

**TENNESSEE VALLEY AUTHORITY  
FOSSIL AND HYDRO POWER  
PROJECT AUTHORIZATION SUMMARY**

PM Database Number 3118

Parent Work Document Number 4589

Poc. Symbol SE-24

( X ) New ( ) Revised

Perform Work \_\_\_\_\_

Additional Account # \_\_\_\_\_

Perform Engg Fossil Eng

Retirement Account # \_\_\_\_\_

PLANT/AREA: KINGSTON

Unit: 00

PROJECT NAME: KIF-YARD - COAL RECEIVING SYSTEM

Phase: 3

MAJOR BENEFIT CATEGORY: FUEL HANDLING

**REASON FOR IMPROVEMENT (Identify Problem Area and the Quantifiable Impact):**

Fuel cost accounts for 80.5% of Kingston's operating budget. Kingston's delivered fuel cost was \$0.48/ton higher than the TVA average (excluding Paradise) in FY 94. Kingston's delivered fuel cost is projected to increase 77.5% during the next fifteen (15) years.

**PROBLEM DEFINITION (State the Problem and the Target/Goal to be Achieved):**

NS currently charges a switching fee on coal received via the CSX railway. Kingston's target is to eliminate the switching fee (\$135/car in FY 2000) and the existing NS transportation contract limiting CSX deliveries to 30% of total receipts at Kingston. In addition, this project will eliminate the cost associated with Kingston personnel having to shuttle coal deliveries from Caney Creek to the plant, which is approximately 6 miles.

**ANALYSIS (Verification of the Root Cause and the Cause-and-Effect Relationship):**

A lack of competition between rail carriers prevents Kingston from obtaining the best price possible for delivered coal. Also, the existing rail alignment into the plant prevents rail carriers from delivering unit trains directly into the Kingston full yard.

**SOLUTIONS (Description of Project and Quantification of Benefits Expected):**

Build a new rail line that will allow both CSX and Norfolk Southern to make unit train deliveries to Kingston Steam Plant. A new rail line will provide increased competition, eliminate switching fees, and significantly reduce Kingston's coal handling responsibilities.

**PROJECT SCOPE (Detailed Description of Field Work to be performed):**

Build a new rail line from Harriman Yard to the Kingston Steam Plant that will allow CSX and Norfolk Southern railways to deliver unit trains all the way into the Kingston full yard.

Implementation During Outage # \_\_\_\_\_

Start Date: 11

Finish Date: 11

**RECOMMENDED FOR APPROVAL (Signatures Required):**

K W Burnett

3-31-98

Nathan W. Burnett/Dgs

3/31/98

Project Manager

Date

Plant Manager

Date

PAB Approval

Approvals Outside the PAB

PAB Secretary (Proj > 250K)

Date

Vice President

Date

**TENNESSEE VALLEY AUTHORITY  
FOSSIL AND HYDRO POWER  
PROJECT AUTHORIZATION SUMMARY**

PM Database Number 3118 Parent Work Document Number 4988  
 P. Loc. Symbol SE-24 (X)New ( )Revised  
 Org(s) to Perform Work \_\_\_\_\_ Additional Account # \_\_\_\_\_  
 Org(s) to Perform Engg Fossil Eng Retirement Account # \_\_\_\_\_

PLANT/AREA: KINGSTON Unit: 00  
 PROJECT NAME: KIF-YARD - COAL RECEIVING SYSTEM Phase: 3  
 MAJOR BENEFIT CATEGORY: FUEL HANDLING

**REASON FOR IMPROVEMENT (Identify Problem Area and the Quantifiable Impact):**  
 Fuel cost accounts for 30.5% of Kingston's operating budget. Kingston's delivered fuel cost was \$0.46/ton higher than the TVA average (excluding Paradise) in FY 94. Kingston's delivered fuel cost is projected to increase 77.5% during the next fifteen (15) years.

**PROBLEM DEFINITION (State the Problem and the Target/Goal to be Achieved):**  
 NS currently charges a switching fee on coal received via the CSX railway. Kingston's target is to eliminate the switching fee (\$135/car in FY 2000) and the existing NS transportation contract limiting CSX deliveries to 30% of total receipts at Kingston. In addition, this project will eliminate the cost associated with Kingston personnel having to shuttle coal deliveries from Coney Creek to the plant, which is approximately 6 miles.

**ANALYSIS (Verification of the Root Cause and the Cause-and-Effect Relationship):**  
 A lack of competition between rail carriers prevents Kingston from obtaining the best price possible for delivered coal. Also, the existing rail alignment into the plant prevents rail carriers from delivering unit trains directly into the Kingston full yard.

**SOLUTIONS (Description of Project and Quantification of Benefits Expected):**  
 Build a new rail line that will allow both CSX and Norfolk Southern to make unit train deliveries to Kingston Steam Plant. A new rail line will provide increased competition, eliminate switching fees, and significantly reduce Kingston's coal handling responsibilities.

**PROJECT SCOPE (Detailed Description of Field Work to be performed):**  
 Build a new rail line from Harman Yard to the Kingston Steam Plant that will allow CSX and Norfolk Southern railways to deliver unit trains all the way into the Kingston full yard.

Implementation Owing Outage # \_\_\_\_\_ Start Date: 11 Finish Date: 11

**RECOMMENDED FOR APPROVAL (Signatures Required)**

Project Manager	Date	<i>Walter W. Brown</i>	Date
PAB Approval		Plant Manager	<u>3-31-98</u>
		Approvals Outside the PAB	
PAB Secretary (Proj > 250K)	Date	Vice President	Date

**TENNESSEE VALLEY AUTHORITY  
FOSSIL AND HYDRO  
PROJECT AUTHORIZATION SUMMARY**

PLANT/AREA: KINGSTON PLANT UNIT 00  
PROJECT NAME: KIF-YARD - COAL RECEIVING SYSTEM

Parent Work Document Number 4589  
Record Number 3118

**PREVIOUS APPROVAL FOR PHASE**

**COST SUMMARY (\$000)**

PROJECT PHASE ACTIVITY SCHEDULE			Prior Yrs PAB Appr's	1998	1999	2000	2001	2002	2003	2004	Future Years	Total Project
1 - Study	Start	10/01/94	421	0	0	0	0	0	0	0	0	421
	Complete	02/05/97										
2 - Design and LL Procurement	Start	02/05/96	3205	127	0	0	0	0	0	0	0	3332
	Complete	01/09/98										
3 - Implementation (Incl. Retirement)	Start	04/01/96	1095	5873	9016	15	0	0	0	0	0	15999
	Complete	09/24/99										
Total Project			4721	6000	9016	15	0	0	0	0	0	19752

**EXPLANATION OF COST OR SCHEDULE REVISION:**

Estimate Detail Items Included in Previous Approval Project Costs Above.

Long Lead Procurement: 1010 K  
Retirement: 0 K

<b>Current Budget (Spendplan)</b>		<b>8067</b>	<b>9016</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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**REQUESTED APPROVAL FOR PHASE 3**

**COST SUMMARY (\$000)**

PROJECT PHASE ACTIVITY SCHEDULE			Prior Yrs Actuals	1998	1999	2000	2001	2002	2003	2004	Future Years	Total Project
1 - Study	Start	10/01/94	415	0	0	0	0	0	0	0	0	415
	Complete	02/05/97										
2- Design and LL Procurement	Start	02/05/96	1540	1002	0	0	0	0	0	0	0	2542
	Complete	03/16/98										
3 - Implementation (Incl. Retirement)	Start	04/01/98	1069	4468	9624	1633	0	0	0	0	0	16794
	Complete	10/30/99										
Total Project			3025	5470	9624	1633	0	0	0	0	0	19752

**ECONOMIC EVALUATION:**

**OPTIONS CONSIDERED:**

1. Construct overland conveyor from Harriman Yard to Kingston Fossil Plant (cost \$30 million).
2. Provide facilities for barge coal (not feasible to receive coal of quality needed).
3. Supply coal to Kingston entirely by truck (quantity needed not available at reasonable distance).
4. Provide an alternate rail system to Kingston to eliminate NS control of rail coal into the plant.

Estimate Detail Items Included in Requested Approval Project Costs Above.

Long Lead Procurement: 1010 K  
Retirement: 0 K

**RISK ASSESSMENT/SENSITIVITY ANALYSIS:**

**ECONOMIC CALCULATIONS (Using Medium Load Forecast)**

Rate of Return 31.81% Net Present Value (NPV) 14531K Payback in 5 years NPV for Deferral to next Available Period 0K

**ADDITIONAL INFORMATION:**

This funding request is for the remainder of Phase 3.

**ENVIRONMENTAL REVIEW:** An Environmental Impact Statement has been prepared and approved for this project.