

INTRODUCTION – PLANT MCMANUS ASH POND CLOSURE PERMITTING

1. OVERVIEW

In November 2016, the Georgia Environmental Protection Division (GA EPD) adopted amendments to the state’s Rules for Solid Waste Management (Georgia Rules), which added Chapter 391-3-4-.10, Coal Combustion Residuals (State CCR Rules). Chapter 391-3-4-.10 incorporates by reference the provisions contained in the United States Environmental Protection Agency (USEPA) Title 40 of the Code of Federal Regulations (CFR) §257 (40 CFR §257.60 through 40 CFR 257.107) (Federal CCR Rule). Section (9) of the State CCR Rules requires all CCR units in Georgia to obtain a permit. Pursuant to these requirements, Georgia Power Company (Georgia Power) has prepared this permit application for the closure of Ash Pond 1 (AP-1) at the Clifford B. McManus Power Plant (Plant McManus).

Plant McManus is located in Brunswick, Georgia on Crispen Island east of the Turtle River. The plant is surrounded by tidal marsh and is accessed by a single access road (Crispen Boulevard). There is one coal combustion residual (CCR) inactive surface impoundment (AP-1) on the Plant McManus site, currently being closed through CCR removal (Closure by Removal). In accordance with State CCR Rule 391-3-4-.10(2) which incorporates the definitions of the Federal CCR Rule (40 CFR § 257.53), AP-1 meets the definition of an Inactive Surface Impoundment, as AP-1 no longer received CCR on or after October 19, 2015 and still contained both CCR and liquids on and after October 19, 2015.

Georgia Power began to comply with the requirements of the Federal CCR Rule for closure of inactive impoundments prior to the effective date of the State CCR Rules. For AP-1, this consisted of initiating closure activities under a “3-year closure provision” provided in the 40 CFR §257.100(b)(5) which was part of the Federal CCR Rule published in April 2015 but was removed from the amended Federal CCR Rules published in August 2016. The amended Federal CCR Rule published a regulatory schedule for location demonstrations, design and operating criteria, groundwater monitoring and corrective action, closure and post-closure care for inactive surface impoundments which had initiated closure under the “3-year closure provision”. These amended timeframes apply to AP-1 because Georgia Power met the requirements for certain inactive CCR surface impoundments listed in 40 CFR 257.100(e)(1)(i) to (iii). Georgia Power has prepared this permit application for the closure by removal of AP-1 to address State CCR Rule criteria specified for an Inactive Surface Impoundment, as required in State CCR Rule 391-3-4-.10(9)(c)6.

2. SITE HISTORY

Plant McManus was once a two-unit, coal- and oil-fired, power generation facility. Construction of Unit 1 began in 1951 and the initial startup and commercial operation began in November 1952. Unit 1 was originally designed to operate as an oil-fired generator. Construction on Unit 2 began in 1957 and was declared commercial in 1959. Unit 2 was originally designed with coal as

the primary fuel. Unit 1 was converted to coal in 1960. In 1971, both Units 1 and 2 were converted to oil-fired and the use of coal ceased after 1972. In 1972, nine (9) diesel-fired simple cycle combustion turbines were installed and currently operate today. The former Units 1 and 2 have been retired and demolished as of 2017.

3. DESCRIPTION OF ASH POND AP-1

During its coal-fired operational history, Plant McManus utilized a single ash pond identified as AP-1. The ash pond was created in 1957 by constructing a dike comprised of compacted soil across an upland area north of the plant's main access road. According to Flood Insurance Rate Map (F.I.R.M.) No. 13127C, Panels 0206H and 0208H, last revised January 5, 2018, most of AP-1 lies within Special Flood Hazard Area AE (El. 9).

AP-1 occupies approximately 80 acres, and prior to commencement of closure activities, was estimated to contain approximately 550,000 cubic yards of ash. The southwestern area of AP-1 has transmission structures. Concurrent with scheduled maintenance of the transmission structures, the CCR was removed and the transmission towers and guy wires were reinstalled following CCR removal.

Currently, AP-1 is permitted to discharge under a National Pollutant Discharge Elimination System (NPDES) Individual Permit (Permit No. GA 00033794). The NPDES permitted outfall consists of a primary discharge spillway located at the northwestern pond corner.

4. SUMMARY OF CLOSURE ACTIVITIES PERFORMED TO DATE

The closure of AP-1 has been underway since the second quarter of 2016 and includes removal of CCR to an off-site Subtitle D landfill that is permitted by GA EPD to receive CCR. The notice providing the intent to initiate closure was filed with GA EPD on December 18, 2015.

AP-1 is being dewatered as required to facilitate CCR excavation, transportation, and placement in the receiving Subtitle D Landfill. Removal of the water is accomplished by various methods (pumping, ditching, de-watering wells). Prior to discharge, the water is treated by an on-site water treatment system in accordance with Georgia Power's Ash Pond Dewatering Plan (Dewatering Plan) approved by the Watershed Protection Branch of the GA EPD, and in accordance with the facilities NPDES permit.

AP-1 closure activities include removing all visible CCR and over excavating into the subgrade soils a minimum of six inches. After the CCR is removed and the subgrade soils have been over-excavated, fill material may be placed to restore the removal area to approximate pre-pond conditions. The existing compacted soil dike will remain in place and storm water will be allowed to pond within the removal area prior to discharge through the existing spillway. Following CCR removal, groundwater monitoring will continue for a minimum of 5 years to confirm that concentrations do not exceed the Groundwater Protection Standards established for constituents

required in State CCR Rule 391-3-4-.10(6)(b), which in turn reference the constituents listed in for CFR 257, Subpart D, Appendix III and IV of the Federal Rules.

At the commencement of closure activities, the ash pond was estimated to contain approximately 550,000 cubic yards of CCR. As of September 2018, an estimated 710,000 tons of CCR and underlying subgrade soils have been removed. Removal of the remaining CCR is anticipated to be complete in 2019.

5. ASH POND 1 CLOSURE BY REMOVAL CCR PERMITTING REQUIREMENTS

Georgia Power has prepared this permit application for the closure by removal of AP-1 to address State CCR Rule criteria specified for Inactive Surface Impoundment as required in State CCR Rules 391-3-4-.10(9)(b) and 391-3-4-.10(9)(c)6., as follows:

General CCR Unit Permit Application Requirements

- *391-3-4-.10(9)(b)1. - A completed form designated by EPD.*
The completed form is included in Exhibit 2 of Part A of the permit application.
- *391-3-4-.10(9)(b)2. - Written verification that the site conforms to all local zoning or land use ordinances.*
Zoning and Land Use Confirmation is included in Exhibit 4 of Part A of the permit application.
- *391-3-4-.10(9)(b)3. - Property boundary survey and legal description.*
The property boundary survey and legal description is referenced on the CCR Permit Boundary Survey included in the CCR Permit (Closure) Drawings in Exhibit 8 of PART A of the permit application
- *391-3-4-.10(9)(b)4. - Financial assurance mechanism meeting the criteria in Rule 391-3-4-.13.*
In compliance with applicable securities laws and regulations, Georgia Power will provide specific cost estimates for closure 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 cost estimates by EPD.
- *391-3-4-.10(9)(b)5. - A qualified professional engineer's certification that all application requirements have been met.*
The professional engineer's certification is included in Exhibit 3 of Part A of the permit application.

Inactive CCR Surface Impoundment Permit Application Requirements:

- *391-3-4-.10(9)(c)6. - Inactive Surface Impoundments. An owner or operator of an inactive surface impoundment shall complete closure of the CCR unit as specified in 40 CFR 257.100 no later than April 17, 2018 or submit a permit application for an existing CCR surface impoundment, including:*

Because AP-1 is being closed by removal, only *391-3-4-.10(9)(c)6(v)(I)* is required. This requirement is addressed in the Ash Pond Closure Plan in Exhibit 6 of Part A of this permit application.

Existing CCR Surface Impoundment Permit Application Requirements:

- *391-3-4-.10(9)(c)5.(i) - Location restriction demonstrations required by 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.*

The location restriction demonstrations will be completed and posted on the Georgia Power Company website under Environmental Compliance on or before April 16, 2020 as noted in Exhibit 1 of PART B.

- *391-3-4-.10(9)(c)5.(ii) - Description of the CCR surface impoundment's design and structural integrity criteria required by 40 CFR 257.71 and 40 CFR 257.73.*

The Plant McManus AP-1 surface impoundment is an unlined CCR surface impoundment and is being closed in accordance with *391-3-4-.10(7)(b)*.

The following documents have been prepared, placed in the facility's operating record, posted to Georgia Power's publicly accessible Internet site, and are included in Part B Exhibit 3 of this permit application, which address the requirements of 40 CFR 257.71 and 40 CFR 257.73:

- Liner Design Criteria per 40 CFR 257.105(f)(2), 40 CFR 257.106(f)(3), 40 CFR 257.107(f)(3)
- Documentation of Permanent Identification Marker (has been installed) per 40 CFR 257.105(f)(4)
- Initial Hazard Potential Classification Assessment per 40 CFR 257.105(f)(5), 40 CFR 257.106(f)(4), 40 CFR 257.107(f)(4)
- Emergency Action Plan per 40 CFR 257.105(f)(6), 40 CFR 257.106(f)(5), 40 CFR 257.107(f)(5)
- History of Construction per 40 CFR 257.105(f)(9), 40 CFR 257.106(f)(8), 40 CFR 257.107(f)(8)
- Initial Structural Stability Assessment per 40 CFR 257.105(f)(10), 40 CFR 257.106(f)(9), 40 CFR 257.107(f)(9)

- Initial Safety Factor Assessment per 40 CFR 257.105(f)(12), 40 CFR 257.106(f)(11), 40 CFR 257.107(f)(11)
- *391-3-4-.10(9)(c)5.(iii) - Description of how the CCR surface impoundment's operating criteria required by 40 CFR 257.80, 40 CFR 257.82, and 40 CFR 257.83 are met.*

A **Fugitive Dust Control Plan** is included in the Ash Pond Closure Plan in Part A of the permit application to address 40 CFR 257.80.

The hydrologic and hydraulic capacity requirements (inflow design flood control systems) included in Part B Exhibit 4 of the permit application:

- Inflow Design Flood Control System Plan per 40 CFR 257.82
- *391-3-4-.10(9)(c)5.(iv) - Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6). Explanation of how groundwater monitoring and corrective action criteria required by 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98 are met.*

A Groundwater Monitoring Plan has been prepared for the Plant McManus AP-1 surface impoundment in accordance with 40 CFR 257.90, 40 CFR 257.91, and 40 CFR 257.93 through 40 CFR 257.98 and is included in Exhibit 5 of Part A of this permit application.

- *391-3-4-.10(9)(c)5.(v) - Explanation of how closure and post-closure care requirements found in 40 CFR 257.101, 40 CFR.257.102, 40 CFR 257.103, and 40 CFR 257.104 will be met.*

This permit application includes a narrative description (Ash Pond Closure Plan) for the closure-by-removal of CCR for AP-1 in Part A of the permit application. In accordance with 391-3-4-.10(7)(g), which incorporates the post-closure requirements of 40 CFR 257.104(a)(2) of the Federal CCR Rule, CCR units being closed by removal of CCR are exempted from post-closure care requirements. Therefore, a Post-Closure Plan for AP-1 is not required and is not included in this permit application.

- *Rule 391-3-4-.10(9)(c)5.(vi) - Website address for information required to be posted by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.*

The information required to be posted and applicable to Plant McManus AP-1 is found in the Georgia Power Company website under Environmental Compliance:

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

EXHIBIT 2. APPLICATION FORMS

Send completed application to:
Environmental Protection Division, Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, GA 30354-3902

County: _____

Facility Name:

CCR Unit - Application for Solid Waste Handling Permit

(Please type or print)

I. APPLICANT INFORMATION

Owner's Name or Registered Corporation Name: [Georgia Power Company](#)

Facility Address: [1 Crispin Island](#)

Phone: [404-506-6505](#)

City: [Brunswick](#)

State: [GA](#)

ZIP Code: [31523](#)

Authorized Official: [Aaron D. Mitchell](#)

Title: [General Manager – Environmental Affairs](#)

Mailing Address: [241 Ralph McGill Blvd NE](#)

Phone: [404-506-6505](#)

City: [Atlanta](#)

State: [GA](#)

ZIP Code: [30308](#)

Email Address: gpcenv@southernco.com

Facility CCR Website(s):
(<https://www.georgiapower.com/CCRRuleCompliance>)

II. PROPERTY DETAILS: Complete below and attach a street or highway map indicating the site/facility location. Application must be accompanied by written zoning confirmation.

County: [Glynn](#)

City: [Brunswick](#)

Co-ordinates (in decimal degrees, near facility center): [31.218766 Latitude / -81.542236 Longitude](#)

Property for Processing/Disposal is: Owned Leased (please complete owner details below)

Property Owner (if leased):

Address:

Phone:

City:

State:

Zip:

III. APPLICATION TYPE:

New Permit

Major Modification to Existing Permit

Transfer of Permit

Other

IV. CCR UNITS: List all CCR units covered under this application

Inactive surface impoundment Ash Pond 1 (AP-1)

V. OWNERS: List all owners of the facility (defined as holding a 5% or greater share). All owners listed below must complete the Supplemental Form for O.C.G.A. 12-8-23.1(a)(3)(B)

Georgia Power Company

VI. SIGNATURE

Authorized Official's Signature: *A. S. Mitchell*

Date: *11/13/18*

Sworn to and subscribed before me this 13 day of November, 2018.

Notary Public: *Dana L. McLean*

My commission expires:





PLANT MCMANUS ASH POND 1

Location Map

**Georgia Power Company - Plant McManus
CCR Surface Impoundment Ash Pond 1**



Date: 10/30/2018

Send with completed application to:
 Environmental Protection Division, Solid Waste Management Program
 4244 International Parkway, Suite 104
 Atlanta, GA 30354-3902

County: _____

Facility: _____

Solid Waste Handling Permit Supplemental Form for O.C.G.A. 12-8-23.1(a)(3)(B)

(Please type or print)

I. INFORMATION: This form must be completed by each owner, or an authorized official of a corporation, holding a 5% or greater ownership share. This form must be notarized.

Name of Facility Applying for Solid Waste Handling Permit: Plant McManus

Owner's Name or Registered Corporation Name: Georgia Power Company

Authorized Official: Aaron D. Mitchell

Title: General Manager – Environmental Affairs

Mailing Address: 241 Ralph McGill Boulevard

Phone: (404) 506 - 6505

City: Atlanta

State: GA

ZIP Code: 30308

Email Address: gpcenv@southernco.com

A.	Yes	No
(1) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association intentionally misrepresented or concealed any material fact in the application submitted to the director?	<input type="checkbox"/>	X
(2) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association obtained or attempted to obtain the permit by misrepresentation or concealment?	<input type="checkbox"/>	X
(3) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted by final judgment, and all appeals have been exhausted, in the State of Georgia or any federal court of any felony involving moral turpitude within three years immediately preceding the application for a permit?	<input type="checkbox"/>	X
(4) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been convicted of any violations of any environmental laws punishable as a felony in any state or federal court within five years preceding the application for a permit?	<input type="checkbox"/>	X
(5) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association knowingly, willfully, and consistently violated the prohibitions specified in Code Section 12-8-30.7?	<input type="checkbox"/>	X
(6) Has the applicant, or if the applicant is a corporation, partnership, or association, has any officer, director, manager, or shareholder of five percent or more of stock financial interest in the corporation, partnership, or association been adjudicated in contempt of any court order enforcing any federal environmental laws or any environmental laws of the State of Georgia within five years preceding the application for a permit?	<input type="checkbox"/>	X

B. On a separate sheet, please provide detailed explanations for each question above answered "yes."

Signature: *Aaron D. Mitchell*

Date: *11/13/18*

Sworn to and subscribed before me this 13 day of November, 2018.

Notary Public: *Dana L. McLean*

My commission expires _____

