UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 24, 1987

Docket Nos. 50-390/391

MEMORANDUM FOR: John A. Zwolinski, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

FROM: Rajender Auluck, Project Manager
TVA Projects Division
Office of Special Projects

SUBJECT: TRIP REPORT FOR JULY 22-23, 1987

Re: Watts Bar Nuclear Plant, Units 1 and 2

The report covers the period of July 22-23, 1987, while I was at the Watts Bar Nuclear Plant site. Activities undertaken during this visit included:

- Discussion with John McDonald (TVA) and Glen Walton (NRC) on TVA's compliance with ASME Section III requirements with respect to welding activities at the Watts Bar site.

- Discussion with Glen Walton regarding the need for a QA inspection with respect to TVA's procedures for interfacing with the four A/E contractors selected to complete the engineering activities at the Watts Bar site. It was decided to request OSP technical staff to perform such an inspection.

- Attended TVA's presentation on Hanger and Analysis Update Program (HAAUP) for Watts Bar Unit 1. The handout provided by TVA is attached. The list of attendees is also attached.

TVA stated that the main objective of the program is to resolve all outstanding items against the qualification of the piping and supports in the scope of this program. As stated in the attachment, the scope will include all Category I and pressure boundary piping, all instrument line interfaces and the process pipe, all radiation monitoring and sampling lines that require thermal analysis, and all the associated supports.

It was agreed at the meeting that TVA will make a presentation for the NRC-OSP staff at the appropriate time.

Rajender Auluck, Project Manager
TVA Projects Division
Office of Special Projects

Attachments:
1. List of Attendees
2. TVA Handout

cc: See next page

TVA:OSP/LA	TVA:OSP/PM	TVA:AD/P
CJamerson	RAuluck:pw	JZwolinski
8/20/87	8/21/87	8/24/87

cc:
General Counsel
Tennessee Valley Authority
400 West Summit Hill Drive
E11 B33
Knoxville, Tennessee 37902

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Tennessee Valley Authority
5N 157B Lookout Place
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Mr. George Toto
Tennessee Valley Authority
Watts Bar Nuclear Plant
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Mr. J. A. McDonald
Tennessee Valley Authority
Watts Bar Nuclear Plant
P.O. Box 800
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Mr. D. L. Williams
Tennessee Valley Authority
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W10 B85
Knoxville, Tennessee 37902

Honorable Johnny Powell
County Judge
Meigs County Courthouse
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Decatur, Tennessee 37322

Tennessee Department of
Public Health
ATTN: Director, Bureau of
Environmental Health Services
Cordell Hull Building
Nashville, Tennessee 37219

Honorable Dan Wade
County Judge
Rhea County Courthouse
Dayton, Tennessee 37321

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
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Resident Inspector/Watts Bar NP
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Spring City, Tennessee 37381

Mr. Richard King
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Manager of Nuclear Power
Tennessee Valley Authority
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DISTRIBUTION FOR TRIP REPORT DATED: August 24, 1987

Facility: Watts Bar Nuclear Plant, Units 1 and 2*

Docket File	
NRC PDR	
Local PDR	
Projects Rdg	
WB File	
JKeppler/JAxelrad	
SEbneter	
SRichardson	
JZwolinski	
SRConnelly	EWS-461
RAuluck	
GWalton	R-II
SKChaudhary	R-I
PGHumphrey	R-II
TBPowell	R-II
CJamerson	
OGC-Bethesda	MNBB-9604
FMiraglia	P-428
EJordan	MNBB-3302
JPartlow	EWS-360
ACRS (10)	
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Hon. A. Gore	
Dr. Henry Myers	
PGwynn	H-1149
CMiller	H-1149
JAustin	H-1149
TRehm	MNBB-6209
FCombs	H-1159
JMilhoan	H-1149
CAder	H-1149

*Copies sent to persons on facility service list

ATTACHMENT 1

LIST OF ATTENDEES

Raj Auluck	NRC
Glen Walton	NRC
S. K. Chaudhary	NRC
P. G. Humphrey	NRC
T. B. Powell	NRC
Kathy Ashley	TVA
J. E. McCord	TVA
Ron Beck	Bechtel North America

ATTACHMENT 2

HANGER AND ANALYSIS UPDATE PROGRAM (HAAUP)

FOR WATTS BAR UNIT 1

Lead Engineer: J. E. McCord, Trailer A10, WBN, X1051

Assistant Project Engineer: T. C. Cruise, C117 IOB, WBN, X8826

SCOPE:

all piping rigorously analyzed piping
all piping alternately analyzed piping
all associated supports

all Category I and pressure boundary piping (belongs to mechanical discipline)
all instrument line interfaces with the process pipe
all radiation monitoring and sampling lines that require thermal analysis
all associated supports

OBJECTIVE:

A one time program to resolve all outstanding items against the qualification of the piping and supports in the scope of this program.

Resolution of the following:

AFL items moved to BFL – 79-02
technical issues required to license a Watts Bar vintage plant in 1989
employee concerns
conditions adverse to quality
engineering change notices

MAJOR ELEMENTS:

Identify issues

Determine position

Develop technical justification

Modify Tpipe

Modify upper tier documents

Establish procedural controls

Interface with NRC

Perform walkdown of piping and supports in the plant

Reconcile discrepancies

Qualify piping

Qualify supports

Modify plant configuration

Perform final walkdown

HANGER AND ANALYSIS UPDATE PROGRAM

ISSUES

1. SUPPORT FLEXIBILITY
2. FRICTION
3. LAPPING
4. ZPA
5. TEMPERATURE CUTOFF
6. ENVIRONMENTAL TEMPERATURE ON PIPE AND SUPPORTS
7. PIPING OPERATING MODES
8. SUPPORT WEIGHT ON PIPE
9. FUNCTIONALITY
10. EFFECT OF SUPPORT MASS ON DESIGN
11. FLUID TRANSIENTS
12. TOLERANCES

HANGER AND ANALYSIS UPDATE PROGRAM

ISSUES (CONTINUED)

13. LOAD RATING OF SUPPORTS

14. EQUIPMENT FLEXIBILITY IN THE ANALYSIS MODEL

15. WELD PENALITY

16. INTEGRAL WELDS MINIMUM DISTANCE FROM OTHER PIPE WELDS FITTINGS AND COMPONENTS

17. DESIGN INPUTS FOR ANALYSIS

18. UPLIFT ON HANGER RODS

19. LINE CONTACT

20. SUBSTITUTION OF COMPONENTS

21. SURFACE PLATE WELDED TO EMBEDDED PLATES

22. PVRC DAMPING AND INDEPENDENT SUPPORT MOTION

CHARACTERS--ROLES

WBP-HAAUP	develop, executes, monitor HAAUP
Duke Power Company	justify positions and revise documents
Bechtel North American Company	perform walkdowns, qualify piping and supports
WBN Modifications	modify piping and supports as required
WBN Engireering Assurance	review engineering work against requirements
WBN Quality Assurance	review construction to engineering outputs
Ebasco	provide inputs, update interfaces with new data from new piping and support qualification
Westinghouse	provide interface data for reactor coolant loop