

Tennessee Valley Authority  
Regulatory Submittal for Kingston Fossil Plant

Documents submitted:

Time Critical Land-Based Ash Removal East of Dike #2 Work Plan

Date submitted

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## **Time Critical Land-Based Ash Removal East of Dike #2 Work Plan**

### **1.0 Purpose**

As part of several on-going activities in the area east of Dike #2, ash is being temporarily disturbed. Activities include construction of a clean water discharge system consistent with the Interim Drainage Plan and Controls document approved on April 3, 2009. A work plan was developed to allow movement of incidental ash being generated under these activities. This work plan addresses removing all remaining ash from the area east of Dike #2 that can be handled with land-based equipment. Primarily this effort is confined to removing ash from land masses or immediately adjacent to land masses such as the narrow East Embayment. Additional work plans have been or will be developed for the use of water based equipment to remove remaining ash at the mouth of Swan Pond Embayment. This action supports the time-critical removal action to remove all ash from the land and the river east of Dike #2.

The removal of the dry ash on the land first will provide processing space for removal activities of the wet ash. The wetter ash will need to have room to dry prior to even short-haul transport.

### **2.0 Design**

There is no design for the ash movement. However, a monitoring plan that assesses the flow of water and concentration of metals and total suspended solids exiting the Embayment area during these activities will be developed and submitted for approval under a separate plan. The plan will indicate the sampling locations as well as the analytes and sampling frequency.

### **3.0 Construction**

The primary field work activity described in this work plan is the removal of land-based ash in the East Embayment and the area east of Dike #2. The ash will be moved and shaped using bulldozers and loaded onto articulating trucks by front end loaders and backhoes. The ash will be transported by articulating trucks to either the ash processing area or to the dredge cell to support ash stability testing (under separate work plan approved for the test). Additionally, if offsite disposal is approved in a separate trucking/disposal work plan, this dry ash may be placed directly in dump trucks to a final offsite disposal location.

There are two areas of ash to be removed:

- 1) East Embayment, and
- 2) Ash on, or immediately adjacent to land between Dike 2 and the river

**1) East Embayment** – the plan is to physically remove the ash using earth moving equipment and transport the ash to the storage area or to the dredge cell embankment test area. Some amphibious equipment may be used since the conditions are wetter in this

area. Water management may be necessary to control the upstream embayment water from impacting the excavation area. This could include bypass channels or pumping to the river. This water, while fairly stagnant, is water that normally discharged into the river directly. During the summer months, water management may be less of an issue.

If some of the ash has a high enough water content to cause it to adhere to transport trucks or have excessive free liquids that could spill during site transport, some air drying will be conducted first. If the material is directly trucked offsite for disposal, all appropriate waste characteristics will be met as directed under that work plan.

The estimated quantity of ash to be moved from the East Embayment to the ash storage area is approximately 75,000 cubic yards.

2) ***Ash directly adjacent to Dike #2*** – this material will be moved with earth moving equipment. Much of this material has already been stockpiled as a result of being moved during other activities in the area. The material will be loaded into articulating dump trucks and taken to either the ash processing area or to the dredge cell where it will be used for the ash stability testing in the dredge cell. This could be modified to accommodate hauling directly off-site if an off-site ash disposal plan by truck is approved.

The estimated quantity of ash to be moved from the area adjacent to Dike #2 is approximately 200,000 cubic yards.

***Access modifications*** – Modifications to the area including installation of temporary access roads and maybe improving the road on the Dike may be needed to allow for sufficient productivity to remove most of this ash during the dry months. This may include making the dike road a two way road. Any significant modifications to the dike will be done through the current geotechnical engineering firm. At this time, the only plan is to slightly widen the road in spots to allow for two-way traffic.

***Erosion controls*** – Silt fences, hay bales, temporary berms, flexterra, and other dust and erosion control practices will be used while moving the ash. Special attention will be paid to controlling runoff directly to the river.

#### **4.0 Schedule**

This work will commence immediately upon approval of this plan. The first area to be worked is the dry ash in the area directly east of Dike #2. Full productivity will be reached once any necessary access improvements are made.

#### **5.0 Waste Management**

Ash is the waste generated and its handling is addressed in Section 3.0.

#### **6.0 Health and Safety**

The activities in this work plan will follow the site-wide health and safety plan. Of primary concern will be dust generation which will be controlled through use of water trucks and Flexterra. Personal hygiene efforts will be used also to control exposure to ash. Vehicles will follow clean protocol utilizing wash stations located on TVA property.