

**LOCATION RESTRICTION DEMONSTRATION
UNSTABLE AREAS (40 C.F.R. PART 257.64)
PLANT HAMMOND ASH POND 2 (AP-2)
GEORGIA POWER COMPANY**

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities Final Rule" (40 C.F.R. Part 257.64), requires that existing CCR surface impoundments must not be located in an unstable area unless recognized and generally-accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted. The USEPA CCR Rule defines an unstable area as "a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components, of some or all of the CCR unit that are responsible for preventing releases from such unit." Unstable areas may include poor foundation soil conditions, areas susceptible to mass movements, and geological conditions such as karst terrains.

Soil Conditions

Based on historical borings advanced at Plant Hammond (Plant), the soil conditions in the vicinity and beneath AP-2 contain significant amounts of clay that is not susceptible to liquefaction. AP-2 is a diked structure, with the embankment constructed from borrow soils from within the pond. The native materials were used to construct the dike using mechanical stabilization and compacted to a density sufficient to withstand the range of loading conditions. These native materials are relatively stiff and comprised typically of clayey sand, silt, and sandy lean, to fat clay. There is no known history of issues associated with settlement or differential settlement at AP-2. Therefore, soil conditions in the vicinity and beneath AP-2 should not result in significant differential settlement.

Geologic Conditions

The USGS National Karst Map (2014), which shows locations of karst and potential karst areas in soluble rocks in the contiguous United States, identifies the area near the Plant as "carbonate rocks at or near the land surface (occurring in a humid climate)". AP-2 is underlain by the lower unit of the Conasauga Formation, and borings advanced in the vicinity of the pond indicate bedrock comprised of calcareous shale and black, fissile shale. The rock types observed in these borings are not likely to be affected by karst processes. Observation of rock cores during drilling and review of historical boring logs from AP-2 do not indicate the presence of solution features.

A review of the 7.5-minute USGS topographic maps from the Rock Mountain and Livingston, GA quadrangles did not indicate the presence of surface expressions of karst features, such as sinkholes, surface depressions, and sinking or disappearing streams within approximately 1 mile of the Plant. The presence of few small springs and wet-weather seeps in western Floyd County suggests that large-scale karst dissolution features do not significantly impact regional groundwater flow and hydrogeology in the predominantly shale geologic formation underlying AP-2.


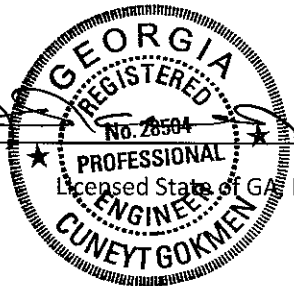
AP-2 is situated on a site that is not at risk from unstable natural slopes or mass movements and is not at risk of erosive undercutting by the nearby surface water of the Coosa River.

There is no known record of structural instability for AP-2. Over the course of operation, minor repairs of surface sloughs (vener sloughs) have been performed on the outer or downstream slopes, but these are not related to geological or hydrogeological conditions at the pond. Based on the foregoing discussion, under current conditions the structural elements of AP-2 are not prone to disruption due to geologic features.

Human-made Features

AP-2 and the other adjacent ponds represent human-made features that include the containment dikes and associated infrastructure (i.e., pipes, intake structures, spillway, etc.). The *Initial Safety Factor Assessment for Plant Hammond Ash Pond 2 (AP-2)* conducted by Georgia Power Company in October 2016 concluded that the structural components of AP-2 are stable. There are no known features at the Plant capable of impairing the integrity of the structural components of the unit and therefore AP-2 is not prone to disruption due to human-made features.

I hereby certify that for Georgia Power's Plant Hammond AP-2, the unstable areas location restriction demonstration meets the requirements of 40 C.F.R. 257.64(a).


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10/17/2018