage and will be covered prior to transport.

Georgia Power and construction personnel assess the effectiveness of the control measures by performing visual observations of the ash pond and surrounding areas and implementing appropriate corrective actions for fugitive dust, as necessary. Logs are used to record the utilization of water-spray equipment.

If a complaint is 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.

The Fugitive Dust Control Plan for all the Plant Yates CCR Units is posted on the Georgia Power website under Environmental Compliance and is also included in Appendix B.

4.3. ORGANICS MANAGEMENT

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

1. Trees and logs may be harvested, stockpiled for mulching, chipped for use on site as a best management practice (BMP) measure, or disposed of at an off-site landfill.
2. Large bushes may be stockpiled for mulching or disposed of at an off-site landfill.
3. Stumps and tree roots may be stockpiled for mulching, chipped for use on site as a BMP measure, or disposed of at an off-site landfill.
4. Grass and brush may be stockpiled for mulching or disposed of at an off-site landfill.

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

1. Stumps and tree roots may be mechanically screened to remove ash, or disposed of at an off-site landfill.
2. Grass and bushes may be mechanically screened to remove ash, or disposed of at an off-site landfill.

4.4. POND DEWATERING AND WASTE WATER TREATMENT SYSTEM

Dewatering of AP-2 is anticipated to be performed in stages as described in this closure plan. Dewatering will include removing water 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 the ash pond 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 Dewatering Plan (“Dewatering Plan”) was prepared and submitted to EPD’s Watershed Protection Branch for review. This plan described specific treatment processes, monitoring frequency, any planned chemical usage, and best management practices necessary to comply with the NPDES permit limits. The Dewatering Plan was approved by the Water Protection Branch of the Georgia EPD on September 27, 2018.

4.5. 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 controlled with best management practices such as channels, diversion berms, and pumps. Discharges from Plant Yates are currently regulated under NPDES Permit GA0001473. Georgia Power will prepare a phased erosion and sediment control plan that will be followed for closure construction activities, as needed.

Stormwater, or non-contact water runoff, will be managed in accordance with applicable stormwater and erosion and sediment control requirements and will be used on-site or conveyed through appropriate stormwater management features and erosion and sediment controls.

4.6. CCR EXCAVATION AND REMOVAL CRITERIA

In the context of this Closure Plan, “CCR removal” refers to the process of verifying and documenting that the CCR has been removed from the ash ponds. The ash pond 2 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 soil. The documentation of this procedure is presented in the Construction Quality Assurance (CQA) Plan.

5. GROUNDWATER MONITORING

Georgia Power will monitor groundwater semi-annually pursuant to the requirements defined in the Groundwater Monitoring Plan included in the permit. Georgia Power proposes to monitor groundwater for a period of five (5) years after the CCR has been removed from the AP-2 footprint to confirm that groundwater monitoring concentrations do not exceed the groundwater protection standards established in 391-3-4-.10(6)(b) which reference the constituents listed in 40 CFR 257, Subpart D, Appendix IV of the Federal Rules.

6. ESTIMATE OF CCR QUANTITY

The estimated volume of CCR to be excavated from AP-2 and placed in the AMA is presented in Table 1 below.

Table 1. Estimated CCR Quantity

Ash Pond	Quantity of CCR (cubic yards) to AMA
2	855,000 ¹

1. Initial Written Closure Plan posted to Plant Yates CCR Rule Compliance Information website.

7. VEGETATION PLAN

At the completion of closure activities all exposed areas we be grassed and maintained to meet the requirements in the Manual for Erosion and Sediment Control in Georgia. These areas will be stabilized as appropriate for the final conditions. Final surfaces will be seeded and mulched within 30-days after reaching final grades. Permanent covers which are slow to establish will receive temporary seeding.

8. EROSION AND SEDIMENTATION CONTROL

Plant Yates currently discharges stormwater under NPDES Industrial Discharge Permit GA0001473. This permit governs discharges into the Chattahoochee River from outfall 01. The permit establishes effluent limitations and monitoring requirements, which Georgia Power will follow for discharges from the waste water treatment system (WWTS).

AP-2 is totally contained within the NPDES permit system. The WWTS will not be decommissioned until all CCR material has been removed from the footprint of AP-2 and water treatment is no longer needed on site.

Erosion and Sedimentation Control measures are shown on the drawings. Additional measures will be taken as required or as directed by the CQA Engineer to minimize erosion of soil.

9. INSPECTIONS

Surface impoundment inspections during closure activities will continue to be performed in accordance with 40 CFR 257.83 until CCR removal has been completed.

7-DAY INSPECTIONS

Georgia Power currently inspects the compacted soil embankment of AP-2 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.

Additionally, at intervals not exceeding seven days, the discharge primary spillway is inspected for abnormal discoloration, flow, or discharge of debris or sediment.

Georgia Power records the results of these inspections on a form that is filed in the facility's operating record.

If a potential deficiency or release is identified during an inspection, Georgia Power will remedy the deficiency or release as soon as feasible. Georgia Power will prepare documentation detailing the corrective measures taken and place it in the facility's operating record.

ANNUAL INSPECTIONS

As required by Chapter 391-3-4-.10(5)(b), which incorporates the operating criteria listed in 40 CFR 257.80, 40 CFR 257.82, and 257.84 of the Federal CCR Rules, a Professional Engineer registered in Georgia inspects AP-2 on an annual basis. The inspection includes, at a minimum:

- a. A visual inspection of AP-2 to identify signs of distress or malfunction of the compacted soil embankment and/or the principal spillway.
- b. A review of available information regarding the status and condition of AP-2, including, but not limited to, files available in the facility's operating record such as:
 - i. The results of weekly inspections and the results of previous annual inspections,
 - ii. Files available in the operating record and other conditions which have disrupted or have the potential to disrupt the closure activities or safety of AP-2.

ANNUAL REPORTING

At the completion of each annual inspection, the Professional Engineer who completed the inspection will prepare an annual report that includes the following:

- a. Any changes in geometry of the AP-2 compacted soil embankment since the previous annual inspection;
- b. The approximate volume of CCR contained in AP-2 at the time of the inspection;
- c. Any appearances of an actual or potential structural weakness of the CCR within AP-2, or any existing conditions that are disrupting or have the potential to disrupt the closure activities and stability of the CCR; and
- d. Any other change(s) which may have affected the stability or operation of the compacted soil embankment since the previous annual inspection.

Annual Inspection Reports for the Plant Yates AP-2, which meet the requirement of Chapter 391-3-4-.10(5) of the Georgia Rules, can be found online at Georgia Power website under Environmental Compliance Information.

10. ON-GOING PLANT OPERATIONS AND MAINTENANCE

Plant operations and maintenance will occur within the permit boundary. Activities needed to construct, maintain, replace or repair systems for electric power generation or its delivery (such as subsurface piping, electrical appurtenances, transmission structures, etc.) may be conducted at Georgia Power's discretion within the permit boundary during and after removal activities have been completed.

11. COST OF CLOSURE AND FINANCIAL ASSURANCE

In compliance with applicable securities laws and regulations, Georgia Power will provide specific cost estimates for closure and post-closure care during the permit application review process as estimates are developed and finalized. It is anticipated these estimates will be available to EPD in the first half of 2019. Georgia Power will provide a demonstration of financial assurance upon approval of closure and post-closure care cost estimates by EPD.

12. CLOSURE SCHEDULE

Closure activities are anticipated to start in 2019. It is estimated that the activities necessary to satisfy the applicable regulatory closure criteria will have an approximate 5-year duration. A list of

milestones is provided below that will be met over the approximately three-year closure period:

- Notify Georgia EPD of intent to close;
- Provide Georgia EPD with date of final CCR receipt;
- Site preparation and development of contractor laydown areas;
- Install and maintain erosion and sediment control systems serving disturbed areas;
- Construct temporary Soil Mix Wall to bisect AP-2 into West and East;
- Construct Principal Spillway Pipe from AP-2 East to NPDES outfall;
- Dewater AP-2 West and mechanically excavate CCR;
- Construct permanent earthen dam (Service Water Pond Dam);
- Construct Non- Contact Surface Water diversion channel to AP-2 West;
- Dewater AP-2 East and mechanically excavate CCR;
- Remove Soil Mix Wall;
- Refill Service Water Pond and final grade AP-2 West;
- Prepare accurate legal description of the former CCR boundary; and
- Provide the CCR removal completion report to the Director. Submit to the Director confirmation that the notation on the property deed has been recorded.

13. RECORDKEEPING/NOTIFICATION/INTERNET REQUIREMENTS

Georgia Power will comply with the requirements of State CCR Rule 391-3-4-.10(8) which reference the closure recordkeeping, notification, and internet posting requirements listed in 40 CFR 257.105(i), 40 CFR 257.106(i) and 40 CFR 257.107(i) of the Federal Rules. Internet postings may be found in the Georgia Power Company website under Environmental Compliance.

<https://www.georgiapower.com/CCRRuleCompliance>

14. CERTIFICATION OF CLOSURE

Upon completion of CCR removal, a professional engineer registered in Georgia will prepare and Georgia Power will submit a closure construction report documenting the removal to GA EPD. 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, Georgia Power will submit a closure report to the EPD Director. The closure report will be completed on forms provided by GA EPD.

Georgia Power, as required by EPD, will submit confirmation that a notation on the property deed,

inclusive of the AP-2 permit boundary, has been recorded in accordance with State CCR Rule 391-3-4-.10(7)(f). This recording will notify any potential purchaser of the property in perpetuity that the land has been used as a CCR surface impoundment and that its use is restricted under the post-closure care requirements of the GA EPD CCR Rule. The deed will include the dates that the surface impoundment operations commenced and terminated, an accurate legal description of the surface impoundment location, and a description of the type of CCR that have been deposited in the impoundment. Within 30 days of completing this deed notification, Georgia Power will place this documentation in the operating record for the Plant.

15. BOUNDARY AND LEGAL DESCRIPTION

The permit boundary is defined on the Closure Drawings for AP-2. A survey drawing of the permit boundary and a legal description, prepared by a Registered Professional Surveyor, is included on Sheet 3 in the Closure Drawings of this permit package.

All that parcel or tract of land lying and being in land lots 44, 50, 51 and 73 of the 4th District, Heard County, Georgia and being more particularly described as follows:

The Point of Beginning is located at the Georgia State Plane, West Zone, NAD83 coordinates of: N 1262995.61 and E 2076620.13; thence running South 32 degrees 03 minutes 53 seconds West a distance of 616.71 feet to a point; Thence running North 55 degrees 34 minutes 29 seconds West a distance of 532.72 feet to a point; Thence running South 48 degrees 47 minutes 12 seconds West a distance of 362.34 feet to a point; Thence running South 70 degrees 28 minutes 04 seconds West a distance of 172.41 feet to a point; Thence running South 29 degrees 38 minutes 19 seconds West a distance of 141.02 feet to a point; Thence running South 08 degrees 29 minutes 47 seconds West a distance of 123.25 feet to a point; Thence running South 14 degrees 55 minutes 42 seconds East a distance of 398.99 feet to a point; Thence running South 59 degrees 29 minutes 07 seconds East a distance of 172.33 feet to a point; Thence running South 11 degrees 09 minutes 07 seconds East a distance of 238.98 feet to a point; Thence running South 64 degrees 22 minutes 55 seconds West a distance of 181.06 feet to a point; Thence running North 12 degrees 56 minutes 15 seconds West a distance of 134.71 feet to a point; Thence running North 35 degrees 58 minutes 15 seconds West a distance of 529.27 feet to a point; Thence running North 24 degrees 59 minutes 31 seconds West a distance of 363.77 feet to a point; Thence running North 19 degrees 21 minutes 59 seconds West a distance of 111.61 feet to a point; Thence running North 33 degrees 38 minutes 00 seconds East a distance of 428.61 feet to a point; Thence running North 36 degrees 43 minutes 14 seconds East a distance of 207.00 feet to a point; Thence running North 66 degrees 13 minutes 34 seconds West a distance of 157.87 feet to a point; Thence running North 31 degrees 31 minutes 02 seconds West a distance of 162.88 feet to a point; Thence running North 04 degrees 05 minutes 17 seconds West a distance of 160.87 feet to a point; Thence running North 29 degrees 55 minutes 03 seconds West a distance of 261.98 feet to a point; Thence running North 63 degrees 58 minutes 35 seconds West a distance of 170.15 feet to a point; Thence running North 82 degrees 47 minutes 33 seconds West a distance of 209.22 feet to a point; Thence running South 47 degrees 35 minutes 23 seconds West a distance of 205.49 feet to a point; Thence running South 10 degrees 22 minutes 06 seconds West a distance of 177.15 feet to a point; Thence running South 00 degrees 33 minutes 15 seconds West a distance of 217.42 feet to a point; Thence running South 51 degrees 40 minutes 08 seconds West a distance of 195.18 feet to a point; Thence running North 71 degrees 41 minutes 13 seconds West a distance of 121.55 feet to a point; Thence running South 62 degrees 04 minutes 07 seconds West a distance of 108.22 feet to a point; Thence running North 75 degrees 42 minutes 03 seconds West a distance of

117.57 feet to a point; Thence running South 28 degrees 37 minutes 30 seconds West a distance of 76.61 feet to a point; Thence running South 36 degrees 29 minutes 26 seconds East a distance of 116.71 feet to a point; Thence running South 25 degrees 35 minutes 54 seconds West a distance of 166.66 feet to a point; Thence running South 25 degrees 32 minutes 03 seconds East a distance of 348.45 feet to a point; Thence running South 56 degrees 49 minutes 07 seconds East a distance of 124.39 feet to a point; Thence running South 28 degrees 17 minutes 26 seconds West a distance of 198.18 feet to a point; Thence running North 32 degrees 51 minutes 39 seconds West a distance of 118.50 feet to a point; Thence running North 88 degrees 08 minutes 42 seconds West a distance of 136.23 feet to a point; Thence running South 45 degrees 53 minutes 03 seconds West a distance of 248.97 feet to a point; Thence running North 05 degrees 18 minutes 02 seconds East a distance of 278.74 feet to a point; Thence running North 17 degrees 42 minutes 03 seconds West a distance of 241.24 feet to a point; Thence running North 08 degrees 50 minutes 29 seconds East a distance of 153.67 feet to a point; Thence running North 60 degrees 48 minutes 12 seconds West a distance of 65.37 feet to a point; Thence running South 64 degrees 55 minutes 37 seconds West a distance of 244.56 feet to a point; Thence running North 40 degrees 30 minutes 11 seconds West a distance of 33.07 feet to a point; Thence running North 27 degrees 18 minutes 11 seconds West a distance of 287.09 feet to a point; Thence running North 20 degrees 59 minutes 14 seconds West a distance of 220.03 feet to a point; Thence running North 65 degrees 19 minutes 32 seconds West a distance of 134.60 feet to a point; Thence running North 01 degrees 26 minutes 40 seconds West a distance of 157.43 feet to a point; Thence running North 29 degrees 10 minutes 20 seconds East a distance of 873.68 feet to a point; Thence running South 53 degrees 40 minutes 15 seconds East a distance of 370.53 feet to a point; Thence running North 81 degrees 56 minutes 16 seconds East a distance of 76.36 feet to a point; Thence running South 53 degrees 40 minutes 35 seconds East a distance of 42.96 feet to a point; Thence running North 71 degrees 04 minutes 58 seconds East a distance of 344.91 feet to a point; Thence running South 82 degrees 34 minutes 57 seconds East a distance of 504.95 feet to a point; Thence running South 88 degrees 20 minutes 51 seconds East a distance of 437.17 feet to a point; Thence running South 53 degrees 46 minutes 24 seconds East a distance of 1585.66 feet to a point and The Point of Beginning;

Said tract contains 74.94 acres (3,264,306 square feet).