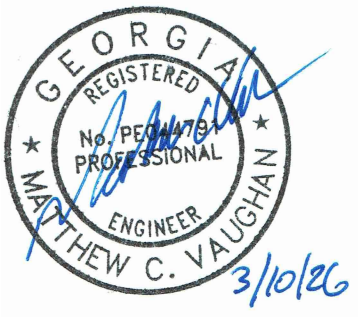
CONSTRUCTION QUALITY ASSURANCE PLAN FOR INACTIVE CCR UNIT

AP2-DAS

FORMER PLANT ARKWRIGHT
MACON-BIBB COUNTY, GEORGIA
FOR

Georgia Power

March 2026



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1. GENERAL

A. The Construction Quality Assurance (CQA) Plan documents the procedures used to provide CQA and Construction Quality Control (CQC) during the closure of Plant Arkwright Ash Pond 2 Dry Ash Stack (AP2-DAS). Closure construction efforts follow the procedures and requirements outlined in this CQA Plan. Any future work will also follow this CQA Plan. A Construction Certification Report will be submitted under separate cover.

B. The Georgia Environmental Protection Division (EPD) solid waste program will be notified of the closure for AP2-DAS. CQA will be provided by a third-party consulting engineering firm specializing in the inspection and testing of soils. Resumes and qualifications, including experience with projects of similar type, size, and complexity, will be provided to Georgia Power Company (GPC) for their review and approval.

C. The services of the CQC and CQA firm will be required during construction as described in this document.

D. The project team will consist of the following:

1. DESIGN ENGINEER: Responsible for providing interpretations and clarifications of the Contract Documents, reviewing and approving shop drawings, authorizing minor variations in the work from the requirements of the Contract Documents, and rejecting defective work. The DESIGN ENGINEER will be a registered professional engineer in Georgia.

2. CQA ENGINEER: Responsible for implementing the quality assurance requirements as stated in the Closure Drawings, this CQA plan and the project objectives; verifying basic data as reasonable and complete; outlining procedures to process data; developing statistical procedures for the analysis of test data; and preparing quality assurance memoranda and quality assurance reports. The CQA ENGINEER will be paid for and report to GPC or Southern Company Services (SCS). This CQA ENGINEER will be a registered professional engineer licensed in Georgia. Reference to the CQA ENGINEER, for the purpose of this document, will include the CQA ENGINEER or his representative.

3. CQC ENGINEER: Responsible for construction quality control monitoring, testing, and documentation for all field work performed during the construction of the facility. The CQC ENGINEER will be paid for and report to the Contractor or GPC/SCS. This CQC ENGINEER will be a registered professional engineer licensed in Georgia. Reference to the CQC ENGINEER, for the purpose of this document, will include the CQC ENGINEER or his representative.

4. ENGINEERING TECHNICIANS: Responsible for field observations, testing, and inspection. ENGINEERING TECHNICIANS will be assigned to the project as deemed necessary by the CQA ENGINEER or CQC ENGINEER and will be responsible to the CQA ENGINEER or CQC ENGINEER. The CQA ENGINEER, CQC ENGINEER, ENGINEERING TECHNICIAN, CQA ENGINEER'S representative or the CQC ENGINEER'S representative will be on-site during all construction activities. Initial evaluation of various soil types by CQA ENGINEER or CQC ENGINEER during construction will be largely visual; therefore, the CQA ENGINEER, CQC ENGINEER, and all ENGINEERING TECHNICIANS must be experienced with visual-manual procedure for soil description and identification (ASTM D2488). The engineering technicians will report to the CQA engineer firm or CQC engineer firm that has assigned them to the project.

5. AS BUILT SURVEYOR: As-built certification surveys will be performed by a registered professional land surveyor licensed in Georgia on the components of the final cover system.

2. CCR EXCAVATION AND REMOVAL

Georgia Power 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 a 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 grid map. Observations will include, but not be limited to, taking photographs and describing soil color. Soils will be described and identified in accordance with ASTM D2488. CQA personnel will document observations in field logs or reports.
4) The CCR/soil interface will be surveyed at grid points.
5) The excavation will continue to a minimum 6 inches below the CCR/soil interface. If rock is encountered prior to reaching the 6-inch depth, excavation will be halted and considered complete. This surface will be referred to as the bottom of excavation. Excavated soil will be disposed of at a permitted landfill that is approved to accept CCR.
6) The bottom of excavation surface will be surveyed and confirmed to be a minimum of 6 inches below the CCR/soil interface except in areas where rock is encountered within 6 inches of the CCR/soil interface. A topographic map will be provided for this surface.

Earthen fill (where required) will be placed after the CCR is verified removed following the above process by the certifying P.E. as necessary to achieve final grades. Sources for earthen fill may include on-site or off-site soils. Any offsite borrow will come from a source with proper permit credentials. 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.

3. STRUCTURAL FILL

A. GENERAL

The CQC ENGINEER or his representative will observe and document all grading activities and test the placement and compaction of in-situ materials and structural fill. The CQA ENGINEER is responsible for certifying that the materials and construction were in accordance with the Closure Drawings and this CQA Plan.

B. SUBGRADES

During construction, conformance and performance testing of the subgrade soil materials will be performed by the CQC ENGINEER. The CQC ENGINEER will monitor and document proof rolling of areas that are to receive structural fill. Areas of proof rolling or compacted fill that do not conform to this CQA Plan will be delineated and reported to the Contractor. The CQC ENGINEER will document that these areas

are reworked by the Contractor and retested until passing results are achieved. The CQA ENGINEER will monitor and document if the subgrade is damaged by excess moisture (causing softening), insufficient moisture (causing desiccation and shrinkage), or by freezing. When such conditions exist, the CQA ENGINEER will evaluate the suitability of the subgrade by one or more of the following methods:

1) Moisture / density testing;
2) Continuous visual inspection during proof rolling; or
3) Other test methods identified herein.

The CQA ENGINEER will inform the Contractor of the results and will document when the Contractor repairs areas damaged as indicated above. The CQA ENGINEER will retest the repaired areas until passing results are achieved.

C. CONFORMANCE TESTING

The CQC ENGINEER will observe and test the structural fill to ensure uniformity and conformity to the requirements of this CQA Plan. For fill materials obtained from approved borrow areas, visual inspections and conformance tests will be performed by the CQC ENGINEER prior to the materials being used.

Structural earth fill should generally consist of sandy clays (CL), clayey silts (ML), clayey sands (SC), and clayey to silty sands (SC/SM). Unsuitable soils for the general fill are classified as organics, peat, highly plastic clays, and soils that contain roots, logs, wood, or any decomposable materials.

The structural fill will not contain any roots (or other organic matter), clay clods, rocks greater than 3 inches in largest dimension, or any other deleterious debris.

Prior to receiving structural earth fill, the foundation area will be scarified by harrowing or other suitable means. Structural fill materials will be placed in uniform layers of eight inches, nominal thickness, loose measurement, for one foot beyond the full width of the fill on each side. The thickness of each layer will be kept uniform with the necessary grading equipment. Upon completion of compaction, the slopes will be cut back to the final slope. Particular care will be used to obtain the required compaction along the edges of the fill slopes. The compacted surface of each lift will provide a proper bonding surface for the succeeding layer. Prior to hauling off-site borrow area materials to the project site, testing will be performed on the material. The Contractor will notify the CQA ENGINEER at least three weeks prior to hauling activities so soil samples may be collected for analyses. No off-site borrow materials may be brought onto the site until the testing results have been reviewed by the CQA ENGINEER and the borrow source approved.

D. TEST METHODS AND FREQUENCY

All testing will be conducted in accordance with this CQA Plan. The field-testing methods used to evaluate the suitability of soils during their installation will be performed by the CQC ENGINEER in accordance with current ASTM test procedures indicated in Table 1. The CQC ENGINEER will be responsible for documenting and reporting test results. Soil testing will be performed to determine soil type (Unified Classification), grain size distribution, moisture content, Atterberg Limits, and moisture-density relationships. Documentation and reporting of the test results will be the responsibility of the CQC ENGINEER. Testing will be conducted during the course of the Work. The minimum construction testing frequencies are presented in Table 1. The frequency may be increased at the discretion of the CQA ENGINEER or if variability of the materials is observed. Sampling locations will be selected by the CQC ENGINEER. The location of routine in-place density tests will be determined using a non biased sampling approach. A special testing frequency will be

used at the discretion of the CQA ENGINEER when visual observations of construction performance indicate a potential problem.

Table 1. Testing Requirements

Minimum Testing Requirements for Structural Fill	
Test	**Frequency**
Proof Roll	Prior to placement of earth or ash fill on foundation area
Laboratory Moisture-Density/ASTM D698	Observed change in soil consistency for earth and ash fill (borrow)
Liquid Limit, Plastic Limit, Plasticity Index/ASTM D4318	Observed change in soil consistency for earth fill (borrow
Sieve Analysis/ASTM D422	Observed change in soil consistency for earth and ash fill (borrow)
Field Density and Moisture Content/ Sand Cone, ASTM D1556 Drive Cylinder, ASTM D2937 Nuclear, ASTM D6938	1 test / 40,000 sf / lift (approx. 1,000 CY of earth or 1,100 CY of ash) on a maximum 200-ft x 200-ft grid and one test per lift per 200 linear feet of side slope, minimum one test for each lift per each day

E. COMPACTION

The CQC ENGINEER will confirm that structural fill conforms to compaction requirements described in Table 2.

Table 2. Compaction Requirements

Minimum Testing Requirements for Structural Fill		
Description	**Required % Compaction Standard Proctor (ASTM D698)**	**Frequency**
Structural Earth Fill	96	-1% to +3% of Standard Proctor optimum moisture

If the moisture content is too low, the moisture content will be adjusted to within the above limits prior to compaction. Moisture adjustment will be achieved by sprinkling and disking sufficiently to bring the moisture content within the specified range. Sprinkling and harrowing of the layer will be done after deposition, but before compaction. If the moisture content is too high, the Contractor will be permitted to disk in place or stockpile and disk the fill material to promote drying to bring it back within the allowable moisture range. Areas of proof rolling or compacted fill that do not conform to this CQA Plan will be delineated and reworked/retested by the Contractor until passing results are achieved.

4. TOPSOIL & VEGETATION

A. GENERAL

The CQC/CQA ENGINEER will verify that topsoil is placed and vegetated in accordance with the approved plans and this CQA Plan.

B. CONFORMANCE TESTING

It will be necessary for the CQC ENGINEER to observe topsoil to ensure it is uniform and conform to the requirements in the CQA Plan and the Closure Drawings. For fill materials obtained from borrow areas, visual inspections and conformance tests will be performed by the CQC ENGINEER in accordance with the CQA Plan prior to the materials being used. CQC personnel will observe soils for deleterious materials (e.g., roots, stumps, rocks, and large objects). Prior to hauling off-site material to the project site, testing will be performed on the material. The Contractor will notify the CQC Engineer at least three weeks prior to hauling activities so soil samples may be collected for analyses. No off-site borrow materials may be brought onto the site until the testing results have been reviewed by the CQA ENGINEER and the borrow source approved.

C. COMPACTION

The CQC ENGINEER will confirm that the topsoil is placed and tracked in to support establishment of vegetation.

D. VEGETATION

Vegetation will be established in accordance with the Closure Plan. If the use of fertilizers or other soil amendments is warranted, the Contractor will follow the Fertilizer Requirements in the Closure Plan.

5. CERTIFICATION

The CQA ENGINEER will provide certification that structural fill areas, access roads, ditches, and other associated ancillary facilities, if needed, for AP2-DAS were constructed according to the Closure Drawings and this CQA Plan. Said certification will have the seal of a professional engineer registered in the State of Georgia.

Additionally, an as-built certification survey of final restoration grades after CCR removal shall be performed by a registered professional land surveyor licensed in Georgia and provided to GA EPD prior to or included with the Certification of Closure Report.