

Tennessee Valley Authority
Regulatory Submittal for Kingston Fossil Plant

Documents submitted
Work Plan for Dredge Relocation R0

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Relocation of the TVA Dredge Work Plan

1.0 Purpose

In preparation for removing debris and ash from the ash “plug” east of Dike 2 and west of the sand island formation, the project plans to deploy a TVA owned dredge into the Emory River. This plan describes the activities to be performed to move the dredge and provides a schedule for completion of the activity.

2.0 Dredge Relocation

The project will deploy an additional dredge to the Emory River to improve ash recovery production and accelerate removal of the ash “plug” east of Dike 2. The tasks required to achieve this objective include the following:

- Investigate and inspect the existing dredge condition
- Perform maintenance and fluid exchanges in preparation for river deployment
- Develop a platform at the Settling Pond Location for lifting the dredge from the pond
- Install discharge lines from the ash “plug” area to the Recovery Ditch
- Launch and re-assemble the dredge at the KIF South Boat Launch

The TVA Dredge currently located in the Ash Settling Pond was originally manufactured by a company that is now owned by Dredge Masters Incorporated. The dredge has a 14” diameter suction line and an 18” diameter discharge line. The project contacted both the manufacturer and TVA operations personnel to determine how the dredge was originally constructed and modifications made thereafter. Although the dredge has been performing well in the settling pond, the dredge has had a few leaks in the hull in the past and the pontoons currently on the dredge are larger than the original pontoons installed by the manufacturer. Information gathered from Dredge Masters and Plant Operations personnel was used to estimate the weights of the various components and the dredge body for lift planning purposes.

The project will conduct an inspection of the dredge, perform maintenance on the cutterhead, and prepare the dredge for relocation (i.e., disconnect the discharge line, etc.).

The engine oil, hydraulic fluid, and antifreeze for the dredge will be replaced with environmentally inert or biodegradable fluids. Additional maintenance activities will be performed including replacing rubber seals, installing noise dampening mufflers, and any other items identified on the inspection checklist.

To ensure a stable platform is available for crane lifting the dredge, the landing between the settling pond and stilling pond will be improved with a rock base. A platform with approximate dimensions of 150'X300' will be prepared with approximately 1' of aggregate. Once the platform is prepared, the dredge and components will be lifted by crane from the settling pond and placed on trailers for transport to the south boat launch area. Once the loads are secured, the oversized trailer with the dredge and any additional trailers will be escorted to their destination.

Concurrently with other activities, the project will assemble 18" discharge lines from the north end of Segment 1 to the Ash Recovery ditch. The discharge lines are HDPE with welded seams. As needed, the discharge line will be protected from traffic (across roads) or protected from boats with the installation of floats (over water).

In a manner similar to the removal of the dredge from the pond, the dredge will be crane lifted from the trailer and launched into the water at the south boat ramp and re-assembled. The dredge will then be moved into position on the north end of Segment 1 and connected to the discharge lines.

3.0 Schedule

The field activities associated with relocating the dredge will commence on May 26, 2009. The activities described above are anticipated to require about 4 weeks to complete. Equipment related activities such as crane lifting and discharge pipe assembly will be weather dependent to ensure the safety of the crew from slick surfaces or lightning.

4.0 Waste management

The waste generated from these activities will include petroleum products and construction debris. Petroleum products generated through the replacement of fluids in the dredge will be packaged and dispositioned in accordance with plant operations and

maintenance procedures. Construction debris will be collected in a debris dumpster and disposed off-site at the appropriate facility. No ash waste is anticipated to be generated through the relocation of the TVA dredge.

5.0 Health and Safety

The activities in this work plan will follow the site-wide health and safety plan. Of primary concern will be lift planning and over-size load transport. A lift plan will be prepared in accordance with TVA's hoisting and rigging procedures and riggers and crane operator have been certified by TVA. Appropriate over-sized load permits will be secured if the dredge is moved through public roads. Whether through public or TVA roads, the over-sized transport will be escorted from the Settling pond area to the south boat ramp.