

Tennessee Valley Authority  
Regulatory Submittal for Kingston Fossil Plant

Documents submitted:  
Settling Areas 1A & 2A Maintenance and Clean Out Work Plan

Date Submitted:  
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Submitted to whom  
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## **Settling Areas 1A & 2A Maintenance and Clean Out Work Plan**

### **1.0 Purpose of Work**

This plan is to define the maintenance and clean out plan for Settling Areas 1A & 2A. The basins were designed to capture ash materials from storm runoff prior to it being discharged into the river. The basins have standpipes with floating skimmers that allow water to be taken off the top once the ash has fallen out of the runoff. There is a rock baffle in area 1A and 3 jute baffles in pond 2A.

During de-watering of areas east of Dike 2 ash laden water is pumped into the basins to allow settling prior to discharge. These activities are intermittent and usually are low volume discharges. However this increases the ash loading to the settling areas and should be accounted for in this plan.

The original design was to capture all runoff from areas that contain ash.

### **2.0 Design Components**

#### **2.1 Inspection and Maintenance**

The skimmers will be inspected once every month to insure they are in proper working order and cleaned out if fouled. They will be observed during the SWPPP inspections that occur twice weekly and if needed will be cleaned prior to the scheduled cleaning.

Settling Area 1A & 2A will be cleaned out (ash removed) at least every week. The clean out frequency may be increased or decreased as conditions warrant.

All areas will be monitored during the SWPPP inspections.

#### **2.2 Clean Out**

Settling Area 1A and 2A are proposed to be cleaned out using a remote controlled hydraulic dredge. The dredged material will be pumped to Lateral Expansion as approved by the Lateral Expansion Work Plan. Dredge pipe will be routed overland to the Lateral Expansion. The area will be monitored daily during pumping operations and will be repaired or re-engineered, as necessary, to control erosion. Additional clean out may be required by mechanical means such as a track hoe to aid the hydraulic dredge from time to time. The material removed by mechanical means will be stockpiled on-site until it is dry enough to haul to the Ballfield or Test Fill for disposal.

A mechanical de-watering system may be used in conjunction with the dredge instead of pumping the material to the Lateral Expansion, if for some reason the Lateral Expansion is not available for use.

### **2.3 Construction**

The existing settling areas have several baffles across the basins. The baffles will cause difficulty in moving the dredge within the settling areas. Prior to dredging operations the baffles will be removed (rock and jute). The existing road between the settling areas will be removed as well. This will provide one large settling area instead of two separate ones. The original design required the flow to be split, hence the need for two areas. The flow has not been split therefore the need to keep separate areas has been eliminated. Earlier changes to the design removed the skimmers from Settling Area 1A and relocated them to Settling Area 2A. Pipes were installed through the road between the settling areas thus in effect making this one settling area, therefore the removal of the road will not change the functionality of the settling areas. Booms will be installed within the settling area in lieu of the baffles. The booms can be easily moved to allow dredge access to all parts of the basin. A large area of the channel just upstream of the inlet into the settling area will be excavated by amphibian track hoe to allow a pre disposition area prior to water entering the settling areas.

### **3.0 Construction Management**

The construction will be accomplished with hydraulic dredges, track hoes and construction haul vehicles.

QC of the installation will consist of visual observation of the work.

### **4.0 Schedule**

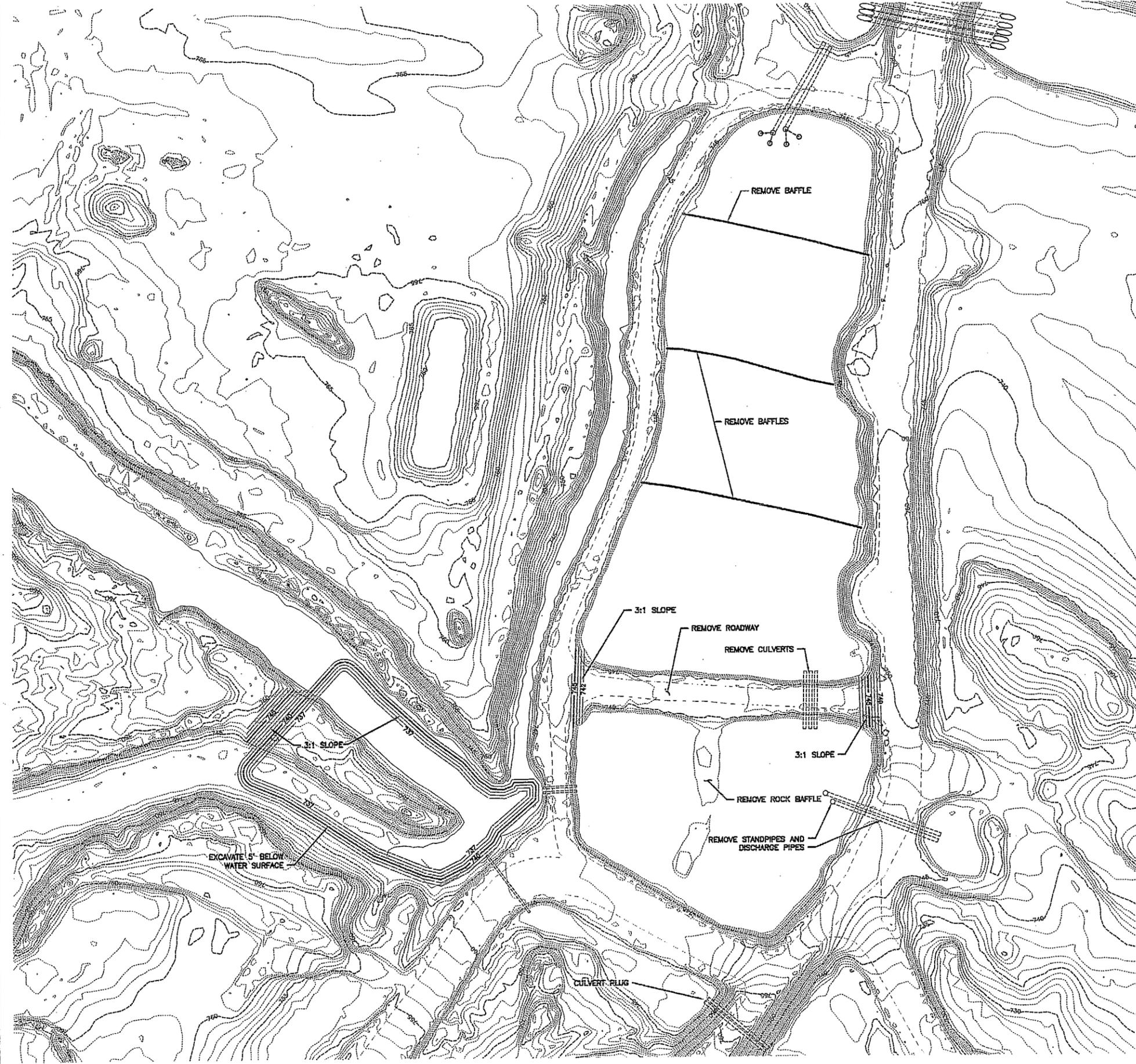
The activity would begin as soon as possible and continue until the ash is removed from the river and the embayments..

### **5.0 Waste Management**

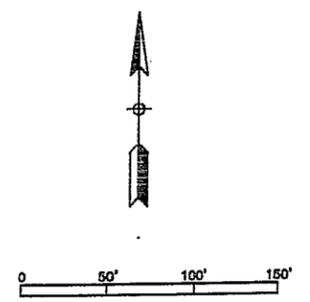
No waste will be generated by this work.

### **6.0 Health and Safety**

All construction activities will be done in accordance with the site-wide Health and Safety Plan.



PLAN  
SCALE: 1"=50'



|       |   |                         |     |
|-------|---|-------------------------|-----|
| SEAL  | <b>JACOBS</b>                                       |                         |     |
|       | KINGSTON FOSSIL PLANT<br>TENNESSEE VALLEY AUTHORITY |                         |     |
|       | SEDIMENT POND MODIFICATION PLAN                     |                         |     |
| DATE  | NO.   | BY                      | CHK |
| 12/   | 12/   | ISSUED FOR CONSTRUCTION | A   |
| SHOWN | INF-SK-047  | A                       |     |

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