## TENNESSEE VALLEY AUTHORITY NRC PECITIN

CHATTANOOGA, TENNESSEE 37401

#### 400 Chestnut Street Tower II

November 24, 1982 NOV 30 AID . 38

U.S. Nuclear Regulatory Commission Region II ATTN: James P. O'Reilly, Regional Administrator 101 Marietta Street, Suite 3100 Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Enclosed is our response to R. C. Lewis' October 21, 1982 letter to H. G. Parris transmitting Inspection Report Nos. 50-259/82-33, -260/82-33, -296/82-33 regarding activities at our Browns Ferry Nuclear Plant which appeared to have been in violation of NRC regulations. We have enclosed our response to Appendix A, Notice of Violation. If you have any questions, please call Jim Domer at FTS 858-2725.

A two-day extension was discussed with and granted by F. Cantrell of your staff on November 22, 1982.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager Nuclear Licensing

Enclosure

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# ENCLOSURE RESPONSE - NRC INSPECTION REPORT NOS. 50-259/82-33, 50-260/82-33, AND 50-296/82-33 R. C. LEWIS' LETTER TO H. G. PARRIS DATED OCTOBER 21, 1982

#### Item A (259, 260, 296/82-33-02)

10 CFR 50.55a(g) requires the licensee to conduct inservice tests to verify the operational readiness of pumps and valves in accordance with ASME Section XI (74S75).

Contrary to the above, maintenance of summary status listing for pumps and valves and increased test frequency for two pumps were not accomplished in accordance with ASME Section XI as described below:

- 1. ASME Section XI, IWP-6210, and IWV-6210 requires that the licensee maintain summary lists of pumps and valves which portray the current status of the testing program. The licensee did not prepare or maintain the required lists.
- 2. ASME Section XI, IWP-3230, requires a doubling of pump test frequency when pump test values fall into its specified "Alert Range." Test values obtained for RHR Service Water pump B-1 on 3/20/82 and for Emergency Equipment Cooling Water pump B-3 on 7/24/82 were in the "Alert Range". The licensee failed to increase the test frequency for these pumps.

This is a Severity Level IV Violation (Supplement I).

A.1

# 1. Admission or Denial of the Alleged Violation

TVA denies the violation occurred as stated.

2. Reasons for Denial

In accordance with ASME Section XI, IWP-6210 and IWV-6210, a summary listing of all pumps and of all valves contained in Browns Ferry Nuclear Plant's ASME Section XI test program is maintained to show the current status of the test program. In addition, an accumulative listing of test results of each component, both pumps and valves, is maintained to show the current status of each component. The current status of the test program can be found in the latest ASME Section XI test program submittal to NRC. The current status of each component can be found in the accumulative surveillance instructions (SI) maintained by the cognizant engineer.

At the time the inspector identified his concern with Browns Ferry Nuclear Plant's ASME Section XI test program summary listing to plant personnel, he was informed by Browns Ferry personnel that the summary listing existed per the preceding paragraph and was believed to be adequate to meet the requirements of IWP-6210 and IWV-6210. It should also be noted that this is the first inspection since Browns Ferry's Section XI program was first submitted in March 1977 that questioned whether the Browns Ferry summary listing did not meet the intent of IWP-6210 and IWV-6210.

#### 1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated. However, because of the minor safety significance, we believe that a Level V classification is appropriate.

# 2. Reasons for the Violation if Admitted

The cause of this violation was a lack of communication between sections and between personnel. The front of the pump SI data cover sheets has a signoff for completely acceptable results and a signoff for doubling the frequency of the SI. When the ASME Section XI cognizant reviewer has analyzed the test results of the pumps, he signs the appropriate place on the data cover sheet and includes any necessary remarks or instructions in the remarks sections. The SI is then sent to the Plant Services Unit which has the responsibilities for scheduling all SIs that the plant performs and for increasing the test frequency on those pumps that require more frequent surveillance. A new cognizant reviewer had taken over on ASME Section XI and was not aware that the last cognizant reviewer had always brought Plant Services attention to any SI that was not completely acceptable. Since the cognizant reviewer had not brought special attention to the particular SIs mentioned, Plant Services did not catch the increased frequency requirement for the individual pumps mentioned. The additional tests were not performed for the two pumps.

# 3. Corrective Steps Which Have Been Taken and Results Achieved

The next regularly scheduled test on each pump was completely acceptable. The ASME Section XI reviewer has been told to bring Plant Services attention to any SI that is not completely acceptable.

#### 4. Corrective Steps Which Will Be Taken To Avoid Further Violations

Plant Services personnel will be instructed to review all SIs dealing with ASME Section XI to check for any pumps that will require increased test frequency. If a pump requires an increased test frequency, the Plant Services unit will coordinate with the section that performs the SI to schedule the test for the required frequency. The Section XI cognizant reviewer will continue to inform Plant Services of any pump that requires increased surveillance tests.

## A.2

# 5. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by December 3, 1982, when Plant Services personnel will have been instructed as noted in Item 4.

### Item B (259, 260, 296/82-33-01)

10 CFR 50, A, endix B, Criterion V, as implemented by Topical Report TR 75-01, paragraph 17.2.5, requires the licensee to ensure that activities affecting quality are prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and that these instructions, procedures, or drawings include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, the licensee did not ensure that two documented nondestructive testing procedures were appropriate under all circumstances encountered, nor did he ensure that the procedures included appropriate quantitative or qualitative acceptance criteria for determining that nondestructive testing objectives would be satisfactorily accomplished as described below:

1. Procedure N-UT-4R2, "Ultrasonic Examination of Nuclear Uncladded Vessels and Nozzles in the Thickness Range of 0.20 Inches to 2.5 Inches", is intended for use in performance of inservice inspections and is required to comply with the applicable Code specified by 10 CFR 50.55a(g), which is ASME Section XI (74S75). The Code requires that the procedure assure the entire volume of metal contained beneath the surface to be examined. However, for material thicknesses of 2 to 2 1/2 inches, instructions given in N-UT-4 are inappropriate in that they can result in incomplete examination of the required volume through improper specification of a calibration point.

The Code depicts the required metal coverage for inspections like those covered by N-UT-4 in Code Figures IWB-3511 and IWB-3512. However, N-UT-4 inappropriately depicts the required coverage in accordance with Code Figure IWB-3510.

2. Procedure N-RT-1RO, "Radiography Examination of Nuclear Power Plant Components", provides instructions that are inappropriate and does not contain details required to assure that its intended objectives are satisfactorily accomplished in that:

- (a) Details of the following requirements for performance of the radiography were not directly in the procedure but were referenced from documents (ASME Code Sections) not readily available to personnel performing radiography:
  - Maximum x-ray voltage
  - Maximum source size
  - Source to film distance
  - Penetrameter placement
  - Film quality
  - Geometrical unsharpness
  - Employment of penetrameters and shims
  - Image quality requirements
  - Acceptance standards
- (b) The revisions of the ASME Code Sections referenced by N-RT-1 were not identified.

This is a Severity Level V Violation (Supplement I).

1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

N-UT-4R2 failed to give explicit details of calibration requirements. N-RT-1RO did not delineate proper instructions for performing radiography examinations.

3. Corrective Steps Which Have Been Taken and the Results Achieved

N-UT-4 has been revised to depict the required metal coverage for inspections in accordance with the Code. Code figures were added to this procedure. The requirement that the examination range appear in the left-hand 90 percent of the CRT screen was also added to N-UT-4 to ensure complete examination of the required volume.

N-RT-1 has been revised to include details (maximum X-ray voltage, maximum source size, etc.) of the requirements for the performance of radiography.

All NDE procedures have been reviewed for compliance with applicable Code specifications.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

No further corrective action is required.

5. Date When Full Compliance Will Be Achieved

Full compliance will be achieved January 5, 1983 when N-UT-4R3 and N-RT-1R2 will be approved and issued.

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