LOCATION RESTRICTIONS CERTIFICATION
PLANT CRISP ASH POND
CRISP COUNTY POWER COMPANY

PLACEMENT ABOVE THE UPPERMOST AQUIFER - (40 CFR §257.60)

United States Environmental Protection Agency's (USEPA's) "Disposal of Coal Combustion Residuals from Electric Utilities Final Rule" (CCR Rule), Section §257.60 requires that an existing CCR surface impoundment be constructed with a base that is located five feet above the upper limit of the uppermost aquifer, or must not have an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations.

Based on current hydrogeologic data and the estimated bottom grades of the CCR contained within the unit, portions of the Crisp County Power Commission (CCPC) Plant Crisp Ash Pond (AP) is absent the minimum five-foot separation between the base of the CCR unit and the upper limit of the uppermost aquifer. Therefore, the AP under its current operating condition does not meet the location restriction for placement above the uppermost aquifer.

CCPC is closing the AP by removal in accordance with the USEPA CCR Rule and Georgia Environmental Protection Division (GA EPD) CCR Rule (GA EPD Solid Waste Regulations, Chapter 391-3-4-.10). It is anticipated that the elevated groundwater beneath the site will dissipate when the free water is removed along with the CCR from the AP during proposed closure activities, and the closure by removal will completely mitigate this condition by eliminating the AP.

WETLANDS - (40 CFR §257.61)

USEPA's CCR Rule, Section §257.61 requires that existing CCR surface impoundments must not be located in wetlands, as defined by the U.S. Army Corps of Engineers, without special considerations and permitting. A review of the U.S. Fish and Wildlife Service National Wetlands Inventory Database (2019) identified no jurisdictional wetlands within the boundaries of the AP.

In March 2019, a wetlands field survey was conducted to further evaluate the area near the AP for the presence of wetlands, open waters, and streams. No wetlands or waters of the state were identified within the footprint of the AP as part of the wetland survey. Therefore, the AP is not located in a wetland as defined under the Federal Clean Water Act, 33 U.S.C. §1251 et seq.

I hereby certify that for CCPC's Plant Crisp AP, the wetlands location restriction demonstration meets the requirements of 40 CFR §257.61(a).

FAULT AREAS - (40 CFR §257.62)

USEPA's CCR Rule, Section §257.62 requires that existing CCR surface impoundments must not be located within 200 feet of the outermost damage zone of a fault that has had displacement in Holocene time (i.e., within the last approximately 12,000 years). Based on review of available publications from the United States Geological Survey (USGS), there are no known faults of

Cretaceous or Cenozoic age (within the last approximately 66 million years) in Worth or the adjoining counties of southwest Georgia. Therefore, the Plant Crisp AP is not located within 200 feet of the outermost damage zone of a fault that has had displacement in Holocene time.

I hereby certify that for CCPC's Plant Crisp AP, the fault areas location restriction demonstration meets the requirements of 40 CFR §257.62(a).

SEISMIC IMPACT ZONE - (40 CFR §257.63)

USEPA's CCR Rule, Section §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 analysis based on a site-specific seismic risk assessment. The USGS Unified Hazard Tool for the Coterminous U.S. (2014) (v4.1.1) was used to estimate the maximum horizontal acceleration for the vicinity of the AP. Based on review of the data, the AP has a reported maximum horizontal acceleration in lithified earth material of 0.051g (or 5.1%g), and therefore, is not located in a seismic impact zone.

I hereby certify that for CCPC's Plant Crisp AP, the seismic impact zones location restriction demonstration meets the requirements of 40 CFR §257.63(a).

UNSTABLE AREAS - (40 CFR §257.64)

USEPA's CCR Rule, Section §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.

<u>Soil Conditions</u>

Based on historical borings advanced at the site, the soil conditions in the vicinity and beneath the AP contain significant amounts of silt and clay that are not susceptible to liquefaction. These materials consist of silty sand, silty clayey sand, and stiff clay residuum of the underlying limestone bedrock. There is no known history of issues associated with settlement or differential settlement at the AP. Therefore, soil conditions in the vicinity and beneath the AP should not result in any unstable soil conditions.

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 Plant Crisp as "carbonate rocks at or near the land surface (occurring in a humid climate)". USGS topographic maps were reviewed to identify the existence of surface expressions of karst features, including sinkholes, surface depressions, and sinking or disappearing streams. None of these features were identified within approximately 1 mile of the Plant Crisp. The AP is underlain by over 40 feet of Quaternary alluvial sediments and residuum, overlaying the Ocala Limestone. Borings and field observations at the Site do not indicate the presence of bedrock outcrops or bedrock at or near the ground surface. Observation of soil and rock cores during drilling and review of historical boring logs from the AP do not indicate the presence of karst solution features that would impact structural features at the AP.

The AP is situated on a site that is not at risk from unstable natural slopes. There is no known record of structural instability during the operational history of the AP. This, as well as the lack of observed surface expressions of karst processes and the presence of a thick (40 feet or more) layer of alluvial and residual soils suggest that under current conditions, the structural elements of the AP are not prone to disruption due to geologic features.

Human-made Features

There are no known human-made features or activities beneath or in the vicinity of the AP that pose a risk to the structural stability of the dikes, foundations, or other structural elements of the pond.

I hereby certify that for CCPC's Plant Crisp AP, the unstable areas location restriction demonstration meets the requirements of 40 CFR §257.64.

Mehmet Iscimen, P.E.

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5/20/2019