

**LOCATION RESTRICTION DEMONSTRATION
SEISMIC IMPACT ZONE (40 C.F.R. PART 257.63)
PLANT HAMMOND ASH POND 3 (AP-3)
GEORGIA POWER COMPANY**

Plant Hammond AP-3 is subject to the timelines announced in 81 Fed. Reg. 51802 (5 August 2016). EPA's "Disposal of Coal Combustion Residuals from Electric Utilities Final Rule" (40 C.F.R. Part 257.63), requires that existing CCR surface impoundments must not be located in seismic impact zones unless the owner/operator demonstrates that all structural components of the impoundments (including liner systems, leachate collection and removal systems, and surface water control systems) are designed to resist the maximum horizontal acceleration in lithified earth material at the site. A seismic impact zone is defined in the USEPA CCR Rule as an area having a 2 percent or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g) will exceed 0.10g (or 10%g) in 50 years. This determination can be made using a seismic hazard map or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment. The United States Geological Survey (USGS) Unified Hazard Tool for the Conterminous U.S. (2014) (v4.1.1) was used to calculate the estimated maximum horizontal acceleration for the vicinity of AP-1. Based on review of the data, AP-3 is in a seismic impact zone, as defined in 40 CFR 257.53, with a reported maximum horizontal acceleration in lithified earth material of 0.22g (or 22%g).

A slope stability analysis was conducted for AP-3 by Stantec (2018) to evaluate the stability of the dikes and the unit under seismic loading conditions of the design earthquake (maximum horizontal acceleration in lithified earth material of 0.22g). The details and results of this analysis are included in Section B of the Engineering Report included in Part B of the Georgia EPD CCR permit application package. The analysis resulted in a calculated factor of safety of 1.2, exceeding the required minimum factor of safety of 1.0 required in 40 CFR 257.73(e)(1)(iii). Additionally, a veneer stability analysis was conducted to assess the stability of the geomembrane cap system under the same seismic loading conditions. The details and results of this analysis are included in Section D of Part B of the Georgia EPD CCR permit application package. The analysis resulted in a calculated factor of safety of 2.5, exceeding the required minimum factor of safety of 1.0.

I hereby certify that for Georgia Power's Plant Hammond AP-3, the seismic impact zones location restriction demonstration meets the requirements of 40 C.F.R. Part 257.63(a).



Cuneyt Gokmen, P.E.

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