

US EPA ARCHIVE DOCUMENT



CRISP COUNTY POWER COMMISSION

April 7, 2014

Mr. Stephen Hoffman
U.S. Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Drive
5th Floor, N-5838
Arlington, VA 22202-2733

**RECOMMENDATIONS AND RESPONSES
REQUEST FOR ACTION PLAN REGARDING
CRISP POWER PLANT**

Dear Mr. Hoffman:

Crisp County Power Commission (CCPC) is transmitting herewith, responses to recommendations on the Request for Action Plan Regarding the Crisp Power Plant included in the U.S. Environmental Protection Agency (USEPA) letter dated March 5, 2014. The recommendations are presented below in **bold type** with our responses presented in regular type.

RECOMMENDATION NO. 01 Regarding the Hydrologic/Hydraulic Safety:

It is recommended that a qualified professional engineer assist the Crisp County Power Commission to evaluate the hydrologic and hydraulic capacity of the CCW impoundment to withstand design storm events without overtopping.

RESPONSE NO. 01: CCPC has issued a purchase order to a qualified professional engineering firm to perform the required work. The hydrologic and hydraulic capacity of the impoundment will be assessed using USACE's Hydrologic Engineering Center – Hydrologic Modeling System (HEC-HMS) software program. The design storm used to determine the hydraulic capacity of the ash pond will be determined based on the classification according to the Georgia Safe Dam Rules (Georgia Department of Natural Resources – Environmental Division Rules Chapter 391-3-8). The classification of the ash pond will be determined from data obtained from a new site survey. The Probable Maximum Precipitation (PMP) event will be determined using NOAA's Hydrometeorological Reports (HMR) 51 and 52.

RECOMMENDATION NO. 02 Regarding the Technical Documentation for Structural Stability:

It is recommended that a qualified professional engineer assist Crisp County Power Commission in the evaluation of the Ash Pond's embankments stability, including liquefaction analyses.

RESPONSE NO. 02: CCPC has issued a purchase order to a qualified professional engineering firm to perform the required work. The work will include conducting a site geotechnical investigation consisting of the performance of four (4) geotechnical borings drilled to depths ranging from 25 feet to 50 feet and associated laboratory testing; performing a site survey to develop as-built drawings of the facility; and performing stability analyses using the Slope/W program, which is a part of the GeoStudio suite of software developed by GeoSlope International. A liquefaction analysis for the embankment will be carried out for the critical section using an empirical procedure developed by Youd et al, which provides methods to evaluate the liquefaction resistance of soils.

RECOMMENDATION NO. 03 Regarding Field Observations:

Erosion rills and scarps – Erosion rills and scarps were observed on the exterior and interior slopes of the west embankment. Structural fill should be placed and compacted in the rills and scarps and the repaired areas graded to meet the adjacent existing contours. After slope restoration, it is recommended that the exposed surface of the embankment be stabilized with sod or hydro seeded to restore vegetation cover on the slopes.

Animal burrows were not observed on the embankments exterior slopes. Although none were seen, the vegetation cover may have hidden animal burrows. Therefore it is recommended that vegetation be maintained at a height that allows potential animal burrows to be readily observed.

RESPONSE NO. 03: A repair plan and schedule will be developed after completion of the engineering study.

RECOMMENDATION NO. 04 Regarding Surveillance and Monitoring Program:

Monitoring the embankment slopes and crests for erosion, movement, animal burrows, and seepage is recommended. Although no discharge into Lake Blackshear (Flint River Basin) was observed, surveillance and monitoring in accordance with effluent limitations set forth in the NPDES Permit is recommended.

RESPONSE NO. 04: CCPC will continue to perform the tasks specified in its existing surveillance and monitoring plan.

RECOMMENDATION NO. 05 Regarding Continued Safe and Reliable Operation:

Inspections should be made following periods of heavy and/or prolonged rainfall, and the occurrence of these events should be documented. Inspection records should be retained at the facility for a minimum of three years. Major repairs and slope restoration should be designed by a registered professional engineer experienced with earthen dam design. None of the conditions observed during our site visit require immediate attention or remediation. However, the recommendations in this report should be implemented in a reasonable time frame to maintain continued safe and reliable operation of the CCW impoundment.

RESPONSE NO. 05: As indicated in our response to **Recommendation No. 04** CCPC will continue to perform the tasks specified in its existing surveillance and monitoring plan as it relates to inspection records and responses to severe weather events.

Any required major repairs or modifications to the facility will be designed by a registered professional engineer.

We anticipate completing the engineering evaluation by August 15, 2014.

If you have any questions or require additional information, please contact me at:

Steve Rentfrow

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Sincerely,



Steve Rentfrow
General Manager

Copy to: Gene Ford