

INITIAL STRUCTURAL STABILITY ASSESSMENT
40 C.F.R § 257.100(f)(2)(iv) and 40 C.F.R. § 257.73(d)
PLANT MITCHELL ASH POND 1 (AP-1)
GEORGIA POWER COMPANY

A rule amendment to the Federal Coal Combustion Residuals (CCR) Rule (40 C.F.R. Part 257) became effective on November 8, 2024. See Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments, 89 Fed. Reg. 38950 (“Legacy Rule”). The Legacy Rule defines the term “legacy CCR surface impoundment” and establishes regulatory requirements for units that meet the definition of a legacy CCR surface impoundment. The Legacy Rule requires the owner or operator of a legacy CCR impoundment to conduct an initial and periodic structural stability assessment of the CCR unit and document whether the design, construction, operation and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. See 40 C.F.R. § 257.100(f)(2)(iv); 40 C.F.R. § 257.73(d). In addition, the Rules require a subsequent assessment to be performed within 5 years of the previous assessment [See 40 C.F.R. § 257.73(f)(3)].

The legacy CCR surface impoundment known as Plant Mitchell Ash Pond 1 (AP-1) is located approximately 8 miles south of Albany, Georgia on Georgia Power’s Plant Mitchell property. AP-1 was one of three former CCR surface impoundments constructed to store CCR from the former coal-fired power plant. The Notification of Intent to Initiate Closure of AP-1 was placed in the Operating Record in October 2019. AP-1 no longer receives CCR and is currently undergoing closure by removal wherein CCR material is removed and transported by rail and truck for beneficial use or disposal at an approved landfill.

AP-1 is located in the East Gulf Coastal Plain physiographic province of Georgia in the Dougherty Plain physiographic district. The foundation soils at AP-1 consist of quaternary stream alluvium and undifferentiated terrace deposits along the Flint River. The underlying bedrock is the Ocala Limestone of the Eocene age. Available historic documents and semi-annual dam safety inspection reports from 2017 to 2026 were reviewed for the identification of karst features. Karst features were identified within and in the vicinity of AP-1, the majority of which were located outside the downstream toe of the western and northern portions of the AP-1 dam. All karst features that were identified were mitigated. There were no observed impacts to the structural integrity of the AP-1 dam noted. Inspections of the AP-1 dam are conducted semiannually by professional dam safety engineers and on a seven-day interval by trained plant personnel. In addition, inspections are performed after periods of heavy rainfall and storms. The inspections provide assurance that the structures are sound and that any issues noted are addressed in a timely manner, as

needed, based on the findings. Seven-day inspections include numerous items including pond levels, weather conditions and rainfall since the prior inspection, conditions of slopes and drains, erosion, animal damage, ant hills, alignment of retaining structures and more. During semiannual inspections, dam safety engineers assess instrument readings, inspect any maintenance or remediation performed since the previous inspection, check the status of work recommended at prior inspections, ensure that the posting of emergency notification information is up to date and evaluate any items noted during plant personnel inspections.

Slope protection against surface erosion mostly consists of vegetation and appears to provide suitable protection. There are a few isolated areas where riprap has been placed on the downstream slope of the north and west sides of AP-1. The surface impoundment mostly contains CCR with pools of free water only present at the Contact Water Lagoon and the Industrial Stormwater Detention Pond 1N, both of which are lined with impermeable geomembrane liners. The geomembrane liner system protects the underlying soil from erosive wave forces and prevents the build-up up of excess pore pressures in these soils, thus preventing rapid drawdown conditions from occurring. Therefore, neither wave action nor rapid drawdown is a concern at AP-1.

AP-1 is approximately 53 acres and was formed by constructing an engineered perimeter dam around the impoundment. The material used to construct the perimeter dam of AP-1 was sourced from the residuum material excavated from within the AP-1 footprint during its construction. The material is generally clayey silty sand to sandy silty clay and was compacted to build the perimeter dike sufficient to withstand the range of loading conditions anticipated at the site.

The vegetated slopes of the dam are properly maintained to a manageable height that allows for routine visual inspections.

The CCR unit currently does not have a spillway or discharge structure that passes through or under the dam. The original primary discharge riser structure was located in the southwest corner of AP-1 and was abandoned by removal as a part of the closure-by-removal construction, while the discharge pipe from the riser structure was grouted in place within the dike. Currently, contact water from storm events is pumped into the Contact Water Lagoon. AP-1 is capable of storing the runoff from the 1,000-year, 24-hour storm event with a rainfall of 12.0 inches without overtopping. There are no hydraulic structures associated with AP-1.

A review of current conditions indicates that the downstream slopes of the AP-1 dam could be subject to inundation from a 100-year flood event of the Flint River. The FEMA base flood elevation is 173 ft-msl, and the elevation of the top of the AP-1 dam is 192 ft-msl while the toe is approximately 168 ft-msl. The downstream toe of the dam is located approximately 600 ft from the normal flow edge of the Flint River (at its nearest point). The downstream slopes are well vegetated, stable, and have not shown any signs of erosion. The flood plain is wide and flat, and should not have significant erosion velocities during flooding.

I hereby certify that the structural stability assessment was conducted in accordance with 40 C.F.R § 257.100(f)(2)(iv) and 40 C.F.R. § 257.73(d).



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