CONSTRUCTION QUALITY ASSURANCE PLAN

Revision 1

ASH POND A, ASH POND 1, AND ASH POND 2
PLANT MITCHELL
DOUGHERTY AND MITCHELL COUNTY, GEORGIA

FOR

Georgia Power

January 2024

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Approved

Solid Waste Management Program

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1. INTRODUCTION

This Construction Quality Assurance (CQA) Plan covers the closure by removal of the Plant Mitchell Coal Combustion Residuals (CCR) surface impoundments known as Ash Pond A, Ash Pond 1 and Ash Pond 2. The project consists of removing CCR from the ash ponds (to be disposed at an off-site landfill or sold for beneficial reuse by others), backfilling and re-grading the former ash pond footprints to promote positive surface drainage and establishing permanent vegetative stabilization. The objective of this CQA Plan is to outline the CQA monitoring that will document that the ash pond closures were implemented in general accordance with the approved CCR Permit and Closure Plan.

2. CCR EXCAVATION AND REMOVAL CRITERIA

"CCR removal" refers to the process of verifying and documenting that CCR has been removed from the ash ponds. The ash ponds are known to contain a mixture of fly ash and bottom ash collectively referred to as CCR. The CCR will be excavated until native soils are encountered indicating that the CCR has been removed. In addition, a six-inch layer of soil will be removed below the verified CCR/soil interface. The CCR excavation and removal criteria are described below.

Visual Verification of CCR Removal Procedure:

GPC will engage the services of a Construction Quality Assurance (CQA) firm to monitor and document CCR removal according to the following procedure:

1. The CQA Engineer will prepare an ash pond map using a 100-ft grid spacing. Grid points will be assigned a unique alphanumeric label for reference and documentation of CCR removal.
2. CCR will be excavated until there is no visible CCR present. This surface will be referred to as the CCR/soil interface.
3. CQA personnel will observe the CCR/soil interface at the working face to confirm that visible CCR has been removed. Observations shall be made with reference to the ash pond grid map. Observations will include, but not be limited to, taking photographs and describing soil color based on the Munsell Soil Color Chart. CQA personnel will document observations in field logs or reports.
4. The CCR/soil interface surface will be surveyed.
5. The excavation will continue to a minimum 6 inches below the CCR/soil interface. This surface will be referred to as the bottom of excavation. Excavated soil will be disposed of at an off-site permitted landfill.
6. The bottom of excavation surface will be surveyed and confirmed to be a minimum of 6 inches below the CCR/soil interface.

Decontamination of the CCR unit will be completed by following a three-step process as detailed below:

- Visible CCR shall be removed from the unit and placed in an appropriately permitted solid waste facility and/or for beneficial reuse by others.

- A minimum of 6 inches of soil beneath the visible CCR footprint will be excavated and placed in an appropriately permitted solid waste facility. If CCR is observed below the initially established CCR/soil interface during the 6-inch over-excavation, the CQA Engineer will direct the contractor to continue excavation of CCR until visual verification indicates that all CCR has been removed. At that point, a minimum of 6 inches of soil beneath the visible CCR footprint will be excavated and placed in an appropriately permitted solid waste facility. Visual observations and use of the Munsell Soil Color Chart will be used to confirm that visible ash has been excavated from the former CCR footprint.
- Groundwater monitoring of the former CCR unit will be conducted for a minimum period of 5 years or continue until groundwater monitoring concentrations do not exceed the groundwater protection standards established pursuant to 40 CFR 257.95(h) for Appendix IV constituents.

3. EARTHEN FILL

Earthen fill is soil material which may be placed after CCR is removed to achieve final grades. Sources for earthen fill will originate from the ash pond dikes, existing cover soil (for Ash Pond A), existing on-site stockpiles *(labeled as the "Existing Stockpile" on the Closure Plan drawings)*, and appropriately permitted off-site sources. The existing on-site stockpile is composed of excess soil stockpiled during Ash Pond 2 construction. No new on-site borrow area will be established as part of this closure project. The fill will be placed and graded to promote positive drainage and support permanent vegetation to minimize erosion. The surficial soil layer shall be capable of supporting vegetation and may be evaluated through soil testing and amended as necessary to support a permanent vegetative cover.

4. KARST MITIGATION

If a cavity, drop-out or karst feature is observed within the permit boundary during CCR removal and ash pond closure, the feature will be evaluated to determine the appropriate mitigation procedure. The mitigation objectives will be to prevent CCR and surface water infiltration during ash pond closure by filling the feature to provide for a stable surface. The specific mitigation methods will depend on safety considerations, size, location, future use of the area, and tributary drainage area.

The specific mitigation procedure will be developed by a Professional Engineer (PE) based on observations and/or evaluation of the feature. The following general mitigation procedures are typical and will be conducted:

1. Assess location, size, and depth of the feature (safety protocols will be established for approaching the feature).
2. Survey feature location for future reference.
3. Divert surface water away from the feature through stormwater best management practice methods (e.g., diversion ditches, berms, pumping). Do not allow stormwater to temporarily pond in an isolated area.

4. Excavate debris, ash, loose soils, broken rock, etc. from the feature to approximately 2 ft below the bottom of the feature or as recommended by the PE for the specific mitigation procedure.
5. If no void, "throat", or water is observed after excavation; then backfill with compacted, low-permeability engineered fill consisting of clay or clay-sand-silt mixtures.
6. If a void, "throat", or water is observed after excavation; then backfill with a graded aggregate filter consisting of from the bottom up:
    a. 25 to 30% of the depth – N.S.A R-4 Riprap;
    b. Approximately 6-inch-thick layer of No. 57 Drainage Aggregate (over the Riprap);
    c. 25 to 30% of the depth – Graded Aggregate Base;
    d. To the ground surface – low-permeability engineered fill consisting of clay or clay-sand-silt mixtures.
7. Alternative karst mitigation procedures may be recommended by a PE with geotechnical experience registered in the state of Georgia and implemented with GA EPD approval. Such alternative procedures will be included in a minor modification and documented in a mitigation report. The minor modification and mitigation report will be submitted to GA EPD for review.
8. Regrade the area to promote positive surface drainage away from the feature. Reroute any planned drainage paths, structures, piping, etc. away from the feature.
9. Monitor the feature area for subsidence.

Karst mitigation repair shall be documented by the PE in accordance with the specific mitigation procedures above. GPC will submit a repair notification to GA EPD after completion of the repairs.