

# INTRODUCTION

## PERMIT APPLICATION, CCR LANDFILL

### PLANT BRANCH, GEORGIA POWER COMPANY

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#### Site Background

Plant Branch is located on approximately 3,200 acres of land off State Route 24 (US 441) on the northern shore of Lake Sinclair near Milledgeville and Eatonton, in Putnam County, Georgia. The site formerly operated as a coal-fired power plant that commenced power generation in 1965, ceased generating electricity prior to April 2015, and was decommissioned in 2019. Over the course of power generation at the facility, five ash ponds, identified as Ash Ponds A, B, C, D, and E, were utilized for storage. Ash Pond A, the first pond constructed at the site, was taken out of service in the late 1960s and has undergone closure by removal. Ash Ponds B, C, D, and E are currently not active and will also be closed by removal, specifically, by relocation of the CCR stored in these ponds to the proposed lined CCR landfill to be located on the Plant property.

#### New CCR Landfill Design and Permitting

In November 2016, GA EPD adopted amendments to the State’s Rules for Solid Waste Management referred to as the GA EPD CCR Rule (GA EPD 391-3-4-.10). These amendments require all CCR units in Georgia to obtain a state permit, including new landfills “that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities.” The new CCR landfill has been designed and will be constructed, operated, and closed in accordance with the GA EPD CCR Rule, as detailed in this permit application package.

The new CCR landfill site consists of approximately 173 acres, with the landfill waste footprint covering approximately 115.2 acres (the remainder of the area is for the construction of perimeter berms and stormwater/contact water/leachate ponds) and containing ten individual cells. The CCR landfill will be constructed, operated, and closed in phases. Material to be placed in the landfill cells will mainly consist of dewatered CCR from Ash Ponds B, C, D, and E, over-excavation foundation soils from the bottom of each pond after the CCR is removed, CCR-impacted debris and structures, and CCR water treatment filter cake materials. Note that, to the extent practical, organic materials will be segregated and processed through an organics management program including burning using an air curtain destructor (ACD), as described in the Organic Materials Management sections of the Closure Plans for Ash Ponds B, C, and D [Geosyntec, 2018a] and Closure Plan for Ash Pond E [Geosyntec, 2018b] submitted as part of the CCR permit application packages for closure of the referenced CCR units. The cells will be underlain by a liner system consisting of a composite liner lower component and leachate collection and removal system (LCRS) upper component. The presence of the composite liner is designed to isolate the CCR from the

surrounding environment. A final cover system will be installed over the filled cells to control and minimize infiltration of liquids into the CCR and prevent release of CCR into the environment. Closure will be performed in phases after a set of landfill cells have been filled to final grades.

### **Groundwater Monitoring System**

A Groundwater Monitoring Plan that describes the groundwater monitoring program for the CCR landfill, including sampling and analysis and well installation, has been prepared for the site to meet the requirements of 391-3-4-.10(6), in accordance with 391-3-4-.10(9)(c)1(vii).

Five existing wells within the Ash Pond E (AP-E) groundwater network will be used for monitoring groundwater conditions at the CCR Landfill. Three wells will be used to monitor upgradient conditions, and two will be designated for monitoring the side-gradient conditions. In addition to these wells, the CCR landfill groundwater monitoring system will consist of 24 new monitoring network wells located downgradient around the perimeter of the landfill, to be installed in phases.

Background groundwater conditions will be evaluated prior to and during construction of the CCR landfill to detect and quantify potential changes in groundwater chemistry. A minimum of eight independent samples for each new groundwater well will be collected and analyzed for 40 CFR §257, Subpart D, Appendix III and Appendix IV parameters to establish a background statistical dataset.

Following closure of the CCR landfill, GPC will conduct semi-annual groundwater monitoring for the post-closure care period (i.e., 30 years) pursuant to 40 CFR §257.95(h) for constituents listed in Appendix IV.

### **Closure and Post-Closure Plans**

Consistent with requirements for new CCR landfills under GA EPD CCR Rule 391-3-4-.10(7), in accordance with 391-3-4-.10(9)(c)1(viii), Closure Plan and Post-Closure Plan narratives were prepared for the Plant Branch CCR landfill and are included in this permit application. The Closure Plan describes the CCR landfill closure design and provides guidance on the sequence and steps necessary to close the landfill. The Post-Closure Plan describes inspection, monitoring, and maintenance activities that will be performed during the CCR landfill post-closure care period.

### **CCR Landfill Permitting Requirements**

GPC has prepared this permit application for the Plant Branch CCR landfill to address GA EPD CCR Rule criteria for new CCR landfills as required in GA EPD CCR Rule 391-3-4-.10(9)(b) and 391-3-4-.10(9)(c)1 as follows.

#### General CCR Unit Permit Application Requirements

- 391-3-4-.10(9)(b)1. - A completed form designated by EPD.

The completed form was included in the “*Plant Branch Site Acceptability Report for Proposed Landfill, Putnam County, Georgia*”, dated July 2019.

- *391-3-4-.10(9)(b)2. - Written verification that the site conforms to all local zoning or land use ordinances.*  
Zoning confirmation was included in the “*Plant Branch Site Acceptability Report for Proposed Landfill, Putnam County, Georgia*”, dated July 2019.
- *391-3-4-.10(9)(b)3. - Property boundary survey and legal description.*  
The property boundary survey and legal description are presented on Sheet 3 of the Permit Drawings, included in Part A of this 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, redacted cost estimates for closure and post-closure care are provided in Closure Plan and Post-Closure Plan and included in Part A of this Permit Application.
- *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 Part A of this Permit Application.

#### New CCR Landfill Permit Application Requirements

- *391-3-4-.10(9)(c)1(i) – Technical data and report to comply with location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.*  
Geosyntec, on behalf of GPC, prepared a Site Acceptability Report (SAR) that includes a summary of location restrictions and technical data illustrating the suitability of the proposed area for hosting a New CCR Landfill (i.e., compliance with location restrictions). The Site Acceptability Report for the CCR landfill was prepared by or under the direction of a qualified groundwater scientist and a professional engineer and submitted to GA EPD under separate cover. In addition, an addendum to the *Site Acceptability Report*, dated May 2021, following the receipt of the Site Limitations, dated 19 June 2020 and issued by the GA EPD, was prepared by or under the direction of a qualified groundwater scientist and a professional engineer and is included in Part B of this Permit Application.
- *391-3-4-.10(9)(c)1(ii) – Siting report that meets the criteria specified in “Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia”, Circular 14, Appendix A. The report shall be prepared by a qualified groundwater scientist.*  
Geosyntec, on behalf of GPC, prepared a Site Acceptability Report for the CCR landfill, in accordance with relevant sections of referenced GA EPD guidance document, with the intent

to permit the facility as a “moderate potential” industrial landfill as listed under Appendix A, Section 2 of Circular 14.

- *391-3-4-.10(9)(c)1(iii) – Plan and profile sheets of the disposal area. The plan and profile sheets shall include topographical maps at contour intervals of not more than five feet for the existing ground surface elevations, initial disposal area elevations, final disposal area elevations, and buffers.*

The plan and profile sheets of the existing site conditions, liner grading plan, and final cover grading plan are presented in the Permit Drawings included in Part A of this Permit Application. The contour intervals shown on the topographical maps do not exceed five feet.

- *391-3-4-.10(9)(c)1(iv) – Design of a liner and leachate collection system as required by 40 CFR 257.70.*

The design of the CCR landfill liner system (composite liner and LCRS) is presented in the Permit Drawings, included in Part A. Calculations supporting the design of the liner system are presented in Appendix D of the Engineering Report, included in Part B of this Permit Application.

- *391-3-4-.10(9)(c)1(v) – Quality assurance/quality control (QA/QC) plan for the construction of the liner system, leachate system, and the final cover system.*

The Construction Quality Assurance (CQA) Plan is presented in Part A of this Permit Application.

- *Operations plan that includes at a minimum:*

- *391-3-4-.10(9)(c)1(vi)(I) – A fugitive dust plan in compliance with 40 CFR 257.80.*
- *391-3-4-.10(9)(c)1(vi)(II) – A run-on and run-off control plan in compliance with 40 CFR 257.81.*
- *391-3-4-.10(9)(c)1(vi)(III) – Inspection requirements in compliance with 40 CFR 257.84.*
- *391-3-4-.10(9)(c)1(vi)(IV) - Identification of any uniquely associated wastes as listed in 40 CFR 261.4(b)(4), the estimated quantities generated by the facility, and a description of how these wastes will be managed.*
- *391-3-4-.10(9)(c)1(vi)(V) – Procedures for compliance with recordkeeping, notification, and posting of information to the internet as required by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.*
- *391-3-4-.10(9)(c)1(vi)(VI) – Procedures for updating all plans and assessments periodically as required by 40 CFR Part 257.*

The Operations Plan is presented in Part A of this Permit Application. The Stormwater and Contact Water Management Plan, which includes a facility run-on and runoff control plan, is also presented in Part A of this Permit Application.

- *391-3-4-.10(9)(c)1(vii) - Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).*  
The Groundwater Monitoring Plan is presented in Part A of this Permit Application.
- *391-3-4-.10(9)(c)1(viii) – A closure and post-closure plan in accordance with Rule 391-3-4.10(7).*  
The Closure Plan and Post-Closure Plan are presented in Part A of this Permit Application.

## References

Geosyntec Consultants. (2018a). “Closure Plan for Ash Ponds B, C, and D, Plant Branch” Prepared for Georgia Power Company, November 2018.

Geosyntec Consultants. (2018b). “Closure Plan for Ash Pond E, Plant Branch” Prepared for Georgia Power Company, November 2018.

## **EXHIBIT 2. APPLICATION FORM (GEORGIA EPD)**

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**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 – Plant Branch**

Facility Address: **1100 Milledgeville Road**

Phone: **404-506-6505**

City: **Milledgeville**

State: **GA**

ZIP Code: **31061**

Authorized Official: **Aaron D. Mitchell**

Title: **General Manager – Environmental Affairs**

Mailing Address: **241 Ralph McGill Blvd. NE, BIN 10221**

Phone: **404-506-6505**

City: **Atlanta**

State: **GA**

ZIP Code: **30308**

Email Address: **GPCENV@SOUTHERNCO.COM**

Facility CCR Website(s): **WWW.GEORGIAPOWER.COM**

**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: **Putnam County**

City: **Milledgeville**

Co-ordinates (in decimal degrees, near facility center): **N33.195393, W83.311634**

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

**New CCR Landfill**

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

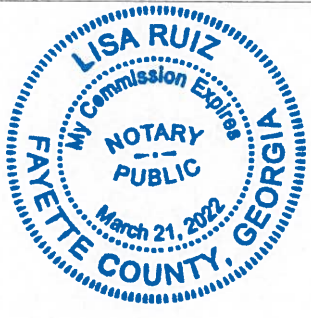
Authorized Official's Signature: *A. D. Mitchell*

Date: *8/9/19*

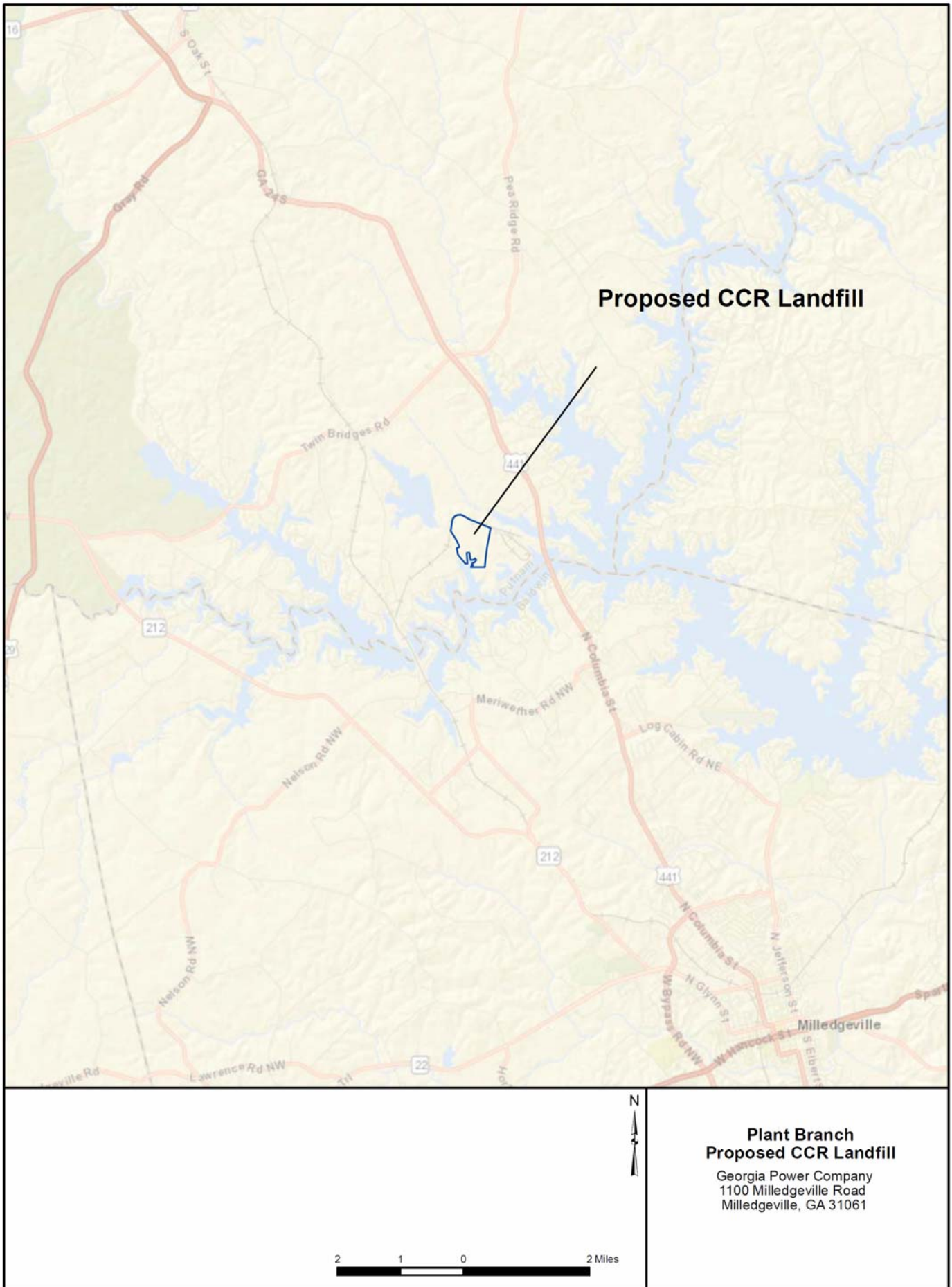
Sworn to and subscribed before me this *9<sup>th</sup>* day of *August*, 20*19*.

Notary Public: *LISA RUIZ* *L. Ruiz*

My commission expires: *3/21/2022*







**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: **Georgia Power Company – Plant Branch**

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, BIN 10221**

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"/> | <input checked="" type="checkbox"/> |
| (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"/> | <input checked="" type="checkbox"/> |
| (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"/> | <input checked="" type="checkbox"/> |
| (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"/> | <input checked="" type="checkbox"/> |
| (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"/> | <input checked="" type="checkbox"/> |
| (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"/> | <input checked="" type="checkbox"/> |

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

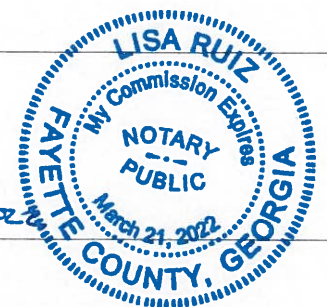
Signature: *Aaron D. Mitchell*

Date: *8/9/19*

Sworn to and subscribed before me this *9th* day of *August*, 20*19*.

Notary Public: *Lisa Ruiz*

My commission expires: *3/21/2022*



## **EXHIBIT 3. PROFESSIONAL ENGINEER CERTIFICATION**

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October 14, 2022

Mr. Richard Dunn  
Director  
Georgia Environmental Protection Division  
2 Martin Luther King Jr. Drive  
Suite 1456  
Atlanta, GA 30334-9000

**Re: Professional Engineer Certification  
Rule 391-3-4.10-(9)(b)5**

Dear Mr. Dunn:

Geosyntec Consultants, Inc. (Geosyntec) is an engineering firm employing professional engineers in good standing in accordance with State statutes, and the firm has experience in the design and construction of solid waste disposal facilities. Mehmet Iscimen, P.E., with Geosyntec, is the Engineer of Record for this permit application titled "Plant Branch CCR Landfill, Putnam County, Georgia". He is registered in the State of Georgia and has more than 18 years of experience in engineering.

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I do hereby certify that in my professional opinion the applicable requirements of the Georgia Environmental Protection Division Solid Waste Rule 391-3-4-.10 for Management of Coal Combustion Residuals have been met."*

**ATTEST:**

Geosyntec Consultants, Inc.

**Engineering Firm**

Mehmet Iscimen, P.E.

**Name of Professional Engineer**



**Signature**

10/14/2022

**Date**



## **EXHIBIT 4. LOCAL ZONING OR LAND USE CONFIRMATION**

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# PUTNAM COUNTY BOARD OF COMMISSIONERS



**DISTRICT ONE:**  
Gary P. McElhenney

**DISTRICT TWO:**  
DANIEL W. BROWN

**CHAIRMAN:**  
BILLY WEBSTER

**DISTRICT THREE:**  
B. W. "BILL" SHARP

**DISTRICT FOUR:**  
Jeffrey G. Wooten, Sr.

December 20, 2021

Mr. Chuck Mueller  
Branch Chief  
Georgia Environmental Protection Division  
2 Martin Luther King Jr. Drive, SE  
Suite 1054, East Floyd Tower  
Atlanta, GA 30334-9000

**Re: GA Power – Plant Branch  
Permit Application – Proposed CCR Landfill**

Dear Mr. Mueller:

The proposed Coal Combustion Residuals (CCR) Landfill located at 1100 Milledgeville Road, Milledgeville, Georgia associated with Georgia Power CCR surface impoundments complies with local zoning and land use ordinances.

Sincerely,

*Billy Webster*

Billy Webster  
Chairman  
Putnam County Board of Commissioners