Tennessee Valley Authority
Regulatory Submittal for Kingston Fossil Plant

Documents submitted:
Site Storm Water Management Plan
(Revised)
Date submitted
6/ 29/ 2009

Submitted to whom
Leo Francendese, EPA

Concurrence

Received	Not Applicable	TVA
☒	☐	Anda Ray
☒	☐	Mike Scott
☐	☒	Kathryn Copeland
☐	☒	Cynthia Anderson
☐	☒	Dennis Yankee
☐	☒	David Stephenson
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Received	Not Applicable	Jacobs
☐	☒	John Moebes
☒	☐	Julie Pfeffer
☐	☒	Jack Howard
☐	☒	Donna Cueroni
☐	☒	Paul Clay
☐	☐	_____

Approvals

TVA Michael T. Dyer Date 6/29/09

EPA Leo Francendese Date 6/29/09

Consulted w/ TDEC B. Scott.

cc:

- ☒ Anda Ray, TVA
- ☒ Barbara Scott, TDEC
- ☒ Leo Francendese, EPA
- ☒ Mike Scott, TVA
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- ☒ Kathryn Copeland, TVA
- ☒ Cynthia Anderson, TVA
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- ☒ Katie Kline, TVA
- ☒ Gretchen Wahl, Jacobs
- ☒ Barbara Scott, TDEC
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- ☒ Jeff Gary, Jacobs

Tennessee Valley Authority, 400 W. Summit Hill Drive, Knoxville, Tennessee 37902

Anda A. Ray
Senior Vice President
Office of Environment and Research

June 29, 2009

Mr. Leo Francendese
U. S. Environmental Protection Agency
Region 4
61 Forsyth Street Southwest
Atlanta, Georgia 30303
francendese.leo@epa.gov

By e-mail

Dear Mr. Francendese:

Please find enclosed the revised Site Storm Water Management Plan. The enclosed plan fulfills the requirements of Section IX, paragraph 28, item a of the Administrative Order and Agreement on Consent. Please contact me if you have any questions.

Sincerely,

Michael T Scott

for Anda A. Ray

Enclosures

TVA Kingston Fossil Plant
Ash Recovery Project, Time-Critical Action
Site Storm Water Management Plan

1.0 Project Description

On Monday, December 22, 2008, a dike failed at the Tennessee Valley Authority's Kingston Fossil Plant releasing approximately 5.4 mullion cubic yards of coal ash into Swan Pond Embayment and the Emory River. The Swan Pond Embayment has 3 main tributary embayment areas labeled as the West Embayment, the North Embayment and the East Embayment. Coal ash partially filled the three tributary embayments as well as Swan Pond Embayment. Ash has been removed from the West Embayment but remains in the other two embayments. The Kingston Recovery Project consists of removing ash from the Emory River and stabilizing the remaining ash until a final disposal remedy can be negotiated with the regulating authorities and the community and implemented.

There are two major pieces of work that have been done to control storm water at the ash spill site. The first activity is the construction of an interim drainage system through the spill ash being constructed in accordance with the Interim Drainage Plan and Controls-Ash Release Area, Rev 1 (April 2, 2009) (Appendix A through C). This drainage system is being constructed to minimize ash migration to the Emory River. Water sampling during and after construction of the drainage system is addressed in a project-level work plan.

The second set of activities is being conducted under the Storm Water Pollution Prevention Plan (SWPPP) that was originally submitted to the State of Tennessee on January 31, 2009 (Appendix D). The latest version of the SWPPP is attached. This plan outlines activities done to facilitate compliance with the Tennessee Department of Environment and Conservation (TDEC) General Permit for Storm Water Discharges Associated with Construction Activities. These activities are conducted across the site to protect water quality.

2.0 Existing Conditions

The existing site conditions are very challenging in regards to storm water management, erosion control and sediment control in the ash release areas. The coal ash is easily erodible with water movement and tends to slough. The site undulates with high and low areas tending to generally slope toward what was Swan Pond Embayment. The West, North and East Embayments continue to carry clean water from upstream into the ash covered areas. Storm water that used to enter the embayment from surrounding areas was initially impounded by the ash but temporary channels were created to alleviate excessive impounding.

In addition, there are construction activities around the site which can impact surface water runoff during rain events. Ash from the dredging operation is being recovered

through a series of waterways and wet ash is being dried on the ash processing area, a flat area near the ash ponds.

The office/support areas drain to existing site ditches and pipes and the discharge eventually discharges to the plant intake channel.

3.0 Site Drainage

Material produced from the dredging activity flows through a series of ditches and two settling areas prior to discharge to the Emory River. The water flows through the ditches while the ash is recovered onto the ash processing area.

The ash processing area is a relatively flat area where ash is recovered from the dredging operation and is allowed to dry. The ash processing area was constructed with a series of wick drains which wicks the water from beneath the ground. The wick drains are tied to a perimeter ditch (filled with shot rock) by the delineation layer. The perimeter ditch carries any water around the processing area back to the ash recovery ditch.

A significant effort is underway to provide drainage through the ash in the embayments. Appendices A through C provide the Interim Drainage Plan and Controls as well as the drawings and calculations.

The embayment drainage efforts have been broken into two components. The first component includes the construction of more permanent channels through the ash as well as two settling basins. Diversion ditches were excavated thru the ash to drain standing water and direct the flows within the ash to settling basins. These settling basin areas collect water that flows thru the ash areas allowing the ash to settle out of solution and discharges water via a surface skimmer back to the Emory River. Check dams are used in this system to allow ash to settle out of the water as it moves from the basin area to the river. The ash areas are evaluated by SWPPP inspections on a twice weekly basis. The use of additional best management practices for maintaining ash west of Dike 2 is evaluated during these inspections. Additional best management practices that are under consideration should the need arise include the following:

Diversion berms / diversion ditches
Gravel log berms
Sand bag barriers
Dugout ditch barrier
Straw bale barrier
Biodegradeable filtration logs
Large sediment traps in ditches in North & East Embayments (north of road)

The second component consists of excavating clean water ditches to carry the clean water (water that does not come in contact with ash materials) around the ash to discharge directly to the Emory River, thereby minimizing the load that is placed on the settling basins. The diversion of the clean water also impacts the volume and velocity of the

water carried through the ash ditches. Once the clean water is diverted the volume and velocity of the water flowing through the ash during high flow events is greatly minimized thus the transport of ash will be minimized. This diversion is less important during low flow events.

Until the clean water diversion system is constructed and implemented, all water is routed through the ash ditches and settling basins or is discharged directly to the Emory River. Once complete, the settling basins will discharge clean water into the clean water diversion ditches for discharge into the Emory River.

4.0 Erosion and Sediment Control

The SWPPP is attached in Appendix D. This document provides a general plan for protecting the adjacent surface water bodies. Both spills from construction activities and sediment and ash migration are addressed. The SWPPP discusses erosion control devices during construction, spill prevention activities, waste management activities, stabilization of disturbed areas, water flow during washing and dust suppression, and housekeeping requirements.

In addition to those activities outlined in the SWPPP, one of the major purposes of the time critical removal actions is to control migration of ash. Removing the ash from the east side of Dike 2 is a key component of any sediment erosion control process. Other ongoing activities that will help with erosion control are sloping the ash that will remain in the failed dredge cell and the embayment until a final decision is made and adding an erosion and dust control measure such as flexterra or vegetation.

The SWPPP outlines inspection and maintenance requirements for erosion control devices. The frequency of inspections is increased during periods of extended rain.

5.0 Health and Safety

Activities conducted under this Site Storm Water Management Plan will be in accordance with requirements of the Site-Wide Safety and Health Plan. In particular, care will be taken during inspection activities for safe footing. Work immediately adjacent to ponds or the river will be done using a personal floatation device.

Appendix A

Interim Drainage Plan & Controls

Tennessee Department of Environment and Conservation
Commissioner's Order, Case No. OGC09-0001

Interim Drainage Plan and Controls - Ash Release Area

Kingston Fossil Plant

Tennessee Valley Authority

April 2, 2009

Revision 1

1.0 Construction Site Description

General Information

On Monday, December 22, 2008, a dike failed at the Tennessee Valley Authority's Kingston Fossil Plant releasing approximately 5.4 million cubic yards of coal ash.

Immediately following the failure of the ash dike, the construction of two temporary dikes was initiated to control the further movement of ash. Weir 1 was installed downstream of the plant in the Emory River and is meant to control underwater creep of ash downstream. Dike 2 is currently under construction in the main embayment and is meant to resist further movement of ash into the main channel. In addition, TVA is working to move ash from the east of Dike 2 to the west behind the dike to prevent mobilization.

Contact Information

The following positions are named as having responsibilities in the plan below:

- **Ash Release Program Administrator (Environmental), (ARPA(E))**: Ron Harned or Malcolm Nelson (865) 755 - 4772
- **Ash Release Liaison**: Rob Crawford 865-771-1569
- **Construction Manager**: Robert A. Summers
- **Environmental Permitting and Compliance**: Lindy Johnson (423) 751-3361 or Cynthia Anderson (423) 871-1666
- **Site Program Administrator (Environmental) (PA(E))**: Cynthia McCowan (865) 717-2531

Interim Drainage Area

Storm water is to be controlled by separating the ash release area into two distinct locations and flows: (1) Run-off from ash-contained areas is denoted as Phase A, and (2) Run-on from surrounding basins is denoted as Phase B. Phase A is to be installed first, and will be immediately followed by Phase B. The total disturbed area is 175 acres. Disturbance in native soil for the Interim Drainage Area is approximately 12.5 acres including settling areas and the water elevations were 737' and 745' msl.

Storm Water Management Phase A - Ash Area

Phase A will be designed and constructed to minimize the release of fly ash due to runoff from the ash-containing area. The ash release area is approximately 175 acres. A curve number (CN) = 55 was used for fly ash.

After the initial incident, channels were excavated in the fly ash to alleviate flooding. These same channels will be used to convey storm water to the settling area(s) and are anticipated to change shape on a daily basis, due to low cohesion and high moisture content of the fly ash.

Major features of this drainage area are two settling area basins. Phase A Settling Area 1 has approximately 8000 cubic yards of storage capacity and will be discharged via two 60-inch corrugated metal stand pipes and 42-inch corrugated metal outfalls. A skimmer device is attached to each standpipe to allow for dewatering of the basins. Phase A Settling Area 2 has a capacity of approximately 16,500 cubic yards with similar stand pipe/outfall structures. Baffles will be implemented to maximize settling.

A recommendation is being made that these channels should be initially inspected by the

Construction Manager's personnel every four hours and after rainfall events of ½" or greater to determine if they need reshaping. After working experience is developed, they should be inspected and maintained on an as-needed basis.

The settling areas are to be formally inspected and documented on a daily basis using the documentation format contained in this plan.

The channels are sized and shaped to minimize material transfer and scour.

Storm Water Management Phase B - Upland Drainage Areas

Phase B will be constructed so that water from upstream watersheds that presently flows onto the fly ash area will be intercepted and rerouted to the Emory River, minimizing its contact with ash. The upstream watershed areas comprise approximately 1500 acres, 1093 acres, and 417 acres, respectively, in the Western Area, Northern Area and Eastern Area. The weighted curve number of CN=67 was calculated from wooded, pasture, and residential curve numbers.

Diversion barriers will be located in the North and East embayments upstream of the ash deposits to collect and prevent run-on of "clean" water into the ash. These barriers may be constructed using clean rock or by using a material called Fabriform that sets up; either will be applied to the leading edge of the deposited ash. A separation curtain is an option that is being assessed in the East embayment. Ash has been removed from the Western; therefore a diversion barrier is not required. Channels conveying water to Emory River/Watts Bar Reservoir will be lined as needed with a suitable material to prevent scouring of ash or exposed trench soils. In addition, where lining the channels is not feasible, TVA will widen these channels in order to reduce the velocity and scour in the channels.

At several locations, these channels will cross Phase A channels. These crossings will be achieved by either piping across the channels to prevent the co-mingling waters from the fly ash and upland run-on.

Clean water channels will converge and eventually cross Dike 2 through properly sized culverts that will accommodate a 5-year 24-hour storm event. Any overflow from this clean water channel will flow into Phase A ash area and will be settled to remove ash and decanted in the Phase A settling areas before discharge to the Emory River.

Construction of channels for Phase B will necessitate clearing of riparian vegetation. An aerial showing the possible areas for tree/vegetation removal is included in the Attachments as Figure 1.

Construction Schedule and Sequence

Phase A and B construction will be completed as expeditiously as possible to minimize transport of ash.

1. Construct settling areas and other features for Phase A.
2. Install Best Management Practices (BMPs) prior to disturbing native soils in Phase B.
3. Construct other required drainage features including ditches, channels, rock check dams and settling areas.

2.0 Estimates of the area on site that is expected to be disturbed by excavation, grading, or other activities.

The size of the ash-containing area is approximately 175 acres. Actual earth disturbing activities will be considerably less.

3.0 Any data describing the material and how it will dictate control measures.

The majority of the soil in the project area is ash fill with an estimated runoff coefficient of 0.55. The smallest particle size expected to be settled out in the stilling pond is approximately 9 microns.

4.0 Erosion & Sediment Control Plan

General Erosion & Sediment Control Measures

- Material tracking onto public roads will be minimized. If KIF material escapes the construction site, it must be removed prior to posing a safety or environmental concern. Daily checks of the road surrounding the project and plant access roads will be conducted and immediate corrective action pursued if material migrates to road surfaces. Material tracked onto public roads will be removed by the end of that workday.

- Materials that leave the site but do not reach the receiving stream must be removed so that they are not washed into streets or any receiving streams. Contact Environmental Permitting and Compliance if material reaches receiving stream.

- A water truck will be present during construction or other measures utilized to provide dust suppression, if required. Dust suppression methods will be used for all disturbed areas that are being worked or are causing dusting. The water truck should run at least once a day during dry periods as needed, but may be required to run several times a day if necessary to control dusting.

- Litter, debris, and/or chemicals will be picked up promptly and disposed of properly.

- Portable sanitary units will be provided for use by all workers as needed throughout the life of the project. All sanitary waste will be regularly collected from the portable units by a licensed sanitary waste management contractor.

- Storm water discharges will not have visible floating scum, oil, or other matter or cause an objectionable color contrast in the receiving stream. If such conditions are observed, controls will be inspected and repaired or reinforced as necessary and the Construction Manager should be notified immediately

- Any situation that arises and has not specifically been mentioned above will be addressed by the Construction Manger in consultation with the on-site Project PA(E) and Environmental Permitting and Compliance. If a change in project scope occurs or if the plan is found to be deficient or if it interferes with dredging operations, this plan will be modified accordingly.

Inspections

- Initially, operational inspections of the settling area basins in Phase A will be made multiple times per day to determine maintenance needs by personnel within the Construction Manager's purview. (i.e., how much maintenance is needed to prevent the ash refilling channels and settling areas.) One formal inspection per day will be documented for each Phase A settling area using the inspection documentation provided in the attachments. If possible, the inspection frequency of the ponds will be reduced to daily if it is determined a reduced frequency is sufficient.

- All controls (silt fence, settling areas) will be formally inspected, inspections documented and repaired as necessary, a minimum of two days per calendar week, 72 hours apart. Non-structural material control devices (geotextiles, silt fencing, etc.) will be cleaned as indicated on the construction drawings.

- A certified construction inspector(s) to be appointed by TVA will be responsible for the formal, documented inspections. Inspectors must have successfully completed and be current on (within 3 years) the "Fundamentals of Erosion Prevention and Sediment Control" training.

- The results of these formal inspections and necessary repairs will be logged on inspection sheets. Copies of the inspection reports will be provided to the Construction Manager and the Ash Release Liaison on a weekly basis, when the sheet has been filled out, and/or when construction is complete. Repairs to any controls will be made as soon as practicable before the next rain event, but no later than 7 days after any deficiency is noted. The Ash Release Liaison will provide all inspection forms to the site PA(E) upon completion of the project.

- If the control appears to be inadequate for the job, notify the Construction Manager, who may in turn consult with Environmental Permitting and Compliance.

- Inspection sheets are located in the Attachments, including a sample filled out form. Areas in Phase to be inspected include outfalls, silt fences and other controls, vehicular entrance points, documentation that weekly litter pick up occurred, stock piled soil or material storage area containment, etc. Note instruction that the scope of inspection must be documented so it is expected that multiple inspection forms will be in use for the project.

- Erosion control measures will be inspected and maintained until vegetation in the disturbed areas has returned to the pre-construction conditions or the site is stable.

- All debris and temporary erosion control devices will be removed when stabilization measures are complete and persistent vegetative cover or surface stabilization is achieved.

5.0 Spill Prevention, Controls, Response, and Recordkeeping

- Stored materials that cannot contaminate storm water may be stored in the open. However, the lay down area for these items must be prepared so that no material leaves the site.

- Stored petroleum and other liquid products must have secondary containment if the aggregate quantity in one spot is 55 gallons or greater.

- The TVA Construction Manager will ensure that equipment necessary for spill cleanup for their respective materials will be present on the site at all times. Equipment and materials will include but not be limited to brooms, shovels, rags, absorbent materials, and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on-site. A signed inventory sheet will be provided to the Ash Release Liaison.

- In the event of a spill of oil, hazardous substances, or other pollutants, the person discovering the spill must notify the Construction Manager and the Ash Release Liaison or Ash Release PA(E). These in turn are responsible for notifying the site PA(E) and the TVA Operations Duty Specialist. The ODS will ensure that the National Response Center, Tennessee Emergency Management Agency, and the Spill Prevention Control and Countermeasure (SPCC), Environmental Compliance are notified.

- The Ash Release Liaison after consultation with the site PA(E) must also contact the local Environmental Field Office (Division of Water Pollution Control) within 14 days of the release to storm water or the receiving stream.

- Records: The required records will be kept on file in the construction office and the final, complete set of records will be transferred to the Site PA(E) at the end of the project. TVA will maintain these records indefinitely.

ATTACHMENTS

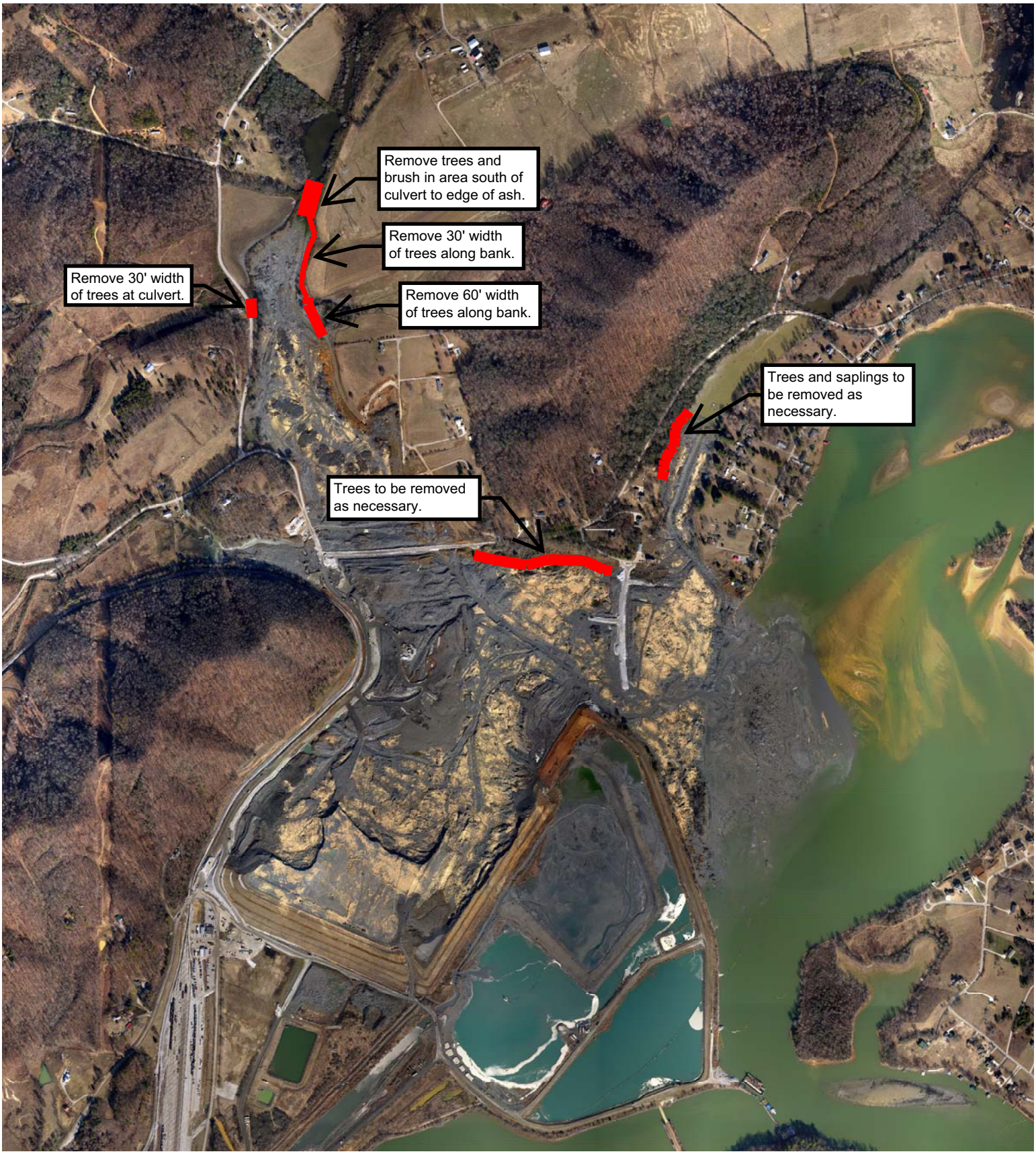
Locations of Riparian Vegetation for Possible Removal

Inspection Forms for Phase A Settling Area Basins

Inspection Forms for Phase B controls

Example Phase B Inspection Form (filled out)

Tree Removal Map for the Interim Drainage Plan
Kingston Fossil Plant
Aerial Dated 02/25/2009



INSPECTION AND MAINTENANCE FORM – PHASE A SETTLING AREA BASIN #1

Inspections of the Phase A stilling pond must be performed and documented daily. Record the date of inspection, include the inspector's name and the condition of the stilling pond and if it needs to be cleaned out or repaired. Document when the corrective actions were taken or repairs made in the Date Done column.

Present to TVA Construction Manager once per month, when sheet has been filled and/or construction is complete. TVA Construction Manager will need to provide a copy to the Ash Release Liaison when full and/or monthly. All records will be turned over to the Site PA(E) by the Ash Release Liaison when the project is complete.

Area being inspected:	**Phase A Settling Area Basin #1**

Date of Inspection	Time of Inspection	Describe Condition	Repairs or cleaning?	Date Done*	Inspector's Signature/Title

*Repairs must be completed as soon as possible

INSPECTION AND MAINTENANCE FORM – PHASE A SETTLING AREA BASIN #2

Inspections of the Phase B stilling pond must be performed and documented daily. Record the date of inspection, include the inspector's name and the condition of the stilling pond and if it needs to be cleaned out or repaired. Document when the corrective actions were taken or repairs made in the Date Done column.

Present to TVA Construction Manager once per month, when sheet has been filled and/or construction is complete. TVA Construction Manager will need to provide a copy to the Ash Release Liaison when full and/or monthly. All records will be turned over to the Site PA(E) by the Ash Release Liaison when the project is complete.

Area being inspected:	**Phase A Settling Area Basin #2**

Date of Inspection	Time of Inspection	Describe Condition	Repairs or cleaning?	Date Done*	Inspector's Signature/Title

*Repairs must be completed as soon as possible

INSPECTION AND MAINTENANCE FORM – Phase B Erosion and Sediment Controls

Inspections of the Phase B erosion controls must be performed twice per week, 72 hours apart. Record the date and time of inspection, include the inspector's name and the condition of the control and if it needs to be repaired cleaned out. Document when the corrective actions were taken or repairs made in the Date Done column. (See Sample Form below.)

VERY IMPORTANT: You need to document the scope of what you are inspecting. Set up separate sheets according to the area being inspected; for example, separate sheets for the Eastern retention berm, Phase B Basin #2, Phase B channel, etc.

Give to TVA Construction Manager once per month, when sheet has been filled and/or construction is complete. TVA Construction Manager will need to provide a copy to the Ash Release Liaison when full and/or monthly. All records will be turned over to the Site PA(E) by the Ash Release Liaison when the project is complete.

Area being inspected:	

Date of Inspection	Time of Inspection	Describe Condition	Repairs or cleaning?	Date Done*	Inspector's Signature/Title

*Repairs must be completed as soon as possible

SAMPLE FORM

INSPECTION AND MAINTENANCE FORM – Phase B Erosion and Sediment Controls

Inspections of the Phase B erosion controls must be performed twice per week, 72 hours apart. Record the date and time of inspection, include the inspector's name and the condition of the control and if it needs to be repaired cleaned out. Document when the corrective actions were taken or repairs made in the Date Done column.

VERY IMPORTANT: You need to document the scope of what you are inspecting. Set up separate sheets according to the area being inspected; for example, separate sheets for the Western embayment retention berm, Phase B Northern embayment silt fence, etc.

Give to TVA Construction Manager once per month, when sheet has been filled and/or construction is complete. TVA Construction Manager will need to provide a copy to the Ash Release Liaison when full and/or monthly. All records will be turned over to the Site PA(E) by the Ash Release Liaison when the project is complete.

Area being inspected:	***Phase B Northern embayment silt fence***

Date of Inspection	Time of Inspection	Describe Condition	Repairs or cleaning?	Date Done*	Inspector's Signature/Title
2/14/09	*08:17*	*1st 500 feet of silt fence 1/2 way full*	*Cleaned out*	*2/16/09*	*Bill Smith, Site erosion inspector*

*Repairs must be completed as soon as possible

Appendix B

Interim Drainage Drawings
(on file with Jacobs Engineering)

Appendix C

Interim Drainage Calculations
(on file with Jacobs Engineering)

Appendix D

Storm Water Pollution Prevention Plan
(SWPPP)

Storm Water Pollution Prevention Plan

Fly Ash Removal Project

Kingston Fossil Plant

Tennessee Valley Authority

May 28, 2009

Revision 1

1.0 Purpose of the Construction Storm Water Pollution Prevention Plan (SWPPP)

The Storm Water Pollution Prevention Plan (SWPPP) is being prepared to facilitate compliance with the Tennessee Department of Environment and Conservation (TDEC) General Permit for Storm Water Discharges Associated with Construction Activities.

Compliance with the SWPPP is mandatory for the following reasons:

- To prevent receiving Notices of Violations;
- To protect water quality, which may be adversely impacted by sediment reaching receiving streams; and
- To prevent project delays caused by Cease and Desist orders, or being required to stop construction and obtain an individual permit, which could severely delay the project.

Retaining sediment on-site is paramount for compliance. This SWPPP contains specific guidance on controls being selected as well as design and installation requirements. A copy of the plan as well as inspection records must be kept on-site and provided to the plant Program Administrator (Environmental) PA(E) or Project PA(E). The Erosion and Sedimentation Control Specialist for this construction activity is Butch Parton at 865-660-4458.

2.0 Construction Site Description

a) Description of Construction Activity

General Information

On Monday, December 22nd, a dike failed at the Tennessee Valley Authority's Kingston Fossil Plant releasing approximately 5.4 million cubic yards of coal ash. Tennessee Valley Authority (TVA) and Roane County Office of Emergency Management and Homeland Security responded immediately, and response and recovery continue.

TVA's Kingston Fossil Plant is located on the Emory River close to the confluence of the Clinch and Tennessee Rivers near Kingston, Tennessee. Construction of the plant began in 1951 and was completed in 1955.

Ash Containment Area

Ash, a by-product of a coal-fired power plant, is stored in containment areas. An apparent dike failure (yet to be determined) caused the contained ash to be to be displaced.

At the time of the slide, the area contained approximately 9.4 million cubic yards of ash. The Kingston ash ponds are visually inspected each day. Quarterly solid waste inspections are completed by State personnel in accordance with permitting requirements.

Immediately following the failure of the ash dike, the construction of one temporary dike and one temporary weir was initiated as emergency features to control the further release of ash. Weir 1 was installed upstream of the plant intake channel in the Emory River and is meant to control underwater creep of ash downstream. Dike 2 is in the main embayment and is meant to resist further movement of ash into the main channel. The purpose of Revision 1 of this document is to provide updates that have occurred since the previous SWPPP revision and to include an additional ash processing area in the work be being performed at plant Kingston.

Ash Processing Area 1

TVA has installed an ash processing and temporary ash storage area (in phases) to support fly ash removal operations. The SWPPP will continue to support construction activities and will be revised for the latter phases as needed. The Ash Processing Area 1 is located within the triangle area bordered by the existing ash disposal area, the ash sluice channel, and the plant entrance road (see Attachment 5 drawings SK-SWPPP-002 and 003). Previously the area contained several abandoned ball fields, a closed ash disposal area with soil cover, and two chemical ponds. The area is currently being used for temporary storage of ash removed from the west side of the failed dredge cells area and includes an area on the Southeast side of the ash disposal sluice trench. The disturbed area is approximately 68 acres (see Table 3.1 on Page 6 of this document).

The construction plan is a phased development. A railroad spur will be installed along the north and west perimeter of the triangle area. Type C silt fence will be utilized in the areas where the drainage surrounds the containment area. Ash Processing Area 1 includes the area shown in the Attachments, which is located on both the Northwest and Southeast sides of the ash sluice channel and the remaining portion of the triangle area as shown in the Attachments.

The SWPPP addresses the site-specific requirements to manage storm water runoff from the Ash Processing Area 1 construction activities.

Ash Processing Area 2

TVA proposes to install an additional ash processing area that includes a borrow area, surcharge gravity return line, two topsoil stockpile areas, and site access roads northeast of the existing Phase 1 Gypsum Disposal Area (see Attachment 5 drawings SK-SWPPP-008, 009, 011 and 012). The purpose of Ash Processing Area 2 is to construct a supplemental area (in phases) to process and provide temporary storage for large amounts of ash during the recovery efforts. The SWPPP will cover the construction activities and will be revised for the latter phases as needed. The project area will be located to the east of the 161-KV switchyard in an area known as the peninsula and currently consists of woods on the hill tops, light vegetation, and grass. The area is also currently being used as a construction parking area, stone stock pile, and temporary debris storage. The proposed borrow area will be permitted and located on the peninsula adjacent to the construction activities while the spoil relocation materials will be transported to low areas on the peninsula. The disturbed area is approximately 99 acres (See Table 3.2 on page 6 of this document).

The Ash Processing Area 2 construction plan is to be a phased development consisting of two ash recovery areas to be located on the west and east sides of the dredged ash recovery channel and an ash operational area that makes up the remaining of the area (see Attachment 5 drawing SK-SWPPP-008).

The SWPPP addresses the site-specific requirements to manage storm water runoff from the Ash Processing Area 2 construction activities.

The spoil materials from the site grading activities that are placed in areas other than the designated areas shown in Attachment 5 drawings SK-SWPPP-008 and 009 will utilize a double row of Type C silt fence, construction exit and temporary and permanent vegetation to contain the sediment within the soil stock pile area.

Interim Drainage Area

Stormwater is to be controlled by separating the incident area into two distinct locations and flows: (1) Run-off from ash-contained areas is to be called Phase A, and (2) Run-on from surrounding tributary watersheds is to be called Phase B.

Storm Water Management - Phase A

Phase A will be designed and constructed to minimize the release of fly ash from the ash contained area runoff.

The main features of this drainage area are drainage channels and settling areas. After the initial incident, channels were excavated in the fly ash to alleviate flooding. These same channels will be used to convey storm water to the settling areas and are anticipated to change shape on a daily basis, due to low cohesion and high moisture content of the fly ash. For this reason, these channels were initially inspected by Construction Manager's personnel. The settling areas will be inspected regularly according to TDEC standards.

The settling areas have been sized according to TDEC's standard regulations and contain baffles to reduce basin short-circuiting and maximize detention time to improve settling.

Storm Water Management - Phase B

Phase B will be constructed so that water from upstream watersheds that presently flows onto the fly ash area will be intercepted and rerouted to the Emory River without direct contact with the ash. The intent of this action will be to minimize the contamination of additional waters and reduce the transport of fly ash off the incident site.

A diversion berm will be located in the north embayment upstream of the ash deposits to collect and prevent run-on of the "clean" water into the ash. Carved within this berm will be a channel that will convey the storm water to the Emory River. This channel will be lined where required with a suitable material to prevent the scour of exposed trench soils. At present all ash within the western embayment has been removed to Swan Pond Road. The western embayment Phase B channel is to begin at the culvert passing under Swan Pond Road. The eastern embayment channel is to be constructed along the western shore of the embayment bank to convey the water to the Emory River.

At locations where Phase B channels cross Phase A channels the crossings will be achieved by piping to prevent the co-mingling waters from the fly ash and "clean" water ditches.

Clean water channels from the Northern Embayment and Western Embayment will converge before passing though Dike 2 culverts. Any overflow from the Phase B clean water channels will flow into the Phase A ash area and will be settled and decanted to remove entrained ash in the Phase A settling areas before discharging to the Emory River.

b) Construction Schedule

The overall timeframe for construction is approximately one year. The construction schedule includes approximately six months for the initial site preparation starting February 2009 for construction in the Ash Processing Area 1, approximately nine months for the initial site preparation starting in February 2009 for construction in the Interim Drainage Area and approximately six months for the initial site preparation starting in June 2009 for construction in the Ash Processing Area 2. Some of these early activities include constructing the new ditches, channels, berms, settling areas, ash operational areas, ash recovery areas, sediment traps and sediment basins. After installing proper drainage measures, the site will be prepared for removing the ash. The removal of fly ash will begin once these activities are complete. The activities listed above are expected to be complete by February 2011.

The engineering and construction efforts are being completed in phases. It is the intent of this SWPPP to encompass, in general, all activities and areas related to this project. However, the detailed design has not been completed for the entire project. The SWPPP will be revised accordingly to incorporate future work as detailed design is completed. To that effect, activities referenced as "FUTURE" will be included within the SWPPP to the extent that the details are known at the time the SWPPP revision is prepared.

c) Construction Sequence

The major activities involved for construction at this facility are listed below. Commencement dates for major activities, the dates that construction ceases temporarily and permanently in each area of the project, and the date that stabilization activities begin will be listed in the Major Activities Log (see Attachment 3). Note that related small construction activities around the spill that are necessary for the overall project may be performed in sequence or in parallel. The other phases will be future construction activities and the SWPPP will be revised prior to construction of these phases, as more details become available. The Construction Manager will determine the exact construction sequence. The Major Activities Log will have records of major grading and stabilization dates. The Construction Manager will track construction activities using this log. All disturbed areas will be permanently stabilized as individual phases of the project are completed and at the end of the project before erosion controls are to be removed.

1. Install Best Management Practices (BMPs) prior to earth moving activities. See Attachment 5, Sheets SK SWPPP-003, 005, 006, 008, 009, 011 and 012 for locations of proposed BMPs.

2. Construct required drainage features including ditches, channels, sediment traps, settling areas and sediment basins.

3. Obtain fill from approved offsite sources for construction.

4. Utilize existing permitted onsite borrow areas for early construction of base for Ash

Processing Area 2 and roadway construction. Note: The onsite borrow area covered under permit for the Gypsum Disposal Area (Phase 1) is to be included under this SWPPP (FUTURE ACTIVITY).

5. Excess excavated soil will be used or stockpiled at the existing spoils area and the proposed spoil areas on the peninsula near the existing gypsum area, or at the existing onsite borrow areas. If stockpiled, a double row of Type C silt fence, temporary and permanent vegetation will be used to prevent sediment from migrating from the area as needed (FUTURE ACTIVITY).

6. Construct and install discharge pipe line from the Dredge Ash Recovery Channel in the Ash Processing Area 2 to the Main Ash Pond (FUTURE ACTIVITY).

7. Construct and/or improve approximately 5,000 feet of access road to the various areas associated with the ash removal project (FUTURE ACTIVITY).

    - Improve surfaces to allow for pipe line installation along the lower roadway around Dike C.
    - Relocation of the cemetery access road around the Ash Processing Area 2.
    - Widen roadbeds to allow haul traffic and general plant traffic, improving the road surfaces, and install ingress and egress to soil stock pile areas.

8. Construct approximately 4100 feet of railroad spur to Ash Processing Area 1 (FUTURE ACTIVITY).

    - Widen roadbeds to allow haul traffic and general plant traffic, improving the road surfaces, and medication of existing haul road.
    - Improve subgrade to allow for rail spur base installation along the perimeter around Ash Processing Area 1.

9. Install liners, where required.

10. Grade area to facilitate ash removal.

The SWPPP will be revised upon completion of the design and prior to construction for activities listed above.

3.0 Estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities.

The estimated area of the Kingston Fossil Plant is approximately 800 acres. The area disturbed by the construction of the Ash Processing Area 1 and Ash Processing Area 2 are approximately 68 acres and 99 acres respectively, as shown in Table 3.1 and Table 3.2 on pages 6 and 7 of this document. The area disturbed by construction activities associated with the Interim Drainage Area is approximately 175 acres as shown in Table 3.3 on page 8 of this document. The Construction Manager will determine the exact construction sequence. The Major Activities Log will have records of major grading and stabilization dates. The Construction Manager will track construction activities using this log and will ensure that no greater than 50-acres is open and under construction at any time. All disturbed areas will be permanently stabilized to the extent practicable, as individual phases of the project are completed. Permanent stabilization, such as grass seeding, will be completed before erosion

controls are to be removed. Temporarily stabilization will be provided as appropriate. The area that is expected to be disturbed by excavation, grading, or other construction-related activities is summarized in the Runoff Coefficient Calculations in Attachment 4.

Table 3.1 Ash Processing Area 1

Activity Description	Disturbed Areas Draining to NPDES Outfall 001 (acres)
Ash Recovery Area	25
Operational Ash Area	42
Construction Facilities	1
Total Acres	68

Table 3.2 Ash Processing Area (APA) 2

Activity Description	Disturbed Areas Draining to Outfall in Clinch/Emory River (acres)	APA 2 Outfall 001 (acres)	APA 2 Outfall 002 (acres)	APA 2 Outfall 003 (acres)	NPDES Outfall 001 (acres)
Ash Recovery Area	15				15
Operational Ash Area	34	34			
Borrow Area	18	18			
North Stockpile Area	3	3			
South Stockpile Area	17		7	10	
Access Roads	10	8	2		
15' Gravel Roadway / Discharge Pipe Installation	2				2
Total Acres	99	63	9	10	17

Activities in the Ash Processing Area 2 will drain through three unnumbered APA outfalls to the Clinch/Emory River and through the Main Ash Pond to Outfall 1.

Table 3.3 Interim Drainage Area

Activity Description	Disturbed Areas Draining to Channels/Settling Areas (acres)	Interim Outfall 1 (acres)	Interim Outfall 2 (acres)	Interim Outfall 3 (acres)
Northern Embayment B Channel	2		2	
Western Embayment B Channel	1		1	
Eastern Embayment B Channel	1			1
Combined Embayment B Channel	3		3	
Ash Embayment 1A Channel/Settling Area	2	2		
Ash Embayment 2A Channel/Settling Area	4		4	
Ash Disturbed Area	162	55	107	
Total Acres	175	57	117	1

Activities in the Interim Drainage Area will drain through three unnumbered interim outfalls to the Emory River.

4.0 A description of the topography of the site including an estimation of the percent slope and the variation in percent slope for each outfall.

The general topography of the Kingston Fossil Plant varies across the site. In areas where the majority of the construction activities occur, the terrain will be relatively flat (<2%). The ash and top soil will be stacked in sufficient lifts with slopes, varying from flat to 3(H):1(V) or 33%.

The Ash Processing Area 1 drains to the Ash Sluice Trench that is conveyed into the Main Ash Pond and then discharges through NPDES permitted outfall 001.

The Ash Recovery Area for Ash Processing Area 2 drains to the Dredge Ash Trench that is pumped into the Main Ash Pond and then discharges through NPDES permitted outfall 001. The Ash Operational Area drains into a low point, through a dewatering structure, is pumped to a diversion ditch, then processed though a sediment trap and released through an outlet pipe that drains to the Clinch River thru Ash Processing Area 2 outfall 001 (Future NPDES Outfall).

The Interim Drainage Area will drain through three interim outfalls (see Attachment 5 sheet SK-SWPPP-005 and 006) to the Emory River at a slope of approximately less than 1%.

5.0 Any data describing the soil (including any fill material) and how soil type will dictate control measures. Describe expected storm water or combined discharge quality.

The project site is located in the City of Harriman in Roane County, Tennessee. According to soil borings and soils mapping of the area, the soils in the Interim Drainage Area and Ash Processing Area 1 are labeled Ash Disposal Soil (ASD). The soil in Ash Processing Area 2 is labeled Waynesboro Loam (WaC). The majority of the soil in the project area is ash fill and topsoil.

The quality of discharge from the properly implemented and maintained erosion and sedimentation control measures is expected to be sufficient to comply with the terms and conditions of this permit.

The soils used for fill will be classified as random fill or a mixture of bottom and fly ash. Soil sampling and testing was previously performed for the on-site borrow areas. The borrow area testing shows that there are lean clay and fat clay residuum underlying the topsoil. Chert was also encountered in the clay layers. The residuum encountered in the testing consisted of red-brown, reddish-orange, orange-brown, brown and tan, clay, silt, and sand with varying amounts of chert fragments. The fill soils consisted primarily of brown, red-brown, and reddish orange, silty clay with gravel and a few chert fragments. These soil types have been used as cover material for ash disposal areas on the KIF reservation. These are fine-grained cohesive soils that compact readily. TVA's experience at Kingston has been that the onsite soil supports the growth of vegetation. As such, the soil type does not dictate that any unusual or special measures are taken to minimize erosion. Routine Best Management Practice will be the primary method to ensure discharge quality is not affected by the construction project. The expected storm water discharge quality is to be essentially the same as that before construction begins.

6.0 An estimate of the runoff coefficient of the site after construction activities are complete & description of how runoff will be handled to prevent erosion at the permanent outfall & receiving stream.

The Ash Processing Areas 1 and 2 are sparsely vegetated. The Interim Drainage Area is covered with fly ash. After the development of the proposed project area, the pre- and post-development runoff curve numbers of the site were calculated as provided in Attachments 4.

Control measures have been selected and utilized to control runoff in order to minimize erosion and reduce the displacement of ash and soil that would otherwise flow into the receiving stream during construction. The primary outfall to the receiving stream at plant Kingston is NPDES Permitted Outfall 001 which is the permanent outfall from the ash pond. Ash pond effluent is discharged through diffuser pipes that drain to the plant intake channel on the Emory River. These diffuser pipes are located beneath the surface of the water and are designed to distribute the flow across the channel to ensure that the flow of plant effluent is not concentrated in the receiving stream.

The channels in the Interim Drainage Area will be lined as necessary to prevent erosion. The channels will be piped through Dike 2, and are to discharge directly to the Emory River (see Attachment 5 sheets SK-SWPPP-005 and 006).

7.0 Erosion prevention & sediment control map w/proposed construction area clearly outlined, boundaries of the project, streams, wetlands, sinkholes, drainage patterns, approximate slopes after grading, and location of major structural and nonstructural controls. Include all outfalls/locations where runoff leaves the site (not just the NPDES permitted outfalls).

The site map and sketches SK-SWPPP-001 through 012 (See Attachment 5) depict the construction areas. The Ash Processing Area 1 will drain to the existing ash pond and discharge to the Emory River through NPDES Outfall 001. The Interim Drainage Area drains directly into the Emory River, through Interim Outfalls 001, 002 and 003. Ash Processing Area 2 process water will be pumped to the existing ash pond and discharge through NPDES Outfall 001. APA 2 001, APA 2 002 and APA 2 003 will drain to the Clinch River.. The Ash Operational Area will drain to a low point, through a dewatering structure, then pumped to a diversion ditch, then processed though a sediment trap and released through an outlet pipe that drains to a new outfall on the Clinch River that will require additional NPDES permitting (see Attachment 5 Project Outfall map that includes the location of all project related outfalls).

8.0 Description of any discharge associated with industrial activity other than construction storm water that originates onsite and the location of that activity. Include NPDES and TMSP numbers.

The site discharges process wastewater and storm water associated with industrial activity (coal-fired, steam electric generation) in accordance with NPDES permit number TN0005452 (001) and the Tennessee Stormwater Multi-Sector General Permit for Industrial Activities (TMSP) permit number TNR051787. There is no additional source of storm water (other than construction storm water) or process wastewater on the plant site not under the control of the operator.

9.0 Identify name of receiving water & approximate size and location of any affected wetland(s). Describe proposed alterations to these waters and list ARAP tracking numbers. Identify buffer zones if applicable (303(d) listed streams or high quality streams)

Interim Drainage Area

The receiving water for the Fly Ash Removal Project is Watts Bar Lake (Emory River). The affected wetland area in the west embayment is approximately 4 acres of forested wetlands. These wetlands will be restored after the removal of ash. These waters are not 303(d) impaired for sediment or high quality streams. The ARAP tracking numbers will be added to future SWPPP revisions as they are obtained.

Ash Processing Areas

The receiving water for these areas is Watts Bar Lake (Emory River). The wetlands in this area are not affected, and these waters are not 303(d) impaired for sediment or high quality streams.

10.0 Erosion Control Plan

A. Erosion Control During Construction

General Erosion & Sediment Control Measures

- Erosion and Sediment Controls will be designed to keep sediment on-site. Control measures must be properly selected, installed, and maintained. If a measure proves to be ineffective, it must be replaced or modified. See Attachment 5 Sheet SK-SWPPP-007 and 010 for specific erosion and sedimentation controls

- Erosion and Sediment Controls must be in place and functional before any activities disturbing earth begins, and must be maintained throughout the construction period. Temporary measures may be removed to facilitate work but must be replaced after the work or at the end of each workday.

- Construction will be sequenced to minimize the exposure time of the disturbed area. Existing vegetation will not be removed or disturbed more than 10 days before clearing and excavation begins, unless the area is seeded and mulched. These activities must be logged in the Major Activities Log, which is included in the Attachments.

- Clearing/grubbing must be held to the minimum necessary for grading and equipment operation.

- Silt fence, settling areas, and other appropriate controls including temporary cover and seeding will be used as needed to minimize exposure of soil and to prevent eroded soil from leaving the work area.

- Upland storm water diversion measures will be used to control run-on as needed. These will be installed prior to or concurrent with construction and the construction drawings will be updated as needed. Refer to SWPPP drawings (included in Attachments) for details concerning storm water diversion measures.

Roads and Access Areas

- Access roads for construction currently exist. Existing roads will be improved with crushed stone, concrete, or asphalt, if necessary. When necessary, riprap, rock check dams, or berms will be used to control erosion caused by runoff. Runoff water will be diverted onto stable areas, or other devices will be used to control erosion at the discharge location.

- Sediment tracking onto public roads will be minimized by the use of construction exits. If sediment escapes the construction site, it must be removed prior to posing a safety or environmental concern. Daily checks of the road surrounding the project and plant access roads will be conducted and immediate corrective action pursued if sediment migrates to road surfaces. Sediment tracked onto public roads will be removed by the end of that workday.

Inspections and Maintenance

- All erosion controls will be inspected and repaired as necessary, a minimum of two days per calendar week and a minimum of 72 hours between inspections. Sediment control devices (storm water pond, silt fencing, etc.) will be cleaned as indicated on the construction drawings. A certified TN EPSC Level 1 inspector, whom is to be appointed by TVA, is responsible for the inspections. The qualified personnel who have a general understanding of erosion controls must perform the inspections. Inspectors must have successfully completed the "Fundamentals of Erosion Prevention and Sediment Control" course or an equivalent course. The results of these inspections and necessary repairs will be logged on inspection sheets. Copies of the inspection reports will be provided to the Construction Manager on a weekly basis, when the sheet has been filled out, and/or when construction is complete. An example inspection sheet is located in the attachments. Areas to be inspected include outfalls, drainage locations, silt fences and other controls, inlet protection, vehicular entrance points, weekly litter pick up, stock piled soil, material storage areas, disturbed areas not finally stabilized, etc. Use a **separate** sheet for each area or control being inspected. For example, the silt fence would have its own sheet(s) so that a running record of the condition of that particular area would be segregated from the documentation on a rock laydown area. Inspection sheets will be maintained in a log by the Construction Manager.

  During prolonged rainfall, daily inspections are suggested and repairs will be made as needed. The construction inspector or the designee will ensure that inspections are made on non-work days (weekends and holidays) if necessary. The official rainfall amount will be the rainfall as recorded at an onsite gage to be installed and maintained for the life of the construction project. Records of rainfall gage readings will be maintained in a log by the Project Manager (see example sheet in Attachments).

  Copies of rainfall logs and inspection records will be provided to the Project PA(E) at the end of each month for the life of the project. A copy of the major activity log will be provided to the Project PA(E) on a monthly basis. These records will be maintained on-site with the environmental records for a minimum of 10 years after the notice to terminate coverage under the general permit has been filed in accordance with the TVA EMS procedures.

  Repairs to any controls will be made as soon as practicable before the next rain event, but no later than 7 days after any deficiency is noted. If device appears to be inadequate for the job, notify the Construction Manager.

  Any modifications to this SWPPP that are required in response to inspections will be implemented within 14 days following the inspection.

  Devices will be cleaned out when they reach 50% of their design capacity.

Stabilization Requirements

- All disturbed areas will be stabilized as expeditiously as possible following completion of construction work in the area, but no later than 7 days after construction has permanently ceased (unless frozen ground conditions exist). Measures are required if construction temporarily ceases and will not commence again in 15 days. Record dates for construction ceasing and stabilization practices commencing in the Major Activities Log in the

Attachments. Final stabilization will be gravel surfacing and will be detailed in the Kingston Solid Waste Closure Plan as required by commissioner order number 0GC09-0001.

Temporary Seeding

Winter (9/15 - 4/15)	
Annual Ryegrass	80 lbs/acre
White Clover	10 lbs/acre
Summer (4/15 - 9/15)	
*Korean Lespedeza	20 lbs/acre
Foxtail Millet	20 lbs/acre
OR	
Red Clover	20 lbs/acre
Weeping Lovegrass	10 lbs/acre
Unsuitable Growing Season	
Mulch (without seeding)	95% continuous coverage or greater
Mulch (with seeding)	75% soil coverage

Final Seeding

Spring (3/15 - 5/15) & Fall (8/15 - 10/15):	
Rebel Fescue	40 lbs/acre
Hard Fescue	10 lbs/acre
White Clover	5 lbs/acre
Summer (5/15 - 8/15):	
Bermuda Grass (hulled)	40 lbs/acre
*Korean Lespedeza	10 lbs/acre

*Korean Lespedeza will not be used in landfill areas.

Fertilizer: Ureaform (38-0-0) at 200 lbs per acre with either (15-15-15) placed at 400 lbs per acre or (6-12-12) at 600 lbs per acre.

Lime: Agricultural limestone at 2 tons per acre or hydrated lime at 1 ton per acre.

Straw or mulch shall be required to facilitate cover seeding. Straw or mulch shall be applied at a rate of 2-1/2 tons per acre.

Soil and Sediment Control/Sediment Migration

- Silt fences or other measures will isolate any stockpiled soil to prevent soil movement.
- Sediments that leave the site but do not reach the receiving stream must be removed so that they are not washed into streets or any receiving streams. Contact Environmental Compliance if sediment reaches receiving stream.

Dewatering of Work Areas/Vehicle Washing & Maintenance/Dust Suppression

- During dewatering of work areas (If required), all water discharge will be directed to the existing ash pond or dispersed into a temporary sediment trap for overland flow as shown in the Attachments. Regardless of the method chosen, the discharger will ensure that discharge is not erosive and does not carry any visible traces of sediment into any receiving stream

- All water resulting from wheel wash stations will be removed directed to the coal yard sump which is pumped to the Main Ash Pond. No detergents are to be used in on-site vehicle wash downs. No materials used for vehicle maintenance are to be allowed to reach surface waters.

- A water truck will be present during construction to provide dust suppression, if required. Water must be dispersed over all disturbed areas that are being worked or are causing dusting. The truck should run at least once a day during dry periods, but may be required to run several times a day if necessary to control dusting.

Housekeeping Requirements

- Litter, construction debris, and/or chemicals will be picked up and properly disposed of prior to the anticipated storm events forecasted by local weather reports. Regular litter pickup (e.g., weekly or more often as needed) may be conducted as an adequate alternate to picking up litter before forecast storm events to prevent entry of trash into receiving streams. These litter pickup events need to be recorded on an inspections log sheet and reported to the Erosion and Sedimentation Control representative (see Attachments).

General Water Quality Requirements/Other Situations

- Stormwater discharges will not have visible floating scum, oil, or other matter or cause an objectionable color contrast in the receiving stream. If such conditions are observed, controls will be inspected and repaired or reinforced as necessary and the on-site Project Manager should be notified immediately. If repairs or changes are made, they will be recorded on the inspection sheet(s).

- Any situation that arises and has not specifically been mentioned above will be addressed by Construction Manger in consultation with on-site Project PA(E) as described in this SWPPP, and Environmental Compliance group. At a minimum, industry standard BMPs will be used when addressing any new concerns.

B. Post-Construction Erosion Controls

- Erosion control measures will be inspected and maintained until vegetation in the disturbed areas has returned to the pre-construction conditions or the site is stabilized.

- All debris and temporary erosion control devices will be removed when stabilization measures are complete and persistent vegetative cover or surface stabilization is achieved.

11.0 Specific Best Management Practices and Spill Prevention

Materials and Wastes

Waste Materials: All trash and construction debris from the site shall be hauled to an approved landfill. No construction waste material shall be buried on the site. Normally, a possible exception may be made for excess concrete (See "Product Specific Practices" section below). Employee waste and other loose materials shall be collected and properly disposed to prevent the release of floatable material during runoff events. Clearing debris (brush and timber) may be chipped and used as mulch on-site in accordance with state and local regulations. Contact the Project PA(E) for approved method of disposing of clearing debris if any is generated.

Hazardous Waste: In the event that hazardous waste is generated, all hazardous waste shall be disposed of according to EPA regulations, state and/or local regulations. Contact the Project PA(E) for approved method of disposing of such materials.

Sanitary Waste: Portable sanitary units shall be provided for use by all workers as needed throughout the life of the project. All sanitary waste shall be regularly collected from the portable units by a licensed sanitary waste management contractor.

Material Storage: Stored materials that cannot contaminate storm water may be stored in the open. However, the lay down area for these items must be prepared so that no sediment leaves the site.

Stored petroleum and other liquid products must have secondary containment if the aggregate quantity in one spot is 55 gallons or greater. The KIF Integrated Pollution Prevention (IPP) Plan provides requirements for storage of liquid products.

Other products that may contaminate storm water. For example, dry fertilizer, must be covered or stored inside to prevent contact with storm water.

Hazardous wastes and materials must have secondary containment and must be covered or stored inside to prevent contact with storm water. The secondary containment must have a manually operated drain valve that can be locked. If stored inside, the secondary containment needs no drain.

Releases to secondary containment must be cleaned-up when discovered and the source of the release repaired as soon as possible. Secondary containment may be earth, but all spills to earth must be completely cleaned-up within 2 hours of discovery. The on-site Project Manager must be notified immediately. The on-site Project Manager will in turn contact the Project PA(E) as soon as possible. See reporting and record keeping requirements below.

Material storage areas will be as small as practicable and as few in number as practicable. They shall be established only in designated areas that minimize the disturbance of soil during use and the chance of storm water runoff contaminated with sediment or other pollutants.

Product-Specific Practices (as applicable)

Concrete: Unused concrete, and wash water shall be disposed of in accordance with the concrete supplier's permits. Concrete and water from the washout or fill must not reach waters of the state, either surface or ground waters. Disposal pits or wash pits are not to be located within 200 feet of any stream or wet weather conveyance. All wash down from trucks shall be directed to a concrete pit designated by the Construction Manager. No washout material may be placed in a sinkhole or its drainage basin. No washout material may be placed on public property, along roadsides, in roadside ditches, on stream banks, or into streams or other waters of the state. If groundwater or other seepage is encountered during excavation of disposal pits, the area may not be used for concrete washout disposal.

Petroleum Products: All on-site vehicles shall be monitored for leaks and will receive regular preventive maintenance to reduce the chance of leakage. If petroleum products shall be present at the site, they shall be stored in tightly sealed containers that are clearly labeled and have secondary containment if the aggregate quantity in one spot is 55 gallons or greater, per the KIF IPP Plan.

Spill Control and Response Practices

Equipment: TVA and the Constructor shall ensure that materials and equipment necessary for spill cleanup for their respective materials shall be present on the site at all times. Equipment and materials shall include but not be limited to brooms, shovels, rags, absorbent materials, and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup shall be dependent upon the nature and quantity of the material stored on-site. A signed inventory sheet shall be provided to the Project PA(E) on a monthly basis.

Response: All spills shall be cleaned up immediately upon discovery. The Constructor shall report all spills to the Construction Manager. The Construction Manager shall contact the Project PA(E) as soon as possible. See below for reporting and record keeping requirements.

Safety: All spill areas shall be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances. The Project Manager will contact the Project PA(E).

Reporting and Record Keeping

In the event of a spill of oil, hazardous substances, or other pollutants, the on-site Construction Manager shall notify the Project PA(E) and the Operations Duty Specialist. These individuals will ensure that the National Response Center, Tennessee Emergency Management Agency, and the Spill Prevention Control and Countermeasure (SPCC), Environmental Compliance are notified. The Project PA(E) must contact the local Environmental Assistance Center (Division of Water Pollution Control) within 14 days of the release to storm water or the receiving stream.

The Project Manager shall place a write up of the spill in the Stormwater Pollution Prevention Plan (SWPPP) within 14 days of the event and will coordinate with the NPDES specialist any needed plan modifications to include additional measures as necessary. The write up shall include description of the release (i.e., quantity and type of material), date of the release, circumstances leading to the release, and steps taken to respond and/or address the release.

If a change in project scope occurs, the SWPPP shall be modified within 7 days. If state inspectors require a modification, it shall be accomplished in a timely manner. If any routine inspection warrants a plan modification, the SWPPP shall be modified within 7 days and the revision shall be implemented within 14 days.

Records: The required records shall be kept on file in the construction office and the final, complete set of records shall be transferred to the Plant PA(E) at the end of construction. TVA is required by the permit to keep records of all spills and inspections for a minimum of 3 years after the Notice of Termination is filed, or longer if requested by the Tennessee Division of Water Pollution Control. However, the TVA EMS system requires 10 years record maintenance.

12.0 Posting of Information at Construction Site

A copy of the Notice of Coverage (NOC) provided by the state shall be posted at the entrance to the construction site. In addition, a notice containing the location of the SWPPP and the name and phone number of a local contact must be posted. An example of the contact notice to be posted is included in Attachments. Notices will be laminated or otherwise protected from weather.

The Tennessee Construction General Permit for coverage of storm water discharges associated with construction activity contains more details necessary for compliance.

ATTACHMENTS

Attachment List

Attachment 1
SWPPP Information & Certification Statements

SWPPP INFORMATION & CERTIFICATION STATEMENTS

Project Name:

KINGSTON FOSSIL PLANT
FLY ASH REMOVAL PROJECT
ROANE COUNTY, TN

Mailing Address:

Tennessee Valley Authority
ATTN: Mike Scott
714 Swan Pond Road
KFP-1T-KST
Harriman, TN 37748
Phone: (865) 717-6508

Location:

35-miles west of Knoxville, TN
See site map for project location

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Michael T Scott
Signature of Principal/Executive Officer or Authorized Agent

5-27-09
Date Signed

I, David A. Wilson, certify that this Plan and accompanying drawings bearing my seal were prepared under my responsible charge.

	Engineer	100095	
Signature	Profession	TN License No.	Date

Attachment 2
Notice of Intent (NOI) for Construction Activity – Storm Water Discharges
(Not Required)

Attachment 3
Major Activities Log

MAJOR ACTIVITIES LOG

At a minimum the construction manager or designee shall record dates below for beginning of major grading, dates temporarily cease construction, dates re-commence construction, dates permanently cease construction and dates seeding and or stabilization begins. Include name of person recording activity. It is recommended that activity descriptions be recorded each day. Provide a copy of the form to the site PA(E) when sheet is filled out or on a monthly basis.

Description of Major Activity	Date	Name

Provide to Plant Program Administrator (Environmental) as completed.

Attachment 4
Runoff Coefficient Calculation

PHASE A AND B - RUNOFF COEFFICIENT CALCULATIONS

	Area, (Ac) (a)	Pre-Project Runoff Coefficient (b)	Pre-Project (a)*(b)	Post-Project Runoff Coefficient (d)	Post-Project (a)*(d)
Western Embayment	1500	0.5	750	0.55	825
North Embayment	1100	0.5	550	0.55	605
Eastern Embayment	400	0.5	200	0.55	220
Failed Cell Area	175	0.65	113.75	0.2	35
Total	3175		1613.75		1685

$$\text{Cumulative Runoff Coefficient} = \frac{\sum((a)*(b))}{\sum \text{areas}}$$

Cumulative Pre-Incident Runoff Coefficient

$$\frac{1613.75}{3175} = 0.51$$

Cumulative Post-Incident Runoff Coefficient

$$\frac{1685}{3175} = 0.53$$

*THIS PROJECT IS TO RETURN THE SITE TO POST RUNOFF LEVELS.

ASH PROCESSING AREA 1 - RUNOFF COEFFICIENT CALCULATIONS

	Area, (Ac) (a)	Pre-Project Runoff Coefficient (b)	Pre-Project (a)*(b)	Post-Project Runoff Coefficient (d)	Post-Project (a)*(d)
Ash Processing Area 1	68	0.50	34	0.50	34
Total	68		34		34

$$\text{Cumulative Runoff Coefficient} = \frac{\sum((a)*(b))}{\sum \text{areas}}$$

Cumulative Pre-Project Runoff Coefficient

$$\frac{34}{68} = 0.50$$

Cumulative Post-Project Runoff Coefficient

$$\frac{34}{68} = 0.50$$

ASH PROCESSING AREA 2 - RUNOFF COEFFICIENT CALCULATIONS

	Area, (Ac) (a)	Pre-Project Runoff Coefficient (b)	Pre-Project (a)*(b)	Post-Project Runoff Coefficient (d)	Post-Project (a)*(d)
Ash Recovery Area					
Timber	1	0.18	0.18	0.50	0.50
Grass Land	14	0.35	4.90	0.50	7.00
Operational Ash Area					
Timber	4	0.18	0.72	0.50	2.00
Grass Land	30	0.35	10.50	0.50	15.00
Borrow Area	18	0.40	7.20	0.50	9.00
North Stockpile Area	3	0.35	1.05	0.50	1.50
South Stockpile Area	17	0.35	5.95	0.50	8.50
Access Roads	10	0.27	2.70	0.50	5.00
12' Gravel Roadway with 22" Diameter Pipe	2	0.40	0.80	0.5	1.00
Total	99		34.00		49.5

$$\text{Cumulative Runoff Coefficient} = \frac{S((a)*(b))}{S \text{ areas}}$$

Cumulative Pre-Project Runoff Coefficient

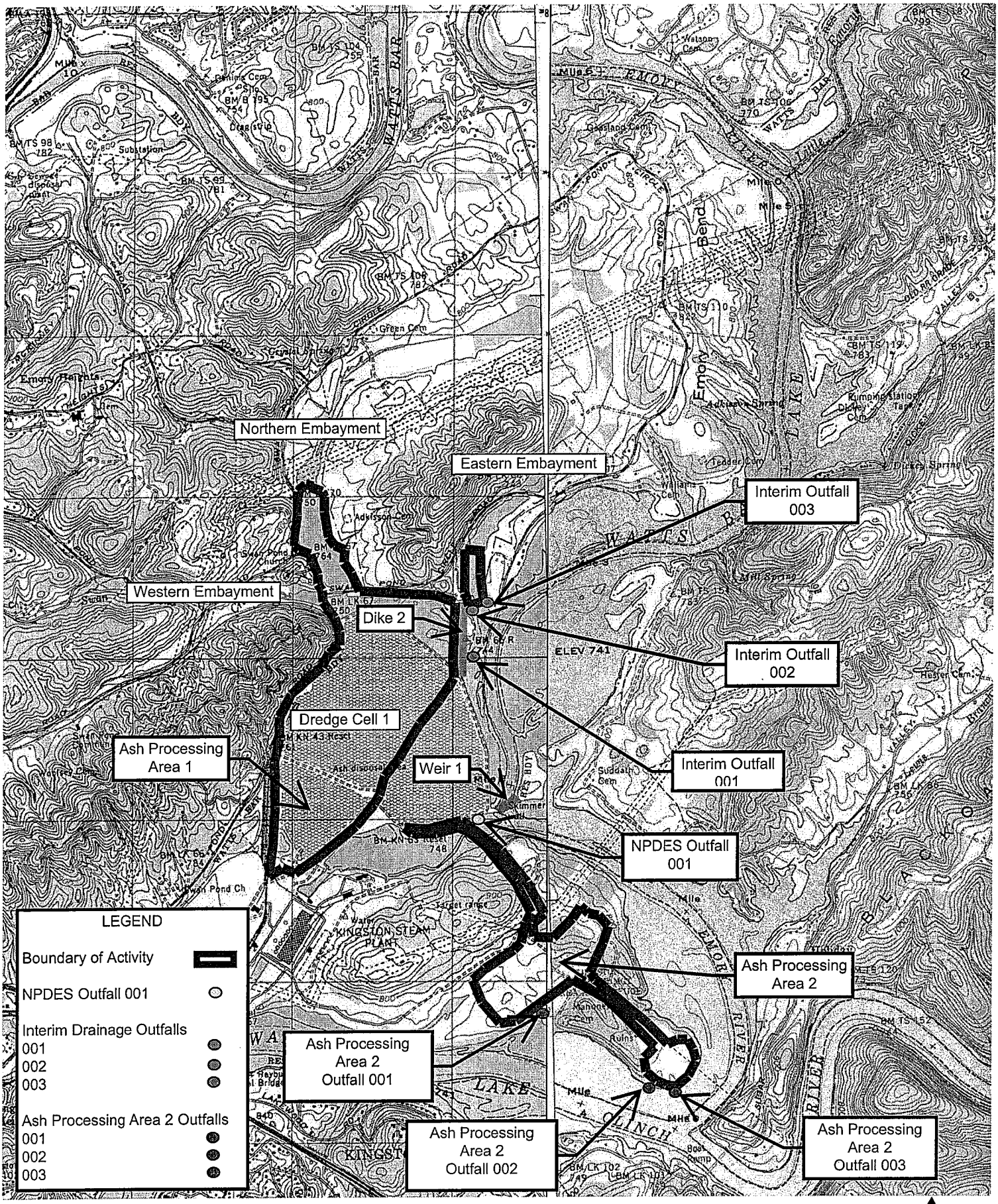
$$\frac{34.00}{136} = 0.25$$

Cumulative Post-Project Runoff Coefficient

$$\frac{49.5}{136} = 0.36$$

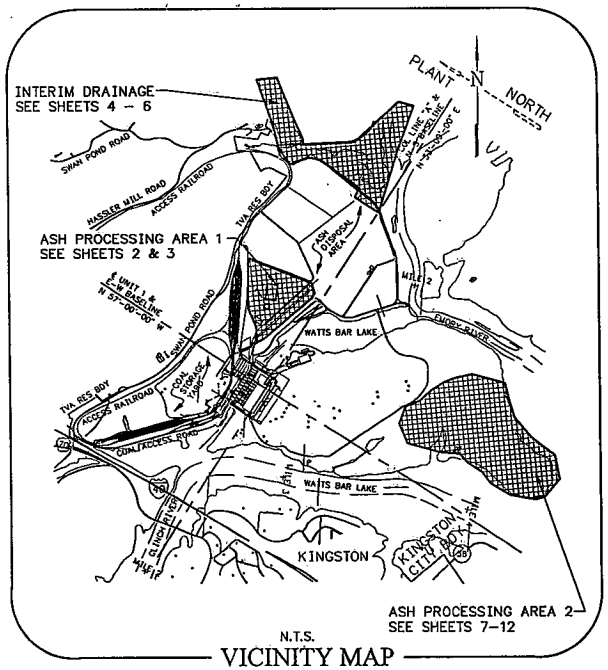
Attachment 5
Site Map and Drawings

Kingston Fossil Plant Project Outfall Map



USGS Harrison and Elverton Quadrangle Maps

TENNESSEE VALLEY AUTHORITY
KINGSTON FOSSIL PLANT
STORMWATER POLLUTION PREVENTION PLAN
HARRIMAN, TENNESSEE



N.T.S.

VICINITY MAP

INDEX OF DRAWINGS

SKETCH NO.	DESCRIPTION
SK-SWPPP-001	EROSION AND SEDIMENT CONTROL PLAN TITLE SHEET
SK-SWPPP-002	ASH PROCESSING AREA 1 INITIAL CONDITIONS PLAN
SK-SWPPP-003	ASH PROCESSING AREA 1 EROSION AND SEDIMENT CONTROL PLAN
SK-SWPPP-004	INTERIM DRAINAGE PHASE 1A & 1B INITIAL CONDITIONS PLAN
SK-SWPPP-005	INTERIM DRAINAGE PHASE 1A & 1B EROSION AND SEDIMENT CONTROL PLAN
SK-SWPPP-006	INTERIM DRAINAGE PHASE 1A & 1B SETTLING AREAS
SK-SWPPP-007	EROSION AND SEDIMENT CONTROL DETAILS
SK-SWPPP-008	ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN
SK-SWPPP-009	ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN
SK-SWPPP-010	EROSION AND SEDIMENT CONTROL DETAILS
SK-SWPPP-011	ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN
SK-SWPPP-012	ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN

OWNERS EROSION CONTROL REPRESENTATIVE:
NAME: BUTCH PARTON PHONE#: (865) 860-4458

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

SCALE: NONE — EXCEPT AS NOTED

CIVIL
YARD

CIVIL
EROSION AND SEDIMENT CONTROL
PLAN TITLE SHEET

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

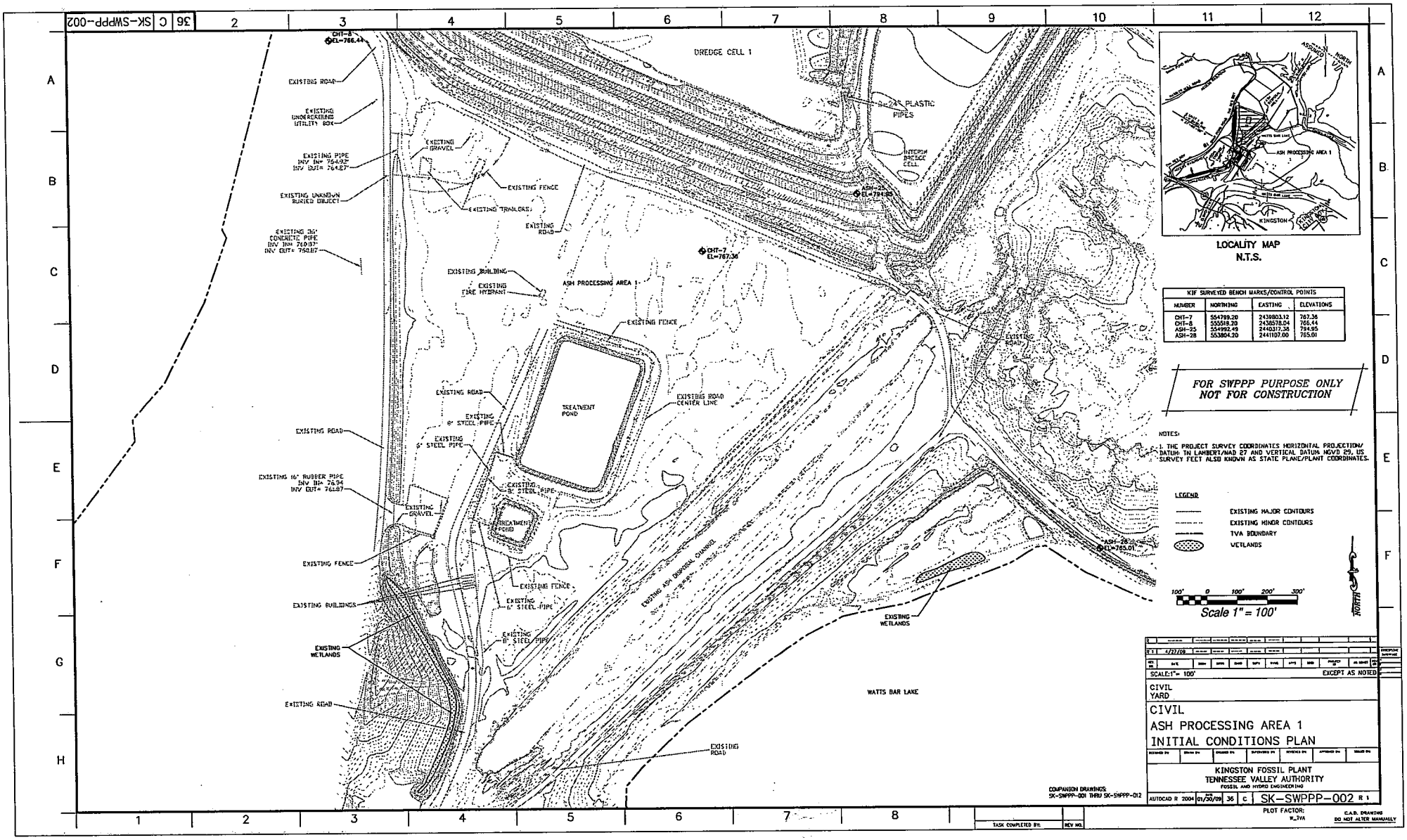
AUTOCAD R 2004 | 04/27/09 | 35 | SK-SWPPP-001 R 0

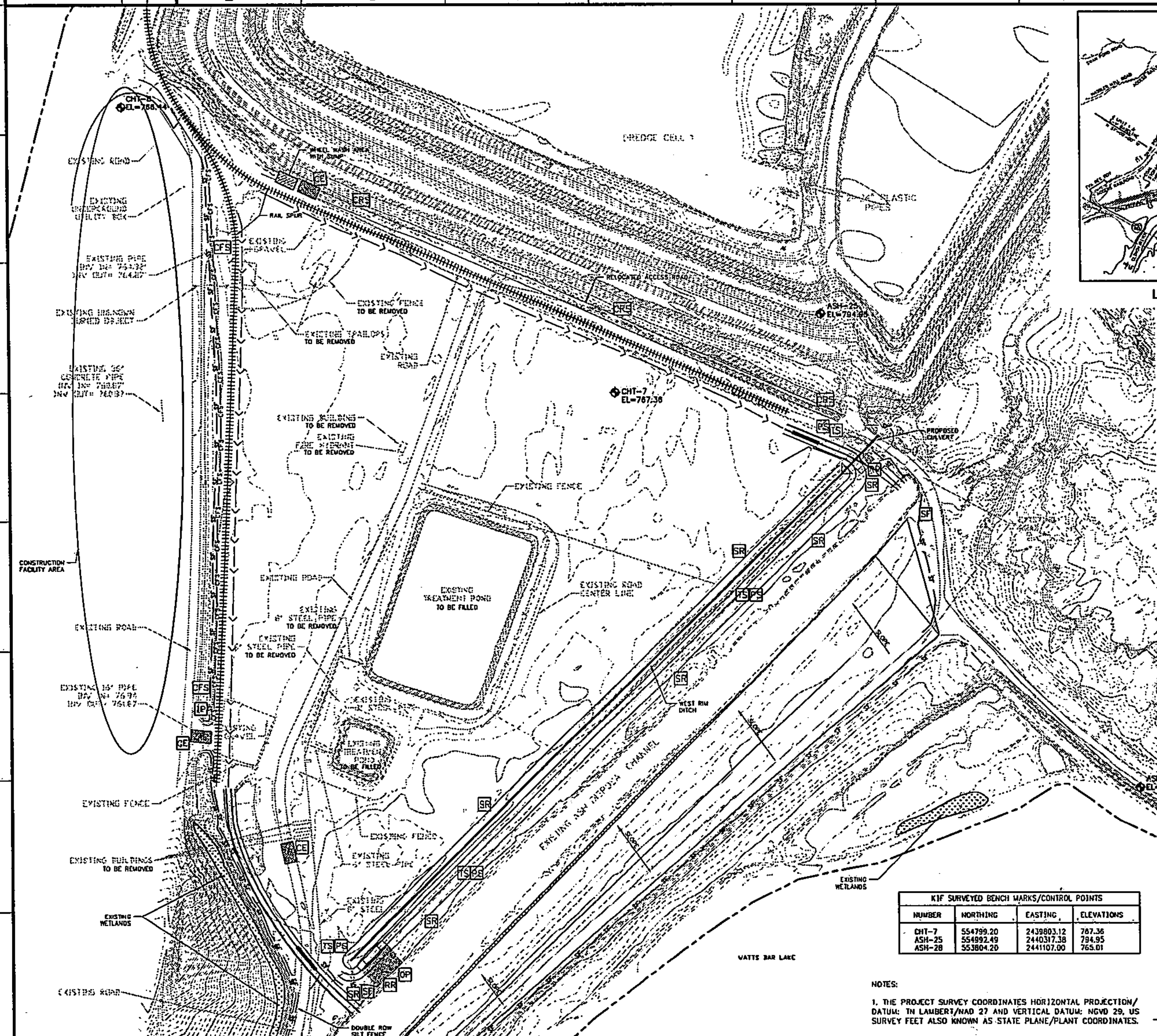
COMPANION DRAWINGS
SK-SWPPP-001 THRU SK-SWPPP-012

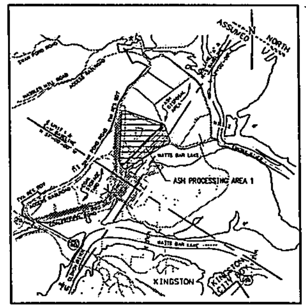
TASK COMPLETED BY: | REV NO.

PLOT FACTOR:
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY


SK-SWPPP-002 C 36
DREDGE CELL 1
CHT-8 EL=766.44
EXISTING ROAD
EXISTING UNDERGROUND UTILITY BOX
EXISTING PIPE INV IN= 764.92' INV OUT= 764.87'
EXISTING UNKNOWN BURIED OBJECT
EXISTING 36" CONCRETE PIPE INV IN= 760.97' INV OUT= 760.87'
EXISTING GRAVEL
EXISTING FENCE
EXISTING TRAILORS
EXISTING ROAD
EXISTING BUILDING
EXISTING FIRE HYDRANT
ASH PROCESSING AREA 1
CHT-7 EL=767.36
EXISTING FENCE
EXISTING ROAD
TREATMENT POND
EXISTING ROAD CENTER LINE
EXISTING 6" STEEL PIPE
EXISTING 6" STEEL PIPE
EXISTING ROAD
EXISTING 16" RUBBER PIPE INV IN= 76.94 INV OUT= 761.87
EXISTING 8" STEEL PIPE
EXISTING GRAVEL
TREATMENT POND
EXISTING FENCE
EXISTING BUILDINGS
EXISTING WETLANDS
EXISTING ROAD
EXISTING FENCE
EXISTING 6" STEEL PIPE
EXISTING 8" STEEL PIPE
EXISTING ASH DISPOSAL CHANNEL
EXISTING WETLANDS
WATTS BAR LAKE
EXISTING ROAD
24" PLASTIC PIPES
INTERIM BRIDGE CELL
ASH-25 EL=794.95
ASH-28 EL=765.01
EXISTING ROAD
LOCALITY MAP
N.T.S.
ASH PROCESSING AREA 1
KINGSTON
KIF SURVEYED BENCH MARKS/CONTROL POINTS
NUMBER | NORTHING | EASTING | ELEVATIONS
CHT-7 | 554799.20 | 2439803.12 | 767.36
CHT-8 | 555518.20 | 2438578.04 | 766.44
ASH-25 | 554992.49 | 2440317.36 | 794.95
ASH-28 | 553804.20 | 2441107.00 | 765.01
FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION
NOTES:
1. THE PROJECT SURVEY COORDINATES HORIZONTAL PROJECTION/ DATUM: TN LAMBERT/NAD 27 AND VERTICAL DATUM: NGVD 29, US SURVEY FEET ALSO KNOWN AS STATE PLANE/PLANT COORDINATES.
LEGEND
EXISTING MAJOR CONTOURS
EXISTING MINOR CONTOURS
TVA BOUNDARY
WETLANDS
100' 0 100' 200' 300'
Scale 1" = 100'
NORTH
SCALE:1"= 100'
EXCEPT AS NOTED
CIVIL
YARD
CIVIL
ASH PROCESSING AREA 1
INITIAL CONDITIONS PLAN
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING
AUTOCAD R 2004 01/30/09 36 C SK-SWPPP-002 R 1
COMPANION DRAWINGS
SK-SWPPP-001 THRU SK-SWPPP-012
TASK COMPLETED BY:
REV NO.
PLOT FACTOR:
W_TVA
C.A.D. DRAWING
DO NOT ALTER MANUALLY





LOCALITY MAP
N.T.S.

TDEC BEST MANAGEMENT PRACTICES MANUAL (BMP) CHART

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
CD	CHECK DAM			A SMALL TEMPORARY BARRIER OR DAM CONSTRUCTED ACROSS A SWALE, DRAINAGE DITCH OR AREA OF CONCENTRATED FLOW.
CE	CONSTRUCTION ENTRANCE		CE (Label)	A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS.
DB	DIVERSION BERM			AN EARTH CHANNEL OR BERM LOCATED ABOVE ACROSS A SLOPE TO DIVERT RUNOFF. THIS MAY BE A TEMPORARY OR PERMANENT STRUCTURE.
SF	SEDIMENT BARRIER		TYPE (INDICATE TYPE)	A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, BALES OR STRAW OR HAY, BRUSH, LOGS & POLES, GRAVEL, OR A SEDIMENT FENCE. THE BARRIERS ARE USUALLY TEMPORARY & INEXPENSIVE.
OP	STORM DRAIN OUTLET PROTECTION		SF	A PAVED OR SHORT SECTION OF RIP RAP CHANNEL AT THE OUTLET OF A STORM DRAIN SYSTEM PREVENTING EROSION FROM THE CONCENTRATED RUNOFF.
TS PS	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		TS PS	ESTABLISHING TEMPORARY & PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD, OR LEGUMES ON DISTURBED AREAS.
SR	SURFACE ROUGHENING		SR	A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS ON A CONTOUR OR SLOPES LEFT IN A ROUGHENED CONDITION AFTER GRADING.
IP	INLET SEDIMENT TRAP			AN IMPOUNDING AREA CREATED BY EXCAVATING AROUND A STORM DRAIN INLET. THE EXCAVATED AREA WILL BE FILLED AND STABILIZED ON COMPLETION OF CONSTRUCTION ACTIVITIES.
RR	PERMANENT STABILIZATION W/ RIP-RAP		RR	A PERMANENT, EROSION-RESISTANT GROND COVER OF LARGE, LOOSE, ANGULAR STONE WITH A GEOTEXTILE OR GRANULAR UNDERLINING.
MA	EROSION CONTROL BLANKET/MATING		MA	A PROTECTIVE BLANKET OR SOIL STABILIZATION MAT USED TO ASSIST IN ESTABLISHMENT OF TEMPORARY OR PERMANENT VEGETATION ON STEEP SLOPES, CHANNELS, OR STREAM BANKS.
CFS	COMPOSITE FILTER SOCK		CFS	A TUBULAR SEDIMENT CONTROL AND STORM WATER RUNOFF FILTRATION DEVICE.
CRS	CONSTRUCTION ROAD STABILIZATION		CRS	TO PROVIDE A FIXED ROUTE FOR CONSTRUCTION TRAFFIC, AND TO REDUCE EROSION AND SUBSEQUENT RE-GRADING OF PERMANENT ROADBEDS BETWEEN THE TIME OF INITIAL GRADING AND FINAL STABILIZATION.

DATA INFORMATION:
EAST AND WEST SIDE OF PROPERTY DRAINS INTO AN UNNAMED TRIBUTARY WHICH DISCHARGES INTO EMORY RIVER.

SITE INFORMATION:
SITE AREA: 800 ACRES
LAND DISTURBANCE AREA: 342 ACRES
PROPERTY OWNER: TENNESSEE VALLEY AUTHORITY
KINGSTON FOSSIL PLANT
HARRIMAN, TENNESSEE
PHONE NO.865-717-6520

NOTE:
CONTRACTOR SHALL INSPECT OUTFALL POINTS AFTER ANY STORM EVENT & MAKE NECESSARY ADJUSTMENTS TO (BMP)S TO ELIMINATE SEDIMENT FROM EXITING SITE.

COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012

LEGEND
- 389.65 SPOT ELEVATION
- —390— PROPOSED CONTOURS
- EXISTING CONTOURS
- — SF — SILT FENCE
- TVA BOUNDARY
- WETLANDS

100' 0 100' 200' 300'
Scale 1" = 100'
NORTH

KIF SURVEYED BENCH MARKS/CONTROL POINTS			
NUMBER	NORTHING	EASTING	ELEVATIONS
CHT-7	554799.20	2439803.12	787.36
ASH-25	554992.49	2440317.38	794.95
ASH-28	553804.20	2441107.00	765.01

NOTES:

1. THE PROJECT SURVEY COORDINATES HORIZONTAL PROJECTION/DATUM: TN LAMBERT/NAD 27 AND VERTICAL DATUM: NGVD 29, US SURVEY FEET ALSO KNOWN AS STATE PLANE/PLANT COORDINATES.

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

R 1 4/27/09

SCALE:1"= 100' EXCEPT AS NOTED

CIVIL
YARD

CIVIL
ASH PROCESSING AREA 1 EROSION AND SEDIMENT CONTROL PLAN

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

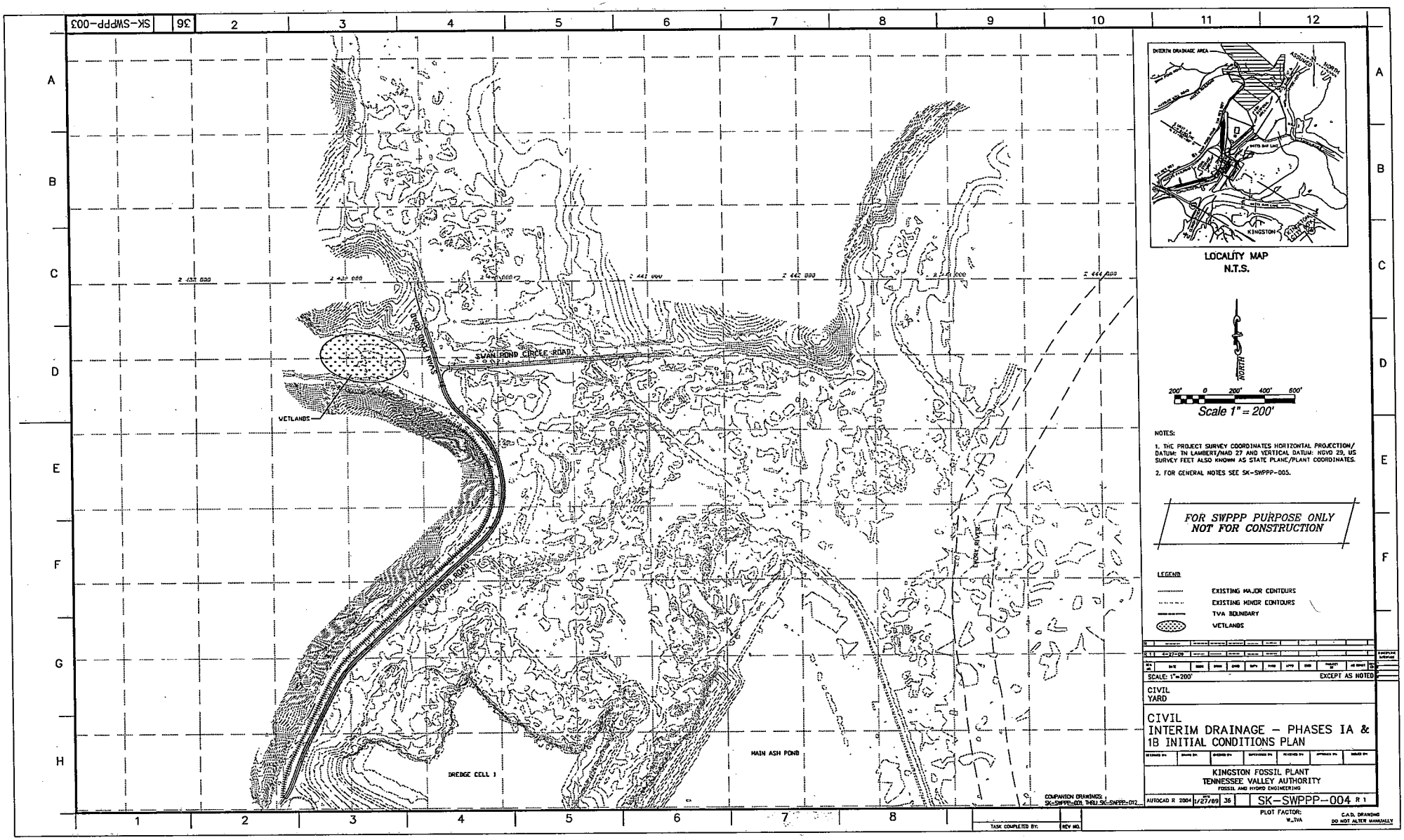
AUTOCAD R 2004 | 01/30/09 | 36 | SK-SWPPP-003 R 1

PLOT FACTOR: W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

TASK COMPLETED BY: REV NO.

SK-SWPPP-003 36



LOCALITY MAP
N.T.S.

NOTES:

1. THE PROJECT SURVEY COORDINATES HORIZONTAL PROJECTION/ DATUM: TN LAMBERT/NAD 27 AND VERTICAL DATUM: NGVD 29, US SURVEY FEET ALSO KNOWN AS STATE PLANE/PLANT COORDINATES.
2. FOR GENERAL NOTES SEE SK-SWPPP-005.

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- TVA BOUNDARY
- WETLANDS

SCALE: 1"=200' EXCEPT AS NOTED

CIVIL
YARD

CIVIL
INTERIM DRAINAGE – PHASES IA & 1B INITIAL CONDITIONS PLAN

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R 2004 | 1/27/09 | 36 | SK-SWPPP-004 R 1

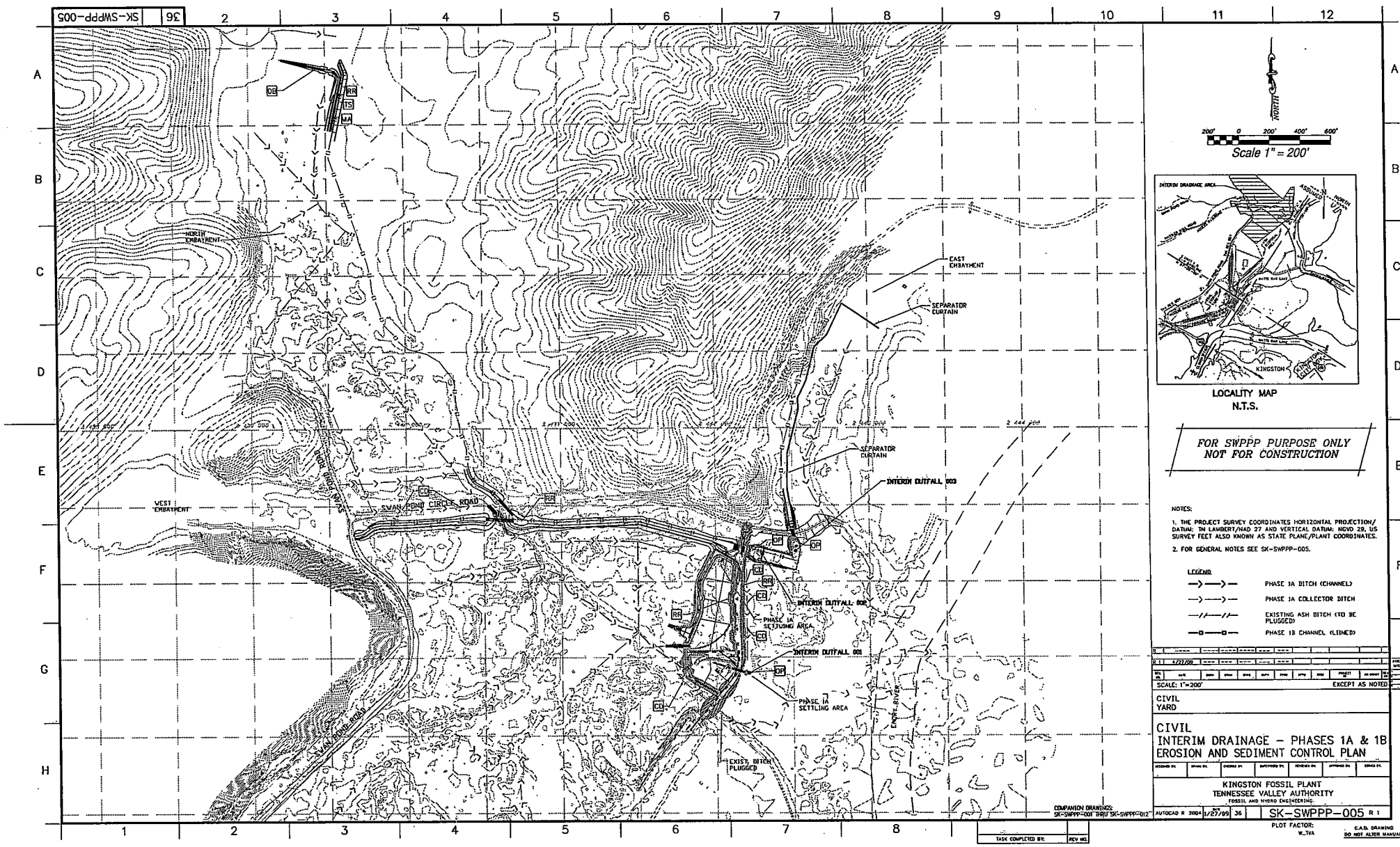
PLOT FACTOR:
W_TVA

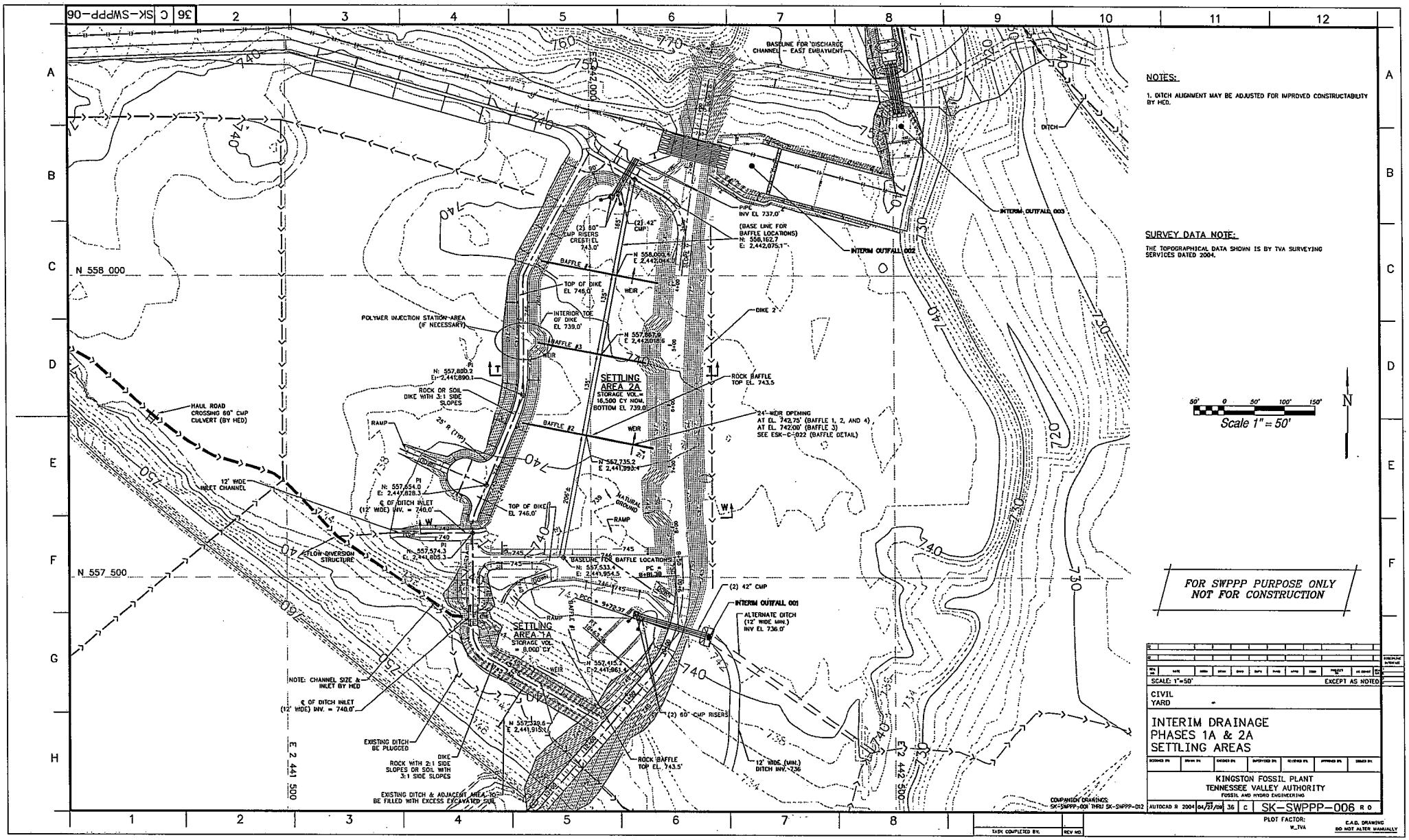
C.A.D. DRAWING
DO NOT ALTER MANUALLY

COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012

TASK COMPLETED BY: | REV NO.

SK-SWPPP-003 | 36


NORTH EMBAYMENT
WEST EMBAYMENT
EAST EMBAYMENT
SEPARATOR CURTAIN
SEPARATOR CURTAIN
INTERIM OUTFALL 003
INTERIM OUTFALL 002
INTERIM OUTFALL 001
PHASE 1A SETTLING AREA
PHASE 1A SETTLING AREA
SWAN POND CIRCLE ROAD
SWAN POND ROAD
EXIST. DITCH PLUGGED
EMBAYMENT
NORTH
200' 0 200' 400' 600'
Scale 1" = 200'
INTERIM DRAINAGE AREA
KINGSTON
LOCALITY MAP
N.T.S.
FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION
NOTES:
1. THE PROJECT SURVEY COORDINATES HORIZONTAL PROJECTION/ DATUM: TN LAMBERT/NAD 27 AND VERTICAL DATUM: NGVD 29, US SURVEY FEET ALSO KNOWN AS STATE PLANE/PLANT COORDINATES.
2. FOR GENERAL NOTES SEE SK-SWPPP-005.
LEGEND
PHASE 1A DITCH (CHANNEL)
PHASE 1A COLLECTOR DITCH
EXISTING ASH DITCH (TO BE PLUGGED)
PHASE 1B CHANNEL (LINED)
SCALE: 1"=200'
EXCEPT AS NOTED
CIVIL
YARD
CIVIL
INTERIM DRAINAGE - PHASES 1A & 1B
EROSION AND SEDIMENT CONTROL PLAN
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING
SK-SWPPP-005 R 1
COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012
TASK COMPLETED BY:
REV NO.
PLOT FACTOR:
W_TVA
C.A.D. DRAWING
DO NOT ALTER MANUALLY



NOTES:

1. DITCH ALIGNMENT MAY BE ADJUSTED FOR IMPROVED CONSTRUCTABILITY BY HED.

SURVEY DATA NOTE:

THE TOPOGRAPHICAL DATA SHOWN IS BY TVA SURVEYING SERVICES DATED 2004.

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

SCALE: 1"=50' EXCEPT AS NOTED

CIVIL
YARD

INTERIM DRAINAGE PHASES 1A & 2A SETTLING AREAS

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R 2004 | 04/27/06 | 36 | C | SK-SWPPP-006 R 0

COMPANION DRAWINGS: SK-SWPPP-001 THRU SK-SWPPP-012

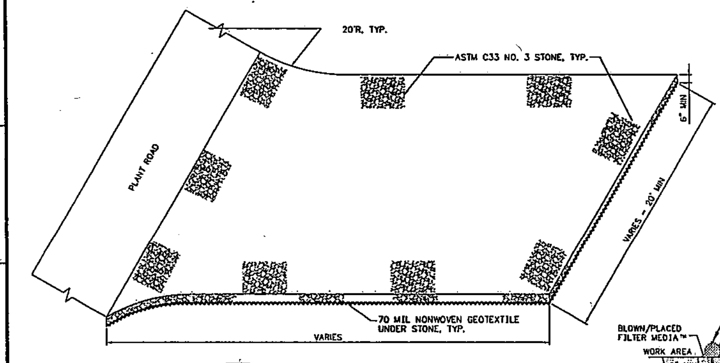
PLOT FACTOR: W_TVA

C.A.D. DRAWING DO NOT ALTER MANUALLY

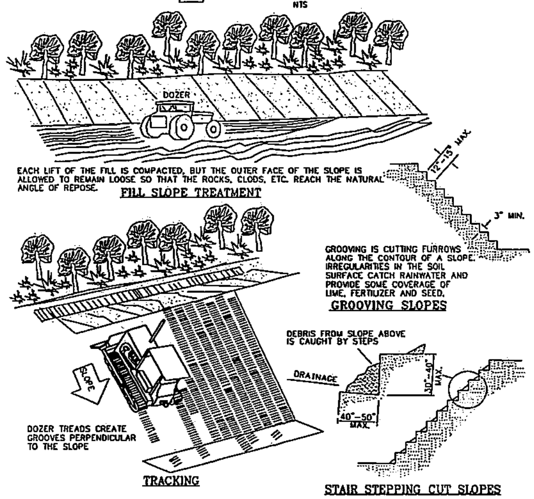
TASK COMPLETED BY: REV NO.

36 C SK-SWPPP-06

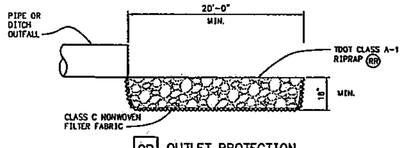
SK-SWPPP-007 | 36



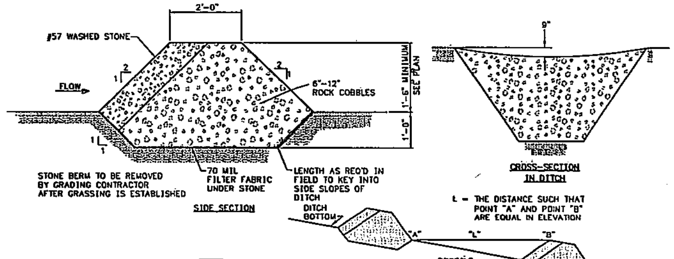
CE TYPICAL CONSTRUCTION ENTRANCE/EXIT
NTS



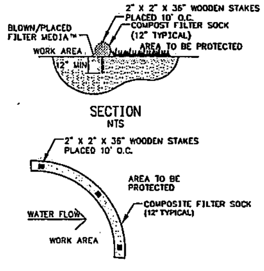
SR SURFACE ROUGHENING
NTS



OP OUTLET PROTECTION
NTS

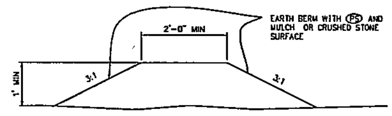


CD STONE CHECK DAM
NTS

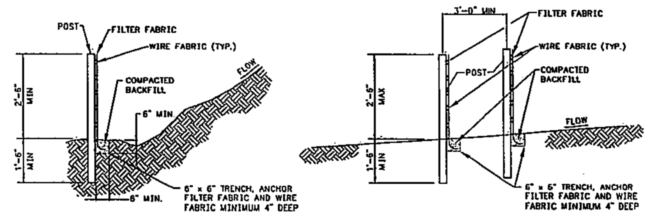


NOTES:
1. ALL MATERIAL TO MEET VENDOR SPECIFICATIONS.
2. SILT SOCK FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ON SITE CONSTRUCTION MANAGER.

CFS COMPOST FILTER SOCK
NTS



DB DIVERSION BERM
NTS



SINGLE ROW SILT FENCE

DOUBLE ROW SILT FENCE

SF SILT FENCE TYPE C
NTS

SILT FENCE NOTES:
1. FILTER FABRIC FENCE TO BE PLACED PRIOR TO THE START OF ROUGH GRADING.
2. STEEL POSTS SHALL BE METAL "T" POSTS.
3. POSTS SHALL BE PLACED AT 4' INTERVALS MAX.
4. WIRE FABRIC AND FILTER FABRIC SHALL BE SECURELY BOUND TO POSTS WITH WIRE TIES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONDITION OF FILTER FABRIC FENCE IN A CONDITION THAT IS SATISFACTORY UNTIL FINAL ACCEPTANCE OF WORK.
6. FILTER FABRIC SHALL BE TYPE A WOVEN FABRIC IN ACCORDANCE WITH TVA SPECIFICATION T-1, SECTION 571.

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH GENERAL CONSTRUCTION SPECIFICATION NO. T-1 UNLESS OTHERWISE NOTED.
2. RIPRAP SHALL BE 12" THICK. A MINIMUM OF 50 PERCENT, BY WEIGHT, OF THE STONES SHALL BE 75 LB. EACH AND IN ACCORDANCE WITH SECTION 575.
3. EXCAVATION AND BACKFILL FOR PIPE CULVERTS SHALL CONFORM TO SECTION 125.
4. TEMPORARY SEEDING SHALL MEET THE REQUIREMENTS OF T-1 SECTION 583.
5. MULCHING SHALL MEET THE REQUIREMENTS OF T-1 SECTION 581.
6. TOPOGRAPHY AND SITE FEATURES OBTAINED FROM TVA DRAWING SURVEY DATED 01/2009.
7. THE TENNESSEE STATE COORDINATES AT THE INTERSECTION OF THE N-S AND E-W BASELINES ARE NORTH 551,654.16 AND EAST 2,439,236.03.
8. UNIMPROVED ROADWAY SURFACES LOCATED ON THE TVA RESERVATION SHALL BE MAINTAINED WITH CRUSHED STONE DURING THE HAULING OPERATIONS.
9. ROADWAY SIGNAGE SHALL BE ERECTED PRIOR TO INITIATION OF THE WORKING SESSION. ROADWAY SIGNAGE SHALL BE REMOVED UPON COMPLETION OF THE WORKING SESSION.
10. FOR ADDITIONAL PROJECT REQUIREMENTS, SEE THE PROJECT SWPPP DOCUMENT.
11. CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AS SHOWN OF DRAWINGS. ADDITIONAL CONSTRUCTION ENTRANCE/EXIT SHALL BE FIELD LOCATED AS REQUIRED TO PREVENT SEDIMENT FROM BEING DEPOSITED ON PAVED SURFACES.
12. CONTRACTOR TO CLEAN OUT SEDIMENT IN SILT FENCE (SF) AND OUTLET PROTECTION (OP) CHECK DAMS (CD), AND COMPOSITE FILTER SOCK (CFS) WHEN THEY REACH 50% OF THEIR DESIGN CAPACITY.
13. CONTRACTOR SHALL INSPECT OUTFALL POINTS AFTER ANY STORM EVENT & MAKE NECESSARY ADJUSTMENTS TO (BMP)S TO ELIMINATE SEDIMENT FROM EXITING SITE.
14. WETLAND BOUNDARIES ARE INDICATED BY HATCHING PATTERN. THESE AREAS SHALL BE AVOIDED DURING CONSTRUCTION.
15. SEE THE CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL REQUIREMENTS FOR THE STORM WATER DISCHARGE AND SEDIMENTATION CONTROL.
16. CONSTRUCTION SIGNAGE SHALL BE AS SHOWN ON THE DRAWINGS SUBJECT TO THE FOLLOWING:
    A. SIGN SUBSTRATE SHALL BE .080" ALUMINUM, 30"x30"
    B. ENGINEER GRADE REFLECTIVE, CONSTRUCTION WORK ZONE ORANGE
    C. SIGNAGE SHALL BE S3030W414EAC AS MANUFACTURED A & H SAFETY SUPPLY, CHATTANOOGA TN, (423) 265-3054 OR APPROVED EQUIVALENT

EROSION CONTROL NOTES:

1. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL; ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PUBLICATION ENTITLED "BEST MANAGEMENT PRACTICES" AND THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST ADDITIONS.
4. ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE NOT PAVED SHALL BE SEEDED FOR PERMANENT VEGETATION. PERMANENT SOIL STABILIZATION WITH PERENNIAL VEGETATION SHALL BE APPLIED WITHIN 15 DAYS AFTER FINISH GRADING. IF WORK IS SUSPENDED AND WILL NOT RESUME WITHIN 15 DAYS, TEMPORARY OR PERMANENT STABILIZATION OF DISTURBED AREAS SHALL BE COMPLETED WITHIN 15 DAYS OF WORK CEASING.
5. CONSTRUCTION DEBRIS MUST BE KEPT FROM ENTERING DRAINAGE CHANNELS AT ALL TIMES.
6. PORTIONS OF THIS SITE ARE LOCATED IN THE 100 YEAR FLOOD HAZARD AREA AS DELINEATED ON F.I.R.M., ROANE COUNTY, TENNESSEE MAP NO. 47145C0094F DATED SEPT. 28, 2007.
7. SEE THE STORMWATER POLLUTION PREVENTION PLAN DOCUMENT (SWPPP) FOR ADDITIONAL REQUIREMENTS FOR STORM WATER DISCHARGE AND SEDIMENTATION CONTROL.
8. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
9. TVA CONSTRUCTION MANAGER HAS THE AUTHORITY TO MODIFY DESIGN DOCUMENTS AS NEEDED TO ENSURE ADEQUATE MEASURES ARE TAKEN TO CONTROL RUNOFF DURING CONSTRUCTION. ANY MODIFICATIONS SHALL BE INCORPORATED INTO THE SWPPP WITHIN 14 DAYS.
10. SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENT PONDS, AND OTHER SEDIMENT CONTROLS AS NECESSARY, AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%.
11. ALL EROSION CONTROL MATERIALS & DEVICES SHALL COMPLY WITH THE "TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK".

LEGEND

DB	DIVERSION
OP	OUTLET PROTECTION
ST	SEDIMENT TRAP
CD	CHECK DAM
TS	TEMPORARY SEEDING
PS	PERMANENT SEEDING
MU	MULCH
SF	SILT FENCE
MA	EROSION CONTROL MAT
CE	CONSTRUCTION ENTRANCE/EXIT
FR	FILTER RING
A	CONSTRUCTION TRAFFIC SIGNAGE
B	FLASHING WARNING LIGHT
RR	RIP RAP

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012

R.1 4/27/09

SCALE: AS SHOWN — EXCEPT AS NOTED

CIVIL
YARD

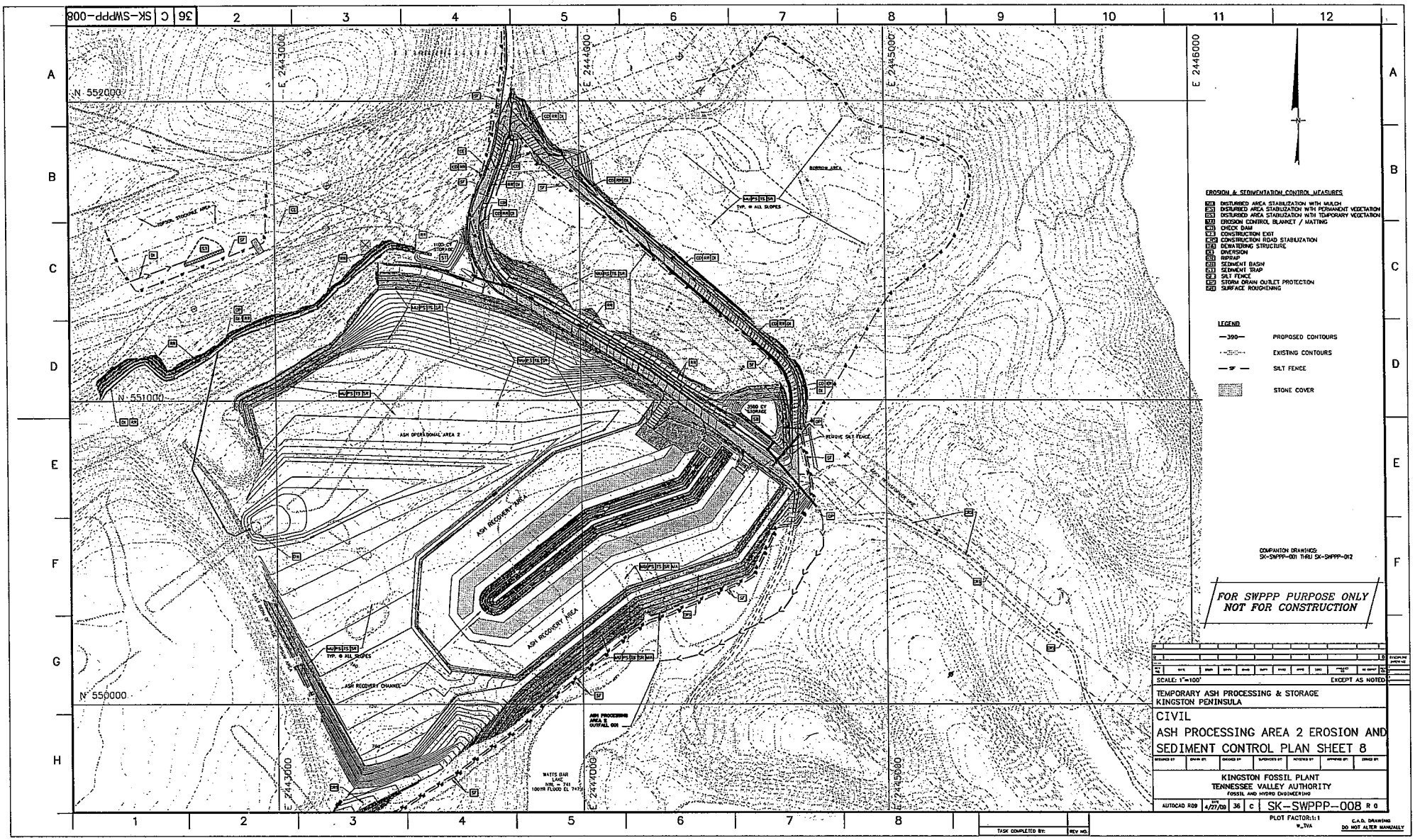
CIVIL
EROSION AND SEDIMENT CONTROL
DETAILS SHEET 6

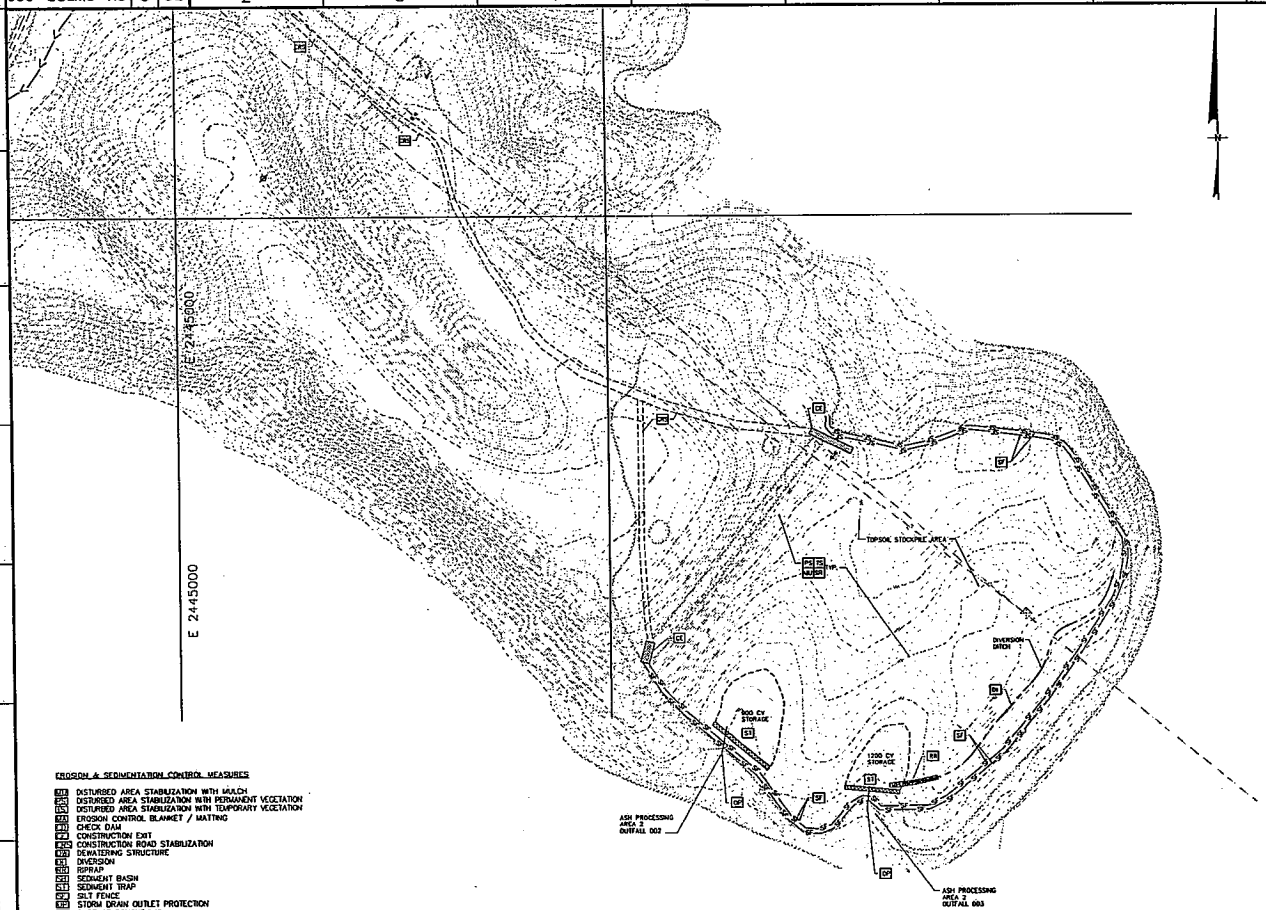
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R 2004 | 01/30/09 | 36 | SK-SWPPP-007 R 1

PLOT FACTOR:
C.A.D. DRAWING
DO NOT ALTER MANUALLY

TASK COMPLETED BY: | REV NO.


N 552000
N 551000
N 550000
E 2443000
E 2444000
E 2445000
E 2446000
ASH OPERATIONAL AREA 2
ASH RECOVERY AREA
ASH RECOVERY AREA
ASH RECOVER CHANNEL
ASH PROCESSING AREA 2 OUTFALL 001
BORROW AREA
REMOVE SILT FENCE
WATTS BAR LAKE
EL. = 741
100YR FLOOD EL 747.2
EROSION & SEDIMENTATION CONTROL MEASURES
DISTURBED AREA STABILIZATION WITH MULCH
DISTURBED AREA STABILIZATION WITH PERMANENT VEGETATION
DISTURBED AREA STABILIZATION WITH TEMPORARY VEGETATION
EROSION CONTROL BLANKET / MATTING
CHECK DAM
CONSTRUCTION EXIT
CONSTRUCTION ROAD STABILIZATION
DEWATERING STRUCTURE
DIVERSION
RIPRAP
SEDIMENT BASIN
SEDIMENT TRAP
SILT FENCE
STORM DRAIN OUTLET PROTECTION
SURFACE ROUGHENING
LEGEND
390 PROPOSED CONTOURS
EXISTING CONTOURS
SILT FENCE
STONE COVER
COMPANION DRAWINGS
SK-SWPPP-001 THRU SK-SWPPP-012
FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION
SCALE: 1"=100' EXCEPT AS NOTED
TEMPORARY ASH PROCESSING & STORAGE
KINGSTON PENINSULA
CIVIL
ASH PROCESSING AREA 2 EROSION AND
SEDIMENT CONTROL PLAN SHEET 8
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING
AUTOCAD R09
4/27/09
36
C
SK-SWPPP-008 R 0
PLOT FACTOR:1:1
C.A.D. DRAWING
DO NOT ALTER MANUALLY
TASK COMPLETED BY:
REV NO.
36 C SK-SWPPP-008



EROSION & SEDIMENTATION CONTROL MEASURES

- DSM DISTURBED AREA STABILIZATION WITH MULCH
- DSP DISTURBED AREA STABILIZATION WITH PERMANENT VEGETATION
- DST DISTURBED AREA STABILIZATION WITH TEMPORARY VEGETATION
- EC EROSION CONTROL BLANKET / MATTING
- CD CHECK DAM
- CE CONSTRUCTION EXIT
- CRS CONSTRUCTION ROAD STABILIZATION
- DW DEWATERING STRUCTURE
- DI DIVERSION
- RR RIPRAP
- SB SEDIMENT BASIN
- ST SEDIMENT TRAP
- SF SILT FENCE
- SDP STORM DRAIN OUTLET PROTECTION
- SR SURFACE ROUGHENING

LEGEND

- —390— PROPOSED CONTOURS
- --390-- EXISTING CONTOURS
- — SF — SILT FENCE
- STONE COVER

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

COMPANION DRAWINGS
SK-SWPPP-001 THRU SK-SWPPP-012

SCALE: 1"=100' EXCEPT AS NOTED

TEMPORARY ASH PROCESSING & STORAGE
KINGSTON PENINSULA

CIVIL

ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN SHEET 9

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

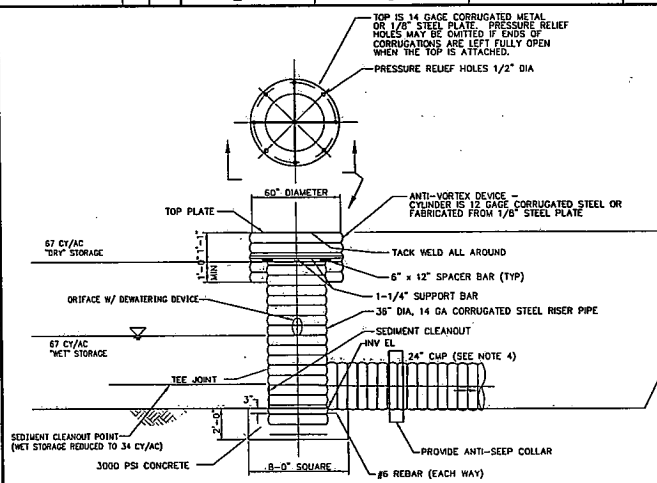
AUTOCAD R09 | 4/27/09 | 36 | C | SK-SWPPP-009 R 0

PLOT FACTOR:1:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

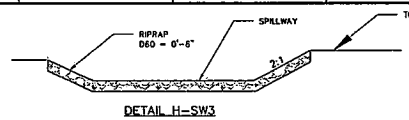
TASK COMPLETED BY: | REV NO.

36 | C | SK-SWPPP-009

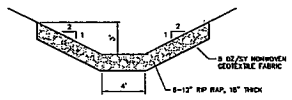


DETAIL G-SW3
SEDIMENT POND OUTLET STRUCTURE (IF REQUIRED)
N.T.S.

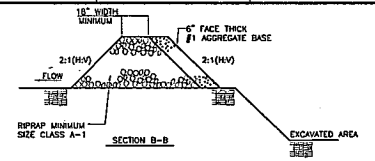
NOTE:
1. SEDIMENT POND OUTLET STRUCTURE SHOWN FOR GENERAL CONSTRUCTION GUIDANCE. ENGINEERING MAY PROVIDE A SPECIFIC DESIGN IF WARRANTED.



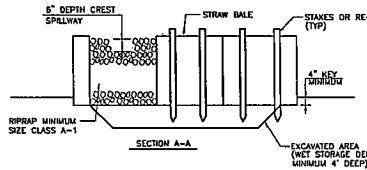
DETAIL H-SW3
EMERGENCY SPILLWAY
N.T.S.



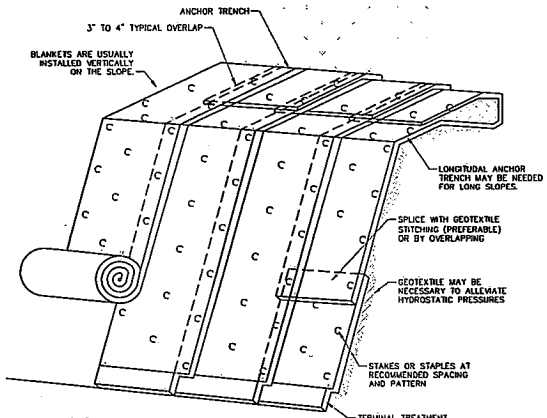
DIVERSION DI
NTS

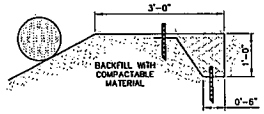


SECTION B-B



SECTION A-A

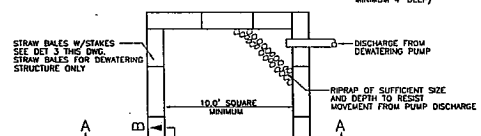




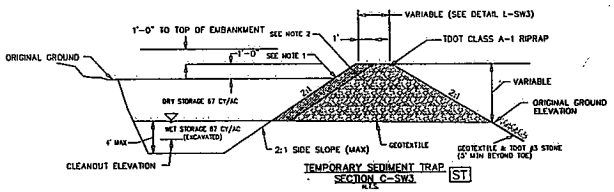
ANCHOR TRENCH
NTS

NOTES:
1. STITCHING BLANKET SEMAS IS PREFERABLE TO OVERLAPPING BLANKET SEAMS.
2. STACKING OR STAPLING LAYOUT SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SLOPE AND GRADE.

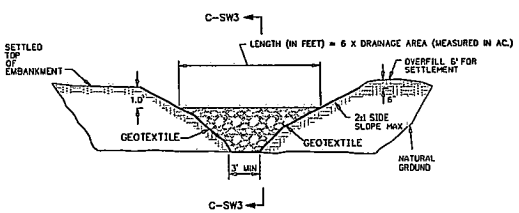
EROSION CONTROL BLANKET/MATTING – SLOPE INSTALLATION MA
NTS



DEWATERING STRUCTURE DW
STRAW BALE/SILT FENCE TYPICAL DETAIL 5 (AS REQUIRED AT PUMP LOCATIONS)
NTS

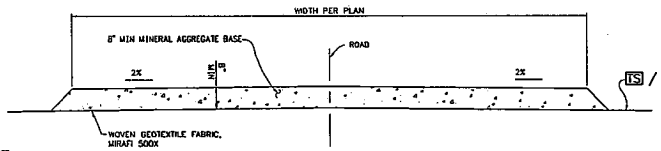


TEMPORARY SEDIMENT TRAP SECTION C-SW3
N.T.S. ST



DETAIL B-SW3
TEMPORARY SEDIMENT TRAP
N.T.S.

NOTE:
1. REMOVE SEDIMENT WHEN SEDIMENT HEIGHT IS ONE-HALF THE HEIGHT OF THE WET STORAGE ZONE.
2. COARSE AGGREGATE SHALL BE TDOT #3, #357, OR #5.



NOTE:
MINERAL AGGREGATE BASE SHALL CONFORM TO TYPE "A" GRADING "D" PER T.D.O.T. SPECIFICATIONS SECTION 303.

ROADWAY TYPICAL SECTION
NTS

LEGEND

DI	DIVERSION
OP	OUTLET PROTECTION
ST	SEDIMENT TRAP
CD	CHECK DAM
TS	TEMPORARY SEEDING
PS	PERMANENT SEEDING
MU	MULCH
SF	SILT FENCE
MA	EROSION CONTROL MAT
CE	CONSTRUCTION ENTRANCE/EXIT
FR	FILTER RING
A	CONSTRUCTION TRAFFIC SIGNAGE
B	FLASHING WARNING LIGHT
RR	RIP RAP

FOR SWPPP PURPOSE ONLY NOT FOR CONSTRUCTION

COMPANION DRAWINGS
SK-SWPPP-001 THRU SK-SWPPP-0012

SCALE: AS NOTED EXCEPT AS NOTED

TEMPORARY ASH PROCESSING & STORAGE
KINGSTON PENINSULA

CIVIL
EROSION AND SEDIMENT CONTROL
DETAILS SHEET 10

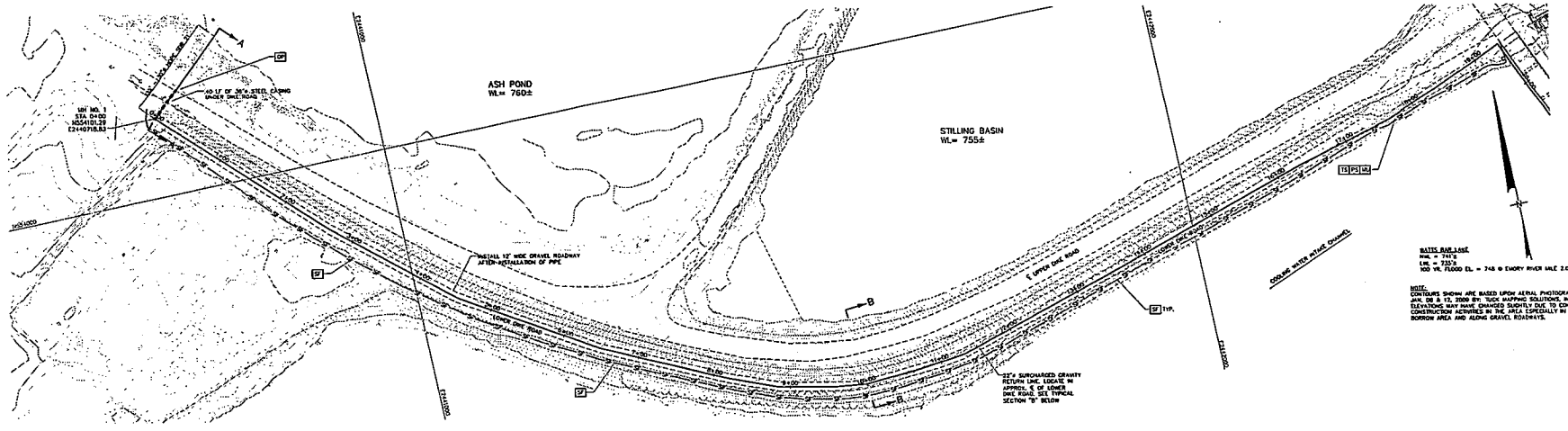
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R09 | 4/27/09 | 36 | C | SK-SWPPP-010 R 0

PLOT FACTOR:1:1
TVA

C.A.D. DRAWING DO NOT ALTER MANUALLY

TASK COMPLETED BY: REV NO.



PLAN
SCALE: 1"=50'

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012

SCALE: AS NOTED
EXCEPT AS NOTED

TEMPORARY ASH PROCESSING & STORAGE
KINGSTON PENINSULA

CIVIL

ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN SHEET 11

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R09 | 04/27/09 | 36 | C | SK-SWPPP-011 R 0

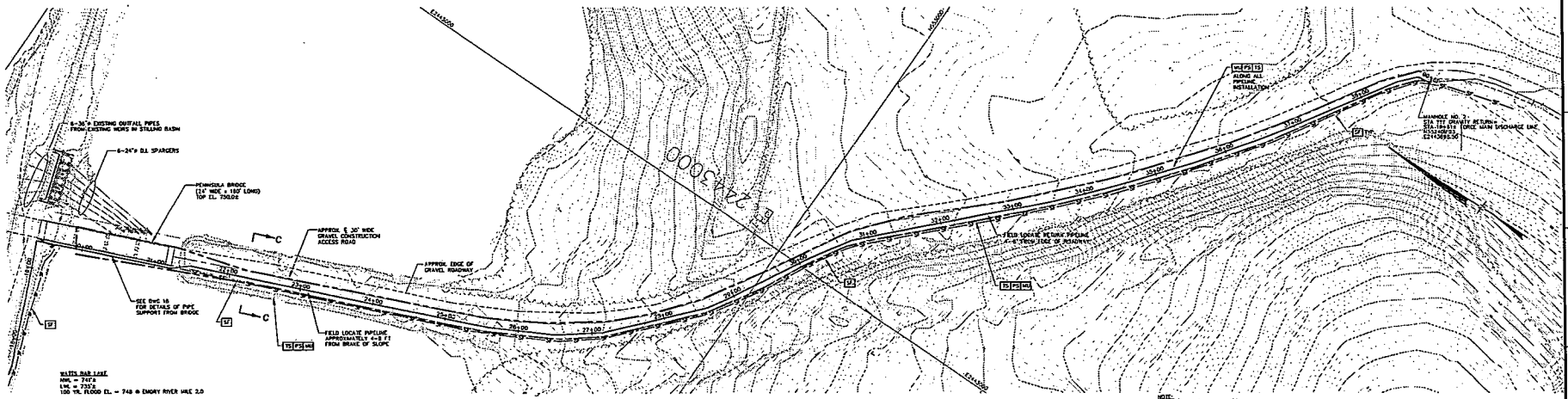
PLOT FACTOR:1:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

TASK COMPLETED BY:

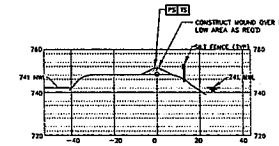
REV NO.

SK-SWPPP-011 | C | 36



PLAN
SCALE: 1"=50'

NOTE:
CONTOURS SHOWN ARE BASED UPON AERIAL PHOTOGRAPHY TAKEN JAN. 08 & 12, 2009 BY: FUGRO MAPPING SOLUTIONS, INC. GROUND ELEVATIONS MAY HAVE CHANGED SLIGHTLY DUE TO CONTINUED CONSTRUCTION ACTIVITIES IN THE AREA ESPECIALLY IN THE BORROW AREA AND ALONG GRAVEL ROADWAYS.



TYPICAL SECTION "C"
HORIZ: 1"=20'
VERT: 1"=20'

FOR SWPPP PURPOSE ONLY
NOT FOR CONSTRUCTION

COMPANION DRAWINGS:
SK-SWPPP-001 THRU SK-SWPPP-012

SCALE: AS NOTED — EXCEPT AS NOTED

TEMPORARY ASH PROCESSING & STORAGE
KINGSTON PENINSULA

CIVIL

ASH PROCESSING AREA 2 EROSION AND SEDIMENT CONTROL PLAN SHEET 12

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R09 | 4/27/09 | 36 | C | SK-SWPPP-012 R 0

PLOT FACTOR:1:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

TASK COMPLETED BY: | REV NO.

36 C SK-SWPPP-012

Attachment 6
Notice of Termination (NOT)

Department of Environment and Conservation
Division of Water Pollution Control

NOTICE OF TERMINATION (NOT) – STORM WATER DISCHARGES CONSTRUCTION ACTIVITY

This form is required to be submitted when requesting termination of coverage from the General NPDES Permit for Discharges of Storm Water Associated with Construction Activities. The purpose of this form is to notify the Tennessee Department of Environment and Conservation that you, as a permitted operator of storm water discharges from a construction activity, no longer have responsibilities related to erosion and sediment controls at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local Division of Water Pollution Control, Environmental Field Office (EFO) address (see table below), and marked **"Storm Water Notice of Termination"**. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). **Type or print clearly, using ink and not markers or pencil.**

Site Name:	**Tracking No.**
Street Address or Location:	
Site Description:	

Site Owner/Developer: (person, company, or legal entity that has operational or design control over construction plans and specifications)

Site Owner/Developer Contact: (individual responsible for site)	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone: ( )	E-mail:		

Check the reason for termination of permit coverage:

	Storm water discharge associated with construction activity is no longer occurring and the area previously under construction has been restabilized (i.e., termination of initial permittee coverage). Explain:
	You are no longer the operator of the facility/site (i.e., termination of primary or secondary permittee coverage). Name of Permittee requesting termination of coverage: Explain:

Certification and Signature (must be signed by president, vice-president or equivalent, or ranking elected official)

I certify under penalty of law that either: (a) all storm water discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge storm water associated with construction activity under this general permit, and that discharging pollutants in storm water associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of storm water discharges associated with construction activity means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time to insure final stabilization is maintained, or that all storm water discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated from the portion of the construction site where the operator had control.

Operator name; print or type	Signature	Date

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	2510 Mt. Moriah Road STE E-645	38115-1520	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	2484 Park Plus Drive	38401	Johnson City	2305 Silverdale Road	37601

Attachment 7
SWPPP Approval Letter (Reserved)

Attachment 8
Storm Water Pollution Prevention Plan Contacts

Storm Water Pollution Prevention Plan Contacts for:

Kingston Fossil Plant – Ash Processing and Temporary Storage Area
714 Swan Pond Road
Harriman, Tennessee 37748
Phone (865) 717-2500

Operator(s):
Tennessee Valley Authority
Mike Scott, TVA Project Manager
714 Swan Pond Road KFP-1T-KST
Harriman, Tennessee 37748
Phone:(865)717-6508
mtscott2@tva.gov

Project Manager:
Tennessee Valley Authority
Mike Scott, TVA Project Manager
714 Swan Pond Road KFP-1T-KST
Harriman, Tennessee 37748
Phone:(865)717-6508
mtscott2@tva.gov

SWPPP Contact/ Project Program Administrator (Environmental), PA(E):
Tennessee Valley Authority Kingston Fossil Plant
Butch Parton
714 Swan Pond Road
Harriman, Tennessee 37748
Mobile: (865)660-4458

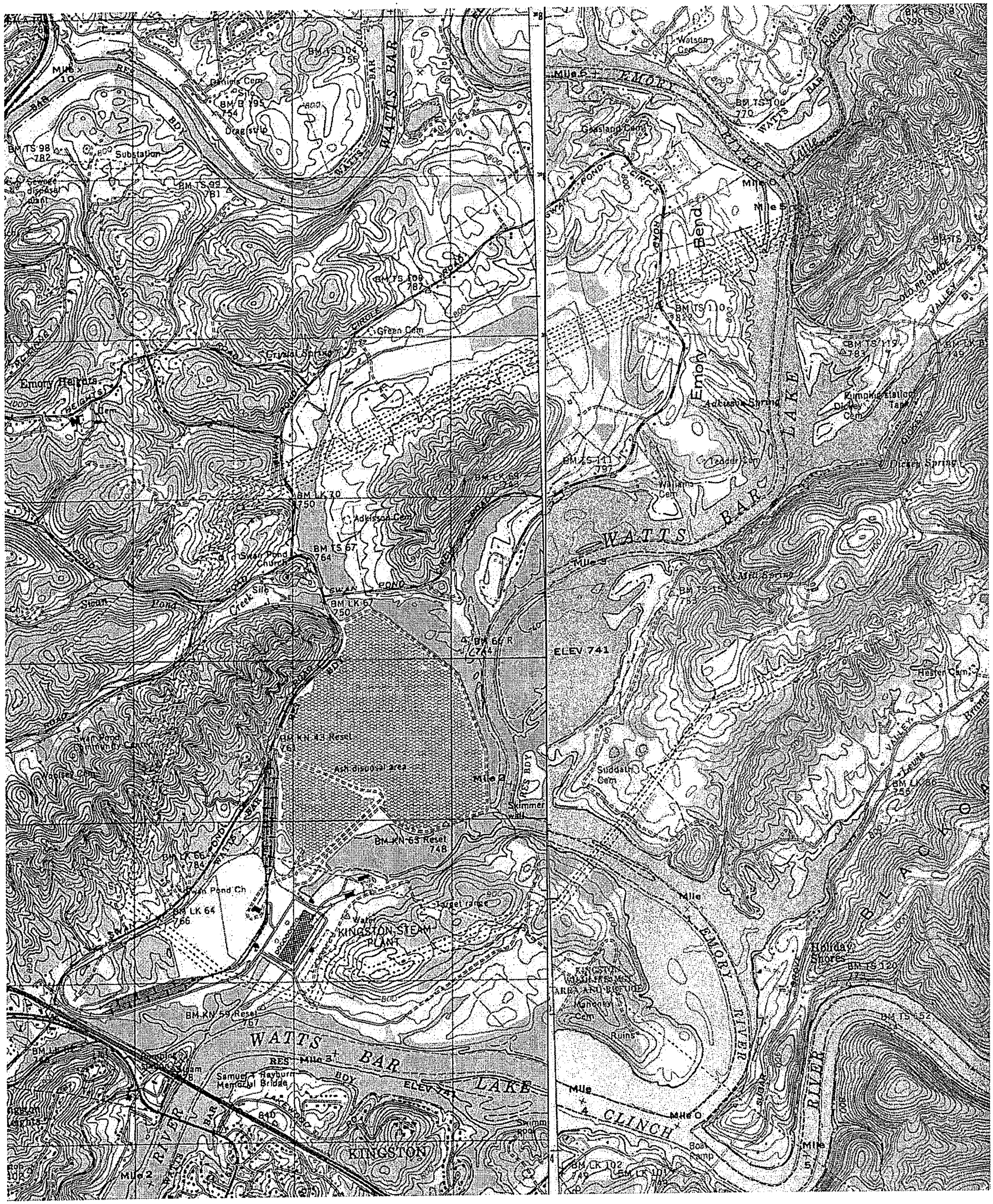
This SWPPP was Prepared by:
WorleyParsons Group, Inc.
David A. Wilson, PE
633 Chestnut Street
Chattanooga, TN 37450
Phone: (423)757-5861
Fax: (423)266-0922
Email: David.A.Wilson@WorleyParsons.com

Plant Program Administrator (Environmental), PA(E):
Tennessee Valley Authority Kingston Fossil Plant
Cynthia McCowan
714 Swan Pond Road
Harriman, Tennessee 37748
(865)-717-2180
COWebb@tva.gov

Integrated Pollution Prevention (IPP) Plan Coordinator:
Tennessee Valley Authority Kingston Fossil Plant
Andy Polahar
714 Swan Pond Road
Harriman, Tennessee 37748
(423)-751-4811

Emergency 24-Hour Contact:
Tennesse Valley Authority
Operations Duty Specialist
(423 751 1700

Attachment 9
USGS Topographic Map


WATTS BAR
EMORY RIVER
Emory Heights
Swan Pond Church
Crystal Spring
Green Cem
Adkisson Cem
Emory Bend
LAKE
WATTS BAR
ELEV 741
Ash disposal area
Skimmer wall
Target range
KINGSTON STEAM PLANT
Swan Pond Ch
Holiday Shores
WATTS BAR LAKE
Samuel Rayburn Memorial Bridge
CLINCH
KINGSTON
Boat Ramp
Siddath Cem
Mahoney Cem
Ruins
Substation
Dickey Spring
Dickey Cem
Pumping Station
Watson Cem
Grassland Cem
Mile 2
Mile 3
Mile 4
Mile 5
Mile 0
BM LK 67
750
BM TS 67
764
BM LK 64
766
BM KN 43 Reset
761
BM KN 65 Reset
748
BM KN 59 Reset
767
BM TS 109
787
BM TS 110
BM TS 106
770
BM TS 111
BM TS 98
782
BM TS 99
781
BM LK 30
750

Attachment 10
Construction Storm Water Inspection Certification

Department of Environment and Conservation
Division of Water Pollution Control

Construction Storm Water Inspection Certification

(Twice weekly inspections are required only for all sites.)

Construction Site Information **Outfall No.** ___ **(or station no. or other identifier of drainage area represented)**

NPDES Permit No. TNR ____________ Notice of Coverage (NOC) Date: ______________ County: ________________

Name of Project: ____

Developer and/or Contractor Name: ____

Month/Year	Week 1	Week 2	Week 3	Week 4	Week 5
	Yes or *No* / Initials	*Yes* or *No* / Initials	*Yes* or *No* / Initials	*Yes* or *No* / Initials	*Yes* or *No* / Initials
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/
________, ______	Date:	Date:	Date:	Date:	Date:
Inspections Performed	/	/	/	/	/
E&S Controls in Order	/	/	/	/	/

Provide the following information for the person(s) who have performed and initialed the above inspections. If more than two persons have performed these inspections, give information for the two persons who performed the most numbers of inspections.

Initials: ________	Name: ____________________	Phone No. ______________________
Initials: ________	Name: ____________________	Phone No. ______________________

Quarterly Inspection Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated information presented. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that inspections of storm water discharge points (outfalls) and of erosion and sediment controls have been performed as recorded in the table above. I certify that erosion prevention and sediment controls in the drainage area of the identified outfall were installed as planned and designed and in working order as recorded in the table above. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name ____________________ Title ____________________ Signature ______________________

Company Date ______

CN-1173 (Rev. 05-05) RDAs 2399 and 2400

APPENDIX C

Attachment 11
Sequence of Control Measure Implementation, Maintenance, Removal Log

Sequence Of Control Measure Implementation, Maintenance, And Removal Log Form

Log to be maintained onsite and completed each time a control measure is implemented, maintained, or removed

Contractor:_____ **Contract No.:**_____ Page _____ of ____

Control Measure and Location	Implementation, Maintenance, or Removal	Receiving Water (Channel #, etc.)	Foreman Initials	Date

Attachment 12
Daily Rainfall Gage Record

DAILY RAINFALL GAGE RECORD

Inspect rainfall gage(s) and record daily inches of rain or "none" in measured rainfall column. Sign sheet for each day and present to designated TVA site representative when sheet has been filled and/or construction is complete. If prolonged storm event occurs, it is recommended that erosion control device checks be performed and results recorded on inspection form. Maintain a copy of this form and provide a copy to the Kingston PA(E) when the form is complete.

Gage Number	Date	Measured Rainfall (inches)	Inspector's Signature

Attachment 13
Storm Water Pollution Prevention Inspection and Maintenance Report Form

STORM WATER POLLUTION PREVENTION INSPECTION AND MAINTENANCE REPORT FORM

Storm water inspections must be performed and documented a minimum of twice per week with the minimal time between inspections being at least 72 hours. Daily inspections are suggested during prolonged periods of rain. USE A SEPARATE SHEET FOR EACH AREA OR CONTROL BEING INSPECTED, SUCH AS VEHICULAR ACCESS POINTS, SILT FENCES, MATERIAL STORAGE AREAS, ROUTINE LITTER PICKUP, ETC. Record the date of inspection, the date and amount of rain recorded if inspection is after a storm event, include the inspector's name and the condition of the area or device being inspected. Document the corrective actions taken or repairs made.

Present to TVA Construction Manager once per month, when sheet has been filled and/or construction is complete. TVA Construction Manager will need to provide a copy to the site Program Administrator (Environmental) when complete or on a monthly basis.

Area being inspected:	

Date Of Inspection	Time Inspection Performed	Describe Condition	Repairs Needed	Date Repairs Done*	Inspector's Signature/Title

*Repairs must be completed within 7 days or before the next rainfall.

Attachment 14
General Information Notice

TVA – KINGSTON FOSSIL PLANT

FLY ASH REMOVAL PROJECT

Description: Construction activities associated with construction of Temporary Storage Area for Ash Handling Operations.

CONTACT: Butch Parton For Storm Water Pollution Prevention Plan located at Kingston Fossil Plant PHONE: (865)660-4458