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NOV 04 1991

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - PRESERVICE INSPECTION PROGRAM

This letter provides information on the Watts Bar Nuclear Plant Preservice Inspection (PSI) Program to assist in your review and approval process.

Enclosure 1 contains TVA's Revision 23 to Watts Bar Nuclear Plant Unit 1, PSI Program TI-50A. This is a general revision which includes revised Request for Relief ISI-4. This request for relief was previously submitted December 11, 1990.

Enclosure 2 is in response to a request from NRC that TVA update the ASME Section XI PSI Program for WBN Unit 1 to include portions of the ASME Section XI 1983 Edition, Winter 1983 Addenda. This will bring the program into compliance with the intent of 10 CFR 50.55 a(iv). The program changes described in the enclosure will be incorporated in the next program revision of PSI Program TI-50A.

Enclosure 3 contains the commitment made in Enclosure 2 to incorporate the augmented examination section in the next program revision of PSI Program TI-50A.

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U. S. Nuclear Regulatory Commission

NOV 04 1991

If you have any questions, please telephone P. L. Pace at (615) 365-1824.

Sincerely,


John H. Garrity

Enclosures

cc (Enclosures):

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ENCLOSURE 1

PRESERVICE INSPECTION PROGRAM
FOR WATTS BAR NUCLEAR PLANT

The attachment is our revised Technical Instruction (TI) for Watts Bar Nuclear Plant Unit 1, Preservice Inspection (PSI) Program TI-50A, Revision 23, for your review. This is a general revision which includes revised Request for Relief ISI-4 that was previously submitted (December 11, 1990). This revision adds Code Case N-402 for eddy current calibration material and Code Case N-461 for alternative rules for piping calibration block thickness. In addition, this revision also updates the Code Examination Category (C-F) for Class 2 pressure-retaining welds in piping and the Code Examination Category (B-F) for dissimilar metal welds to the American Society of Mechanical Engineers Section XI, 1977 Edition, Summer 1978 Addenda, for examinations performed after September 1, 1991.

The following list is the status of each relief request that has been identified for the PSI Program for Unit 1. We do not anticipate adding any more requests for relief to the program.

ISI-1	No change
ISI-2	Withdrawn
ISI-3	Withdrawn
ISI-4	Revised to identify piping welds that require relief requests
ISI-5	Revised to clarify inspection requirement
ISI-6	No change
ISI-7	Withdrawn
ISI-8	Withdrawn
ISI-9	No change
ISI-10	No change
ISI-11	No change
ISI-12	Withdrawn
ISI-13	No change
ISI-14	No change
ISI-15	No change

ENCLOSURE 2

PRESERVICE INSPECTION PROGRAM
FOR WATTS BAR NUCLEAR PLANT

This is in response to the request from NRC that TVA update the ASME Section XI PSI Program for WBN Unit 1 to use portions of the ASME Section XI 1983 Edition, Winter 1983 Addenda (83W83) for the selection and exemption requirements of Examination Category C-F-1 of Table IWC-2500-1 and paragraph IWC-1220. These requirements are to be used on the Emergency Core Cooling System (ECCS), Residual Heat Removal (RHR), and the Containment Spray (CSS) Systems. TVA will revise the WBN Unit 1 PSI Program, TI-50A, to include the following augmented examination section.

Preservice examination requirements for the ECCS, HPSI, RHR, and CS Class 2 piping welds will be updated to use portions of the ASME Section XI 1983 Edition, Winter 1983 Addenda. Paragraph IWC-1220 (components exempt from examination) and Examination Category C-F-1 of Table IWA-2500-1 will be utilized for exemption requirements, weld selection (parts examined), extent of examination, and examination method. Examination techniques, evaluation standards, and examination requirements/figure number will be in accordance with Section 3.0 of this program. Selected welds that have not already been examined will be examined to establish an information augmented preservice examination. These welds will be included in the preservice NIS-1 report. These information augmented examinations are imposed by NRC.

This revision to the augmented examination section will be incorporated in the next program revision of PSI Program TI-50A.

Below is a summary of the approximate number of additional welds that will be required per the augmented examination section. The number of Class 2 welds which will require examination was determined from ASME Section XI 83W83, Examination Category C-F-1 of Table IWC-2500-1. Examination Category C-F-1 of Table IWC-2500-1 excludes welds from examination due to pipe nominal wall thickness, but does not exclude them from the total weld count. These welds are identified in the table below, as excluded welds. The following defines the approximate number of welds requiring examination:

Total number of nonexcluded welds in population	1235
Total number of excluded welds by Examination Category C-F-1	<u>784</u>
Total population of welds	2019
Number of CSS welds requiring volumetric and surface examination	27
Number of CSS welds requiring surface examination only	<u>2</u>
Total number of welds in CSS requiring examination	29
Number of Chemical Volume Control System (CVCS) welds requiring volumetric and surface examination	15
Number of CVCS welds requiring surface examination only	<u>4</u>
Total number of welds in CVCS requiring examination	19

ENCLOSURE 2

PRESERVICE INSPECTION PROGRAM
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Number of RHR welds requiring volumetric and surface examination	35
Number of RHR welds requiring surface examination only	<u>0</u>
Total number of welds in RHR requiring examination	35
Number of Safety Injection System (SIS) welds requiring volumetric and surface examination	51
Number of SIS welds requiring surface examination only	<u>17</u>
Total number of welds in SIS requiring examination	68
Total number of welds requiring examination	151

The total number of welds required to be examined by ASME Section XI 83W83 is approximately 151. Preservice volumetric examinations have been performed by TVA on 58 of the 151 welds in accordance with ASME Section XI 1974 Edition, Summer 1975 Addenda. ASME Section XI 83W83 paragraph IWC-1220 (components exempt from examination) and Examination Category C-F-1 of Table IWA-2500-1 will be utilized for exemption requirements, weld selection (parts examined), extent of examination, and examination method. Examination techniques, evaluation standards, and examination requirements/figure number will be in accordance with Section 3.0 of PSI Program TI-50A for the additional examinations.

ENCLOSURE 3

LIST OF COMMITMENTS

The augmented examination section to bring the Preservice Inspection Program into compliance with the intent of 10 CFR 50.55 a (iv) will be incorporated in the next program revision of Preservice Inspection Program TI-50A.