AP-1 is a legacy CCR surface impoundment at Plant Arkwright that was taken out of service in 1990 and closed with a soil cover in accordance with state requirements at the time. The Georgia EPD issued a closure certification in 2010. Subsequent federal CCR regulations established additional closure pathways and compliance requirements. AP-1 is being addressed under the current CCR framework through closure by removal in accordance with 40 CFR § 257.102(c). In its current condition, the unit is inactive and does not function as an operational impoundment. Closure by removal will eliminate CCR from the unit.

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

A rule amendment to the Federal CCR Rule became effective on November 8, 2024. S*ee* Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments, 89 Fed. Reg. 38950 ("Legacy Rule"). This 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. Part 257, §257.100(f)(2)(iv) and §257.73(d). In addition, the Rules require a subsequent assessment be performed within 5 years of the previous assessment. *See* 40 C.F.R. § 257.73(f)(3).

The legacy CCR unit known as Plant Arkwright Ash Pond 1 (AP-1) is located in Bibb County, Georgia, approximately six (6) miles northwest of the city of Macon. Plant Arkwright began operation in 1941 and was retired in 2002. Plant Arkwright was decommissioned in 2003, and demolition of the plant was completed in 2003. AP-1 was designed to receive and store CCR produced during the electric generating process at Plant Arkwright and was used from 1941 until 1977. The Ocmulgee River is located directly east and Beaverdam Creek is located directly west of the unit.

The northern portion of AP-1 was created by construction of a main dam across a valley on the north end with a crest elevation of approximately 330 feet. The southern portion of AP-1 was created by construction of a main dam, which bounds the south pond on the east, south and west sides with a crest elevation of approximately 330 feet. Between the north pond and the south pond was original native ground above elevation 330 feet. During operations, CCR was stacked above the original perimeter dam and on native high ground areas.

AP-1's impounding dams are homogenous structures comprised of compacted clayey and sandy fill sourced from residual soils, supported by the residual foundation soils. In general, the abutment foundation soils consist of undisturbed residual soils varying from a firm to stiff silty clay, loose to

medium dense silty sand, and medium dense to dense sand and gravel overlying weathered bedrock and/or bedrock. A lens or layer of loose alluvial sand was identified as a dam foundation soil in the northernmost portion of AP-1, adjacent to the Ocmulgee River. Annual inspections for AP-1 have been performed and documented regularly since 1976. No actual or potential structural weaknesses of the dam or abutments for the AP-1 unit, or any existing conditions that are disrupting or have the potential to disrupt the operation and safety of AP-1 were documented in the most recent annual inspection, dated October 21, 2024.

The AP-1 unit was closed in place in 1990 and a Closure Certificate was issued by GA EPD for AP-1 on July 30, 2010, and tracking number 011-030D(LI) was assigned. AP-1 has been capped and no longer impounds water or receives waste. Closure construction activities completed on AP-1 have rendered the former surface impoundment incapable of receiving, discharging or impounding water. Since AP-1 has been closed and is no longer capable of impounding water, rapid drawdown failure of inboard slopes cannot occur.

Protection against surface erosion consists of vegetated slopes with gabions, scour mats and riprap placed in select areas at the toe of slopes adjacent to the river/creek. Roads along the crest and slope are gravel surfaced. Wave action is not a concern at this site given that there is no water impounded within the AP-1 unit.

The dams have been properly constructed using mechanical stabilization and earthen soils compacted to a density sufficient to withstand the range of loading conditions. Construction records related to the placement and compaction of the dam indicate that materials were spread in layers and rolled.

Vegetated cover on slopes of the dams is properly maintained to a manageable height that allows for routine visual inspections. Documented site inspections have indicated appropriate maintenance of slope vegetation.

AP-1 does not have a spillway and does not impound water; therefore, the 24-hour, 1000-year storm event is not applicable. Stormwater from the cap is collected in grass lined and armored (e.g., riprap lined and turf reinforcement matted) ditches and is directed towards multiple stormwater outfalls around the unit. The current closed drainage configuration adequately manages flow during and following the peak discharge from a 24-hour, 25-year storm event.

There are no hydraulic structures associated with AP-1.

A review of current conditions indicates that portions of the outboard slopes at AP-1 are subject to inundation from the 100-year flood of the Ocmulgee River and Beaverdam Creek. The results of slope stability analysis show that AP-1 does not meet the recommended factor of safety for sudden drawdown loading condition. However, AP-1 will soon be subject to additional closure activities that will remove the CCR and thus eliminate the potential for CCR release due to slope instability. In addition, it is unlikely that flood conditions will persist long enough to fully saturate the dam slopes and create the conditions for the modeled sudden drawdown failure.

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).


Jeffrey S. Dingrando, P.E.

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