

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

In accordance with the Georgia Environmental Protection Division (EPD) public participation policy, the draft permit for Georgia Power's Plant McIntosh Ash Pond 1 to remove coal combustion residuals (CCR) was posted on EPD's website on November 26, 2019. This initiated the comment period, which remained open until December 26, 2019 (30 days). EPD received comments from the following:

- Southern Environmental Law Center
- Sierra Club

The comments are provided below along with EPD's responses.

1. Comment: Due to the importance of the issues governing the methods by which coal ash will be permanently disposed of, maintained, and monitored throughout Georgia, we suggest the revisions set forth in underlined type below, to avoid potential ambiguities concerning the circumstances subjecting the McIntosh CCR Permit (or other permits) to modification or revocation, and to render the proposed permit more consistent with Georgia's Solid Waste Management Rules:

“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. Additionally, consistent with the Solid Waste Management Rules, this permit is subject to modification or revocation on evidence that the applicant or the owner or operator has intentionally misrepresented or concealed any material fact in the application submitted to the Director, or attempted to obtain the permit by misrepresentation or concealment.”

EPD Response: EPD agrees with the comment to add “in the application” and “evidence, information, and” into the next to last paragraph of the permit cover page. Adding “in the application” would clarify that the permit application is the document being referenced and would make it consistent with the statement made in the last paragraph of the permit cover page which states “or with any representation made in the above

mentioned application”. Adding “evidence, information, and” is more descriptive of the supporting materials that EPD receives along with the permit application.

EPD also agrees with inserting the numerals “(i) through (iii) in the last paragraph. The intent is noncompliance with any of the conditions mentioned could subject the permit to modification or revocation. The revision would clarify the intent.

Related to the additions to the last page of the permit cover, EPD does not believe that they are necessary. The Solid Waste Management Act and Rules have specific conditions that allow the EPD Director to suspend, modify, or revoke any permit and these conditions are more expansive than those proposed. The conditions are found in the Solid Waste Management Act, O.C.G.A. §12-8-24(e)(B) and (C), and the Georgia Rules for Solid Waste Management, Chapter 391-3-4-.02(2). Specifically, in the Rules, the Director “may modify or revoke any permit issued pursuant to O.C.G.A. 12-8-24 if the holder of the permit is found to be in violation of any of the permit conditions; or if the holder of the permit fails to perform such activity in accordance with the approved plan; or if such activity creates a threat to human health or the environment”. The Act states “The director may suspend, modify, or revoke any permit issued pursuant to this Code section if the holder of the permit is found to be in violation of any of the permit conditions or any order of the director or fails to perform solid waste handling in accordance with this part or rules promulgated under this part”. The suggested addition of the last sentence in the comment above does not make the permit more consistent with the Rules or Act.

2. 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:

1. 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.
2. 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.
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 of soil below the verified CCR/soil interface. 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.

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.

3. Comment: The Draft Permit's proposed allowance of using fill material from existing impoundment separator dikes to regrade the excavated area is likely to result in the recontamination of the filled area. Georgia Power should be required to use clean clay and low permeability fill soils.

EPD Response: Georgia Power has included in their Closure Drawings plans 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 internal separator dikes. 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. The History of construction in Part B of the permit application documents describes the dikes as generally homogenous structures comprised of low permeability compacted fill.

4. Comment: The groundwater well system used by Georgia Power for its permit application for closure-by-removal does not meet the 1991 EPD technical requirements, and therefore the Company is unable to provide assurance that its proposed excavation will adequately remove contaminants from groundwater. Monitoring well locations are likely resulting in mistaken assessments of upgradient versus downgradient groundwater contaminant concentrations. Adequate monitoring is especially important, as the Draft Permit discusses not just excavation but decontamination. Even if all CCR materials are fully excavated and the site is regraded with only clean fill, contamination of the groundwater may remain. CCR constituents that have migrated from the leaking impoundment are likely 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: While the referenced 1991 Manual for Groundwater Monitoring still contains relevant information regarding the placement of monitoring wells, EPD considers EPA Region 4 Science and Ecosystem Support Division (SESD) guidance and procedures (Design and Installation of Monitoring Wells, dated January 2013, and Groundwater Sampling Operating Procedure, dated April 2017) as current guidance for groundwater monitoring at permitted solid waste facilities in Georgia.

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 will include evaluation criteria that may include but not limited to additional sampling, analysis, calculations, and/or modeling at this time to demonstrate compliance.

5. Comment: Georgia Power should be required to complete predictive modeling to determine when groundwater can be expected to improve to background conditions. The model should consider, for example, the post-closure groundwater seepage velocity, expected post-closure groundwater elevations, pollutant attenuation in sandy and clayey soils, and the effects of using separator dike soils as fill materials.

EPD Response: EPD does not agree that predictive modeling information is required to evaluate this particular permit, 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.

6. Comment: The Draft Permit should be revised to specify that any proposed beneficial reuse must be approved in advance by EPD, and that any solid waste handling facility that would receive excavated CCR materials be designed, constructed, and operated in accordance with governing regulations for municipal solid waste landfills (e.g., location restrictions, composite liners, and leachate collection and treatment systems).

EPD Response: Draft Permit Condition no. 13 states that the CCR beneficial use or disposal in a permitted facility shall be conducted in accordance with the Rules for Solid Waste Management Chapter 391-3-4.

According to Rule 391-3-4-.02(4)(b)(21), the removal or recovery of CCR from a CCR unit for the purpose of beneficial use is considered a minor modification to the permit and should be approved in advance by EPD. Also, the unencapsulated use of CCR is regulated by Rule 391-3-4-.10(2)(a)(4).

Rule 391-3-4-.07(5) requires any solid waste disposal facility where CCR will be disposed or has been disposed to incorporate a CCR Management Plan into the facility's Design and Operational Plan. To receive CCR, facilities must have a composite liner system that meets the requirements of 391-3-4-.07(1)(d)1.c. The design consistency component of the CCR Management plan is included in the attached EPD Guidance Document. CCR Management Plans are reviewed and approved by the EPD for permitted facilities that were designed, constructed, and operated in accordance with the governing regulations for municipal solid waste landfills.