22 March 1994

R G Johnson, LP 2G-C

KINGSTON FOSSIL PLANT - COAL YARD RAINFALL RUNOFF STUDY

Please proceed with Phase I of the subject project and assist Engineering Project Services in developing a Level IV schedule.

PWD (Project Work Document)	KIF009
Parent Short Code (Travel, etc.)	000QWMT
Cost Estimate (Issued 1/28/94)	94126R1
CER (Request for Phase I Costs, 12/21/93)	KIF93-1218-P0
Problem Assessment and Resolution Request	9/2/93

Project Manager	Darrell Howard
Project Engineer	Dan Scott
Lead Engineer	Ken Burnett

Activity numbers for Fossil Engineering personnel can be obtained from Gary Garret, extension 7693.

Attached is a copy of the form, "Project Authorization Summary," prepared by Project Management. Please note that work is scheduled to begin April 4, 1994.

If you have any questions please call me at 4446 or Chuck Bohac at 7319.

Dan Scott

Dan Scott
Project Engineering Services
BR 2G-C

Attachment
cc: K W Burnett, LP 2G-C
C H McFall, BR 4A-C
D A Howard, BR 3D-C
R W Clevenger, SP 3F-C
R M Cole, Kingston
J K Watts, LP 5D-C
RIMS, CST 13B-C

FOSSIL ENGRG
Receiving
MAR 23 '94

Referred	H	INFO	Date
RGJ		✓	23
RAB			
KWB	✓		30
RCC			
VWD			
RWJ			
LAN			
LFN			
WLP			
EBR			
PNF			

Approved
Pre PAB
3/14/94

TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO POWER
PROJECT AUTHORIZATION SUMMARY

Project ~~Control Number~~ Work Document KIF 009

P.R. Loc. Symbol SE-24
Org(s) to Perform Work 70
Org(s) to Perform Engg 68

(X) New ( ) Revised
Addition Account #
Retirement Account #

PLANT/AREA: Kingston - Yard UNIT: Yard

PROJECT NAME: Coal Yard Runoff PHASE: I

MAJOR BENEFIT CATEGORY: (Check only one)

( ) Plant Performance	( ) Asbestos	( ) Work Space Improvement
( ) Fuel Handling	( ) Environmental	( ) Other (specify)
(X) Ash Handling	( ) Safety	

PRIORITY RANKING WITHIN CATEGORY: _____ OF _____ PRIORITY LIST DATE: _____

REASON FOR IMPROVEMENT (Identify Problem Area and the Quantifiable Impact):
Heavy rain conditions caused an NPDES Noncompliance from the coal yard drainage pond in FY 1991. TVA committed to the state of Tennessee to upgrade the system in the "Notice of Noncompliance" for this event. The coal yard drainage system is inadequate to manage a "100-year rainfall event" of 5 inches in 24 hours. Resolution to this problem is required to avoid another violation.

PROBLEM DEFINITION (State the Problem and the Target/Goal to be Achieved):
The coal yard runoff pond should contain any drainage during a heavy rain event of 5 inches during any 24-hour period. After a 5.24-inch rainfall in FY 1991, it became necessary to divert flood waters from the coal yard drainage area to the Clinch River. Heavy rains resulted in the coal yard drainage pond level rising several feet over its banks to flood the pumphouse, thereby rendering the pumps inoperable. The discharge piping has also deteriorated to a point where replacement is required.

ANALYSIS (Verification of the Root Cause and the Cause-and-Effect Relationship):
The drainage basin has "silted up" significantly since it was last maintained and no longer has adequate storage volume to contain a significant rainfall event. The existing pumps have no automatic start mechanism, often have to be manually primed, are maintenance intensive, and no longer deliver nameplate discharge rates. The discharge piping is also maintenance intensive, and may not be adequately sized.

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

Because of frequent maintenance problems, the coal yard drainage pond discharge equipment was marked for upgrade before this rainfall event. It is the intent to install higher capacity pumps and possibly installing larger diameter discharge piping; however a Phase I study might calculate other alternatives. In the study phase, the inadequacy of the system will be evaluated. The system includes the drainage basin, pumps, and discharge piping.

RECOMMENDED FOR APPROVAL (Signatures Required):

Darrell Howard	3/1/94	Kenneth F. Francis for	3-3-94
Project Manager	Date	Plant Manager	Date

PAB Approval		Approvals Outside the PAB	
Sharon L. Walker	3/15/94		
Pre-PAB Secretary (Proj < 250K)	Date	Vice President	Date
		Senior Vice President	Date
PAB Secretary (Proj > 250K)	Date	Generating Design & Development	Date

PRESIDENT, GENERATING GROUP APPROVAL: _____ Date

TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO POWER
PROJECT AUTHORIZATION SUMMARY

PLANT/AREA: Kingston Yard
PROJECT NAME: Coal Yard Runoff

Project Control Number KIF009

PREVIOUS APPROVAL

COST SUMMARY ($000)

PROJECT PHASE ACTIVITY/SCHEDULE		PRIOR YEARS	1994	1995	FUTURE YEARS	TOTAL PROJECT
1-Study	Start ____					
	Complete ____	0	0	0	0	0
2-Design	Start ____	0	0	0	0	0
	Complete ____					
Long-Lead Procurement		0	0	0	0	0
Total Phase 2		0	0	0	0	0
3-Implementation	Start ____					
	Complete ____	0	0	0	0	0
Total Project		0	0	0	0	0

EXPLANATION OF COST OR SCHEDULE REVISION:

Amount Included in Current Budget		0		0		

CURRENT APPROVAL:

COST SUMMARY ($000)

PROJECT PHASE ACTIVITY/SCHEDULE		PRIOR YEARS	1994	1995	FUTURE YEARS	TOTAL PROJECT	ACTUAL TO-DATE
1-Study	Start 04/04/94						
	Complete 06/10/94	0	28	0	0	28	0
2-Design	Start ____	0	TBD	0	0	0	0
	Complete ____						
Long-Lead Procurement		0	TBD	0	0	0	0
Total Phase 2		0	0	0	0	0	0
3-Implementation	Start ____						
	Complete ____	0	TBD	0	0	0	0
Total Project		0	TBD	0	0	TBD	0

ECONOMIC EVALUATION:*

Rate of Return	NA
Net Present Value (NPV)	NA
(NPV) Payback (Years)	NA
(NPV) Deferral**	NA

RECOMMENDED ALTERNATIVE: NA

OPTIONS CONSIDERED/ECONOMIC EVALUATION:

NA

RISK ASSUMPTIONS/SENSITIVITY ANALYSIS:

NA

*15% Medium Load Forecast 15 Yr. Eval. Period

**Next Avail. Period

ADDITIONAL INFORMATION:

Implementation During Outage # NA Start Date: _____ Finish Date: _____

ENVIRONMENTAL REVIEW: This project is a routine improvement of existing TVA facilities, and it has been determined that this project falls within categorical exclusion Section 5.2.1 of the TVA Instruction IX ENVIRONMENTAL REVIEW and requires neither environmental assessment nor an environmental impact statement.