

CONSTRUCTION QUALITY ASSURANCE (CQA) PLAN

PLANT MCINTOSH EXISTING ASH POND 1 (AP-1)
COAL COMBUSTION RESIDUAL (CCR)
SURFACE IMPOUNDMENT
EFFINGHAM COUNTY, GEORGIA

FOR



Georgia
Power

November 2019

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MANAGEMENT PROGRAM



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11/19/2019



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1. CQA PLAN

This Construction Quality Assurance (CQA) Plan covers the closure by removal of coal combustion residuals (CCR) from the Plant McIntosh Existing Ash Pond 1 (AP-1) CCR Surface Impoundment. The project consists of removing CCR from the ash pond (to be disposed at a CCR-permitted landfill or sold for beneficial reuse), 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 closure is implemented in general accordance with the following procedures.

1.1 Responsibility and Authority

1.1.1 *Permitting Agency (Georgia EPD)*

Georgia Environmental Protection Division (EPD) has the regulatory authority for approval or denial of state environmental permits required for the facility. The solid waste program for Georgia EPD will have the authority to review all CQA/CQC program documentation prior to, during, and after construction to confirm that the program was followed, and the facility was constructed as intended and is in conformance with the CQA Plan.

1.1.2 *Facility Owner/Operator (Georgia Power)*

Georgia Power Company (Georgia Power) is responsible for the design, construction, and operation of the facility in compliance with the regulatory requirements of the state of Georgia and Georgia EPD. Georgia Power has the authority to select and dismiss organizations charged with design, CQA/CQC, and construction activities. Georgia Power also has the authority to accept or reject the materials and/or workmanship of the construction contractors.

1.1.3 *Consulting Engineer Support (Design Engineer)*

The Design Engineer has the primary responsibility for designing the facility to meet the design and operational requirements of Georgia EPD and Georgia Power; as well as preparing the detailed design and construction documents.

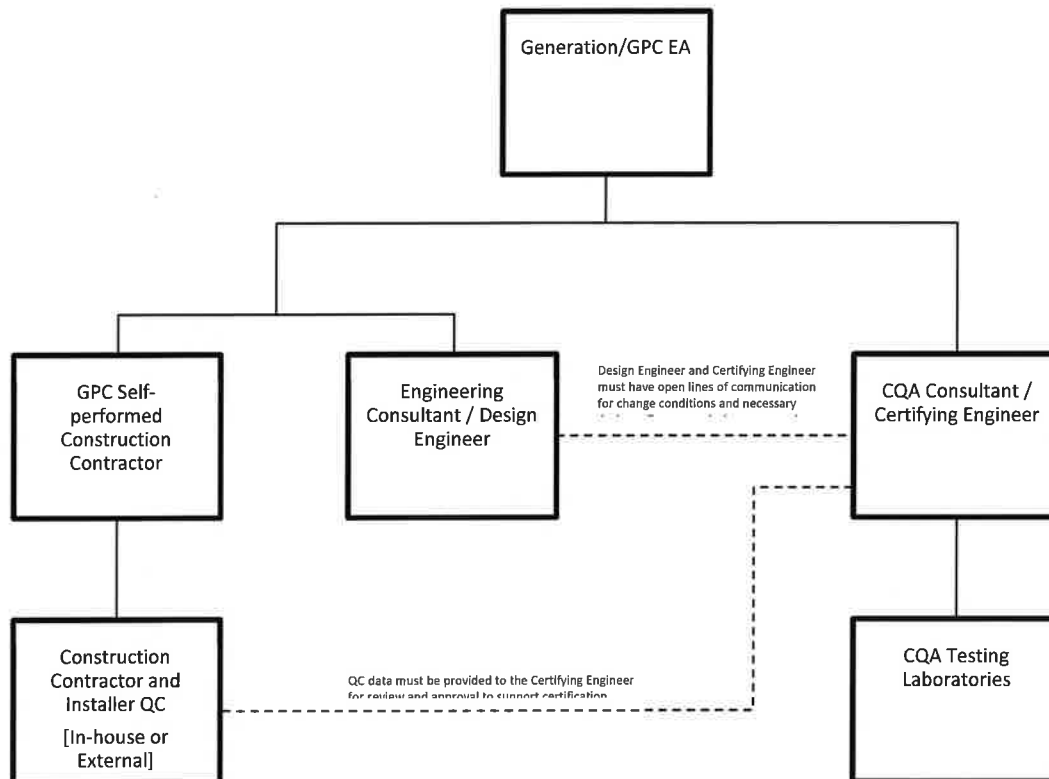
1.1.4 *CQA Consultant (Certifying Engineer)*

The Certifying Engineer responsibilities include implementation and administration of the approved CQA Plan, review of the contractor's Quality Control (QC) Plan, and providing final certification that the facility has been constructed in accordance with the plans, specifications, and approved CQA Plan.

1.1.5 *Construction Contractors*

Construction Contractors have the responsibility to construct the facility in strict accordance with the construction plans, specifications, and approved modifications. Construction Contractors will implement the QC Program for purposes of monitoring their construction. The CQA Plan presented in this document provides the minimum standards for the acceptance of work.

1.2 General QA/QC Organization Chart



1.3 CQA Personnel

1.3.1 Certifying Engineer Responsibilities

The Certifying Engineer will be assigned the responsibility for implementation of all aspects of the CQA Plan. The Certifying Engineer shall be a licensed professional engineer in the State of Georgia. The officer's responsibilities include:

- Reviewing design criteria, plans, and specifications for clarity and completeness with the Design Engineer, owner, and contractor;
- Educating and training CQA personnel on requirements and procedures outlined in the program;
- Scheduling and coordinating CQA activities;
- Performing regular calibration and maintenance of test equipment;
- Confirming that test data are accurately recorded and maintained;
- Verifying that raw test data are properly recorded, reduced, summarized, and interpreted;
- Identifying defective construction and verifying corrective measures;
- Recommending acceptance or rejection by the owner of work completed by the contractor; and
- Preparation of the CCR Removal Certification Report.

1.3.2 CQA Technicians

The CQA Technicians shall possess adequate formal training and sufficient practical experience to execute the observation and testing activities required. The CQA Technicians will report directly to the Certifying Engineer.

1.4 CCR Excavation and Removal Criteria

“CCR removal” refers to the process of verifying and documenting that CCR has been removed from the ash pond. 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.

1.5 Visual Verification of CCR Removal Procedure:

The CQA Consultants will observe and document CCR removal according to the following procedure:

1. The Certifying 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 consultants will observe the CCR/soil interface at the working face to confirm that all 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 per use of the Munsell Soil Color Chart. CQA consultants will document observations in field logs or reports.
4. The CCR/soil interface surface will be surveyed.
5. The excavation will continue with the removal of a minimum of 6 inches below the CCR/soil interface. This surface will be referred to as the bottom of excavation. Excavated soil will be disposed of into a permitted landfill.
6. The bottom of excavation will be surveyed and confirmed to be a minimum of 6” below the CCR/soil interface.

1.6 Earthen Fill

Earthen fill is soil material which may be placed after CCR is removed to achieve final grades. Soils utilized in the closure of AP-1 will originate from the AP-1 dike embankments and, if necessary, appropriately permitted off-site sources. No new on-site borrow area will be established as part of this 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.

1.7 Construction Certification Report

At the completion of CCR removal activities, the Certifying Engineer will provide Georgia Power with a final Certification Report for submittal to Georgia EPD. This report will acknowledge that the work has been performed in compliance with the Project Documents, Solid Waste Permit and the Georgia Rules for Solid Waste Management.