

Response to Comments
Draft Handling Permit for Coal Combustion Residuals
Plant Hammond AP-1

In accordance with the Georgia Environmental Protection Division (EPD) public participation policy, the draft permit for Georgia Power's Plant Hammond Existing CCR Surface Impoundment AP-1 to remove coal combustion residuals (CCR) was posted on EPD's website on March 18, 2020. This initiated the comment period, which remained open until May 18, 2020 (60 days). EPD received approximately 202 comments.

A summation of the comments is provided below along with EPD's responses.

- 1. Comment:** "EPD should not be considering permits that allow permanent, unlined storage at this very same power plant and others like it across the state. EPD must require full excavation of all coal ash ponds and lined storage of all coal ash in Georgia."

EPD Response: The Plant Hammond AP-1 draft permit is for the removal of ash, and as a result, this comment is not applicable to this permit.

- 2. Comment:** "[We] request that [EPD] hold public meetings in communities close to the facilities being permitted. Capping these contaminants in place will have lasting, and likely worsening, impacts for private property owners and communities across the state. It is essential that citizens in the impacted communities are given the opportunity to fully participate in this permitting process. If the coronavirus pandemic makes this difficult in the future, [we] urge [EPD] to hold virtual town halls and invite the community near the proposed coal ash storage facility."

EPD Response: EPD agrees that public participation is a necessary tenet of the Solid Waste Handling Permitting process. EPD will extend the comment period to sixty (60) days for any future draft permits for Closure-In-Place ash ponds. EPD will also host public participation hearings in association with future CIP draft permits and will issue a notice, at least two weeks in advance, of when and where those meetings are to take place.

- 3. Comment:** "Final Grade will not meet the required two-foot separation from the water table. The Draft Permit requires that, after excavating CCRs and subsoil, the finished surface "shall be a minimum of two (2) feet above the seasonal high potentiometric surface." Neither the Closure Plan nor the Groundwater Monitoring Plan associated with the Draft Permit provided the elevation of the "seasonal high" groundwater. As such,

Georgia Power has not demonstrated compliance with that portion of the Draft Permit. The finished grade elevation seems to be based upon an arbitrary value.”

EPD Response: *Permit Condition 6. states “Grading of the former ash pond will be completed as depicted in the Final Grade Plan included with the Closure Drawings, and in such manner that at the time of completion of grading activities the finished surface shall be a minimum of two (2) feet above the seasonal high potentiometric surface as approved by the Division.” Groundwater monitoring data will be evaluated prior to completion of activities and the seasonal high groundwater elevation determined. Any changes to the closure design necessary to meet this permit condition will be made as a modification to the permit documents.*

4. **Comment:** “Georgia Power should be required to identify the depth to which it will excavate to ensure all CCR material is removed and to specify the colors of CCR materials and the soils expected underneath them so that the proposed use of the Munsell Soil Color Chart can properly assist in the field with assessing the proper limits of excavation.”

EPD Response: *Georgia Power has identified the depth of waste as a part of their Closure Drawings. Additionally, the Construction Quality Assurance CQA Plan, which is a part of the permit and has been reviewed by EPD, provides a detailed description of the procedures that will be used to verify CCR removal. In the CQA Plan, a Professional Engineer licensed to practice in the State of Georgia will be required to monitor, document and certify CCR removal in accordance with the following procedures:*

- A. *The Certifying/Professional 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.*
- B. *CCR will be excavated until there is no visible CCR present and native soils are encountered indicating that the CCR has been removed. This surface will be referred to as the CCR/soil interface.*
- C. *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.*
- D. *The CCR/soil interface surface will be surveyed.*
- E. *The excavation will continue with the removal of a minimum of 6 inches of soil below the verified CCR/soil interface. Excavated soil will be disposed of into a permitted landfill.*

- F. *The bottom of excavation will be surveyed and confirmed to be a minimum of 6” below the CCR/soil interface.*

Upon completion of CCR removal, a CQA Certification Report documenting the removal will be submitted to Georgia EPD. The report will acknowledge that CCR removal has been performed in compliance with the Project Documents, the depth of waste demonstrated in Georgia Power’s Closure Drawings, the Solid Waste Permit, the Georgia Rules for Solid Waste Management and document the color changes encountered at the ash-soil interface as measured by the Munsell Soil Color Chart.

5. **Comment:** “The Draft Permit’s proposed allowance of using fill material from the existing perimeter dike to regrade the excavated area may result in the recontamination of the filled area.” “Instead of using the divider dike material, Georgia Power should be required to use clean clay and low-permeability fill soils from an off-site borrow source.”

EPD Response: Georgia Power has included methods in their Closure Drawings and CQA plan to ensure that the material to be used as fill will not contain CCR and this process will be monitored, documented, and certified by a professional engineer. EPD will conduct an on-site inspection of AP-1 to verify that all visible ash has been removed prior to any backfilling using soil from the perimeter dike. The CQA Plan indicates that soils utilized as an earth fill will originate from the AP-1 dike embankments and, if necessary, appropriately permitted off-site sources.

6. **Comment:** “The Groundwater well system fails to ensure that groundwater will be adequately monitored. The fundamental purpose of a groundwater monitoring well system is to detect contamination due to leakage from disposal areas and to enable corrective actions in a timely manner. The monitoring system should be an early warning prior to contamination flowing away from the disposal area. A preliminary review of the groundwater monitoring system indicates that some wells are likely incapable of detecting the highest concentrations of contaminants because the well screens have been constructed too deep within the uppermost aquifer. Adequate monitoring is especially important, since even if all CCR materials are fully excavated and the site is regraded with only clean fill. The excavation will likely improve groundwater over time; however, contaminated groundwater will remain after closure. Also, CCR constituents that have migrated from the leaking impoundment are in the underlying soils in the direction of groundwater flow. Such subsoils are not, under the Closure Plan, necessarily going to be removed. Accurate groundwater monitoring will accordingly be necessary to determine whether or not the site has been sufficiently decontaminated.”

EPD Response: *The groundwater monitoring system meets both federal and state requirements and has been designed to accurately represent the quality of groundwater passing the waste boundary of the CCR unit. Wells have been installed at sufficient depths to ensure consistent groundwater samples can be obtained through times of both high and low groundwater conditions.*

AP-1 will be dewatered and closed by removal of the CCR in accordance with 40 CFR 257.102(c) which states “Closure by removal of CCR. An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to § 257.95(h) for constituents listed in appendix IV to this part.” Per 1.14 of the closure plan, a demonstration will be submitted to EPD in satisfaction of the rule requirements that a sufficient monitoring network is in place and that will include evaluation criteria that may include but not limited to additional sampling, analysis, calculations, and/or modeling at this time to demonstrate compliance.

7. **Comment:** “Georgia Power should be required to complete predictive modeling. to determine when groundwater can be expected to improve to background conditions or pre-filling conditions; or when groundwater quality will meet EPA and Georgia EPD water quality standards.”

EPD Response: *EPD does not agree that predictive modeling information is required to evaluate the monitoring system of this particular permit application, based on the substantive information provided in the permit application process, EPD’s technical review, the future excavation and removal of CCR wastes at this site, and requirements outlined in the Closure Plan and the rules.*

8. **Comment:** Amend the cover pages of the Hammond AP-1 and AP-2 Permits, respectively, to include the language underlined below, which changes should be reflected in all future CCR permits:

“All statements in the application and supporting evidence, information, and data submitted to the Environmental Protection Division of the Department of Natural Resources have been evaluated, considered and relied upon in the issuance of this permit.

This permit is now in effect; however, under Georgia law it is subject to appeal for 30 days following issuance, and is subject to modification or revocation on evidence of noncompliance with: (i) any provision of the Act or of the Rules promulgated pursuant thereto; or (ii) with any representation made in the above mentioned application or the statements and supporting data entered therein or attached thereto; or (iii) with any condition of this permit.”

EPD Response: *EPD concurs and will make these changes.*

Additional EPD Note: The final Closure Plan was revised in May of 2020 to reflect the most current and accurate closure cost estimate available. This cost estimate and associated financial assurance was provided to EPD in addition to the regulatorily required information to obtain a permit and maintain compliance with State and Federal CCR rules.