

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

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December 16, 1983

U.S. Nuclear Regulatory Commission
Region II
ATTN: James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Enclosed is our response to D. M. Verrelli's November 18, 1983 letter to H. G. Parris transmitting Inspection Report Nos. 50-259/83-43, -260/83-43, -296/83-43 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 Damer at FTS 858-2725.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

D S Kammer

D. S. Kammer
Nuclear Engineer

Enclosure

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RESPONSE TO NRC INSPECTION REPORT NOS.
50-259/83-43, 50-260/83-43, AND 50-296/83-43,
D. M. VERRELLI'S LETTER TO H. G. PARRIS
DATED NOVEMBER 18, 1983

Item A (296/83-43-01)

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings and shall be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, this requirement was not met in that:

1. TI 14, Special Nuclear Materials Control and Accountability System, fuel transfer data sheets for the Unit 3 end of cycle 5 unload, were not adequately prescribed to reflect the correct size of high density fuel rack #1 in the Unit 3 spent fuel pool. TI 14 designated rack #1 as 13 x 17 vice the correct size of 13 x 13.
2. The requirement to verify a correct tagboard in General Operating Instruction 100-3 prior to Unit 3 unload was not adequately completed. The fuel pool tagboard indicated that rack #1 was 13 x 17 vice the correct 13 x 13 size.

This is a Severity Level V Violation (Supplement I), applicable to Unit 3.

1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

A-1

This portion of the violation occurred because of a combination of personnel error and procedural inadequacy. The ongoing modification to the Browns Ferry spent fuel storage pools which involves the addition of high density spent fuel storage racks (HDSFSRs) contributed to the violation.

Fuel assembly transfer forms (FATFs) are utilized to control the movement of special nuclear materials and to document their exact storage locations. The FATFs were developed using a fuel pool map that indicates where every fuel assembly is located in the storage rack along with the rack size. The map had been verified as correctly showing the location of all fuel in the pool. Because the fuel assembly positions are not drawn to scale on the fuel pool map, storage

rack No. 2 (17 by 13) appeared to be in the position designated for storage rack No. 1. Consequently, personnel incorrectly listed the size shown for rack No. 2 on the map (17 by 13) as the size for HDSFSR rack No. 1 (13 by 13) when the FATF for rack No. 1 was prepared. HDSFSR rack No. 1 was not installed until after the fuel pool map had last been verified as correct.

Administrative control procedures were inadequate and contributed to the violation in that both the workplans associated with the rack/fuel pool modifications and the procedures controlling the movement of fuel (TI-14 and FATFs) did not contain steps such that the storage rack sizes would be cross-checked and verified.

The discrepancy in rack size was discovered by operations personnel before the loading of any fuel into the "nonexistent" locations of HDSFSR rack No. 1 (because of its 13 by 13 size instead of 17 by 13). The storage racks were at all times in the correct physical location, and they were installed in accordance with all testing and control requirements and procedures. The capability of the storage racks and fuel pool to effectively perform its intended function was unaffected by the FATF and tagboard problem.

A-2

The exact reason for the incorrect size indication for HDSFSR rack No. 1 on the refuel floor tagboard is unknown but was most probably because of personnel error. Both the tagboard in the control room and the tagboard on the refuel floor were to be changed to reflect the new rack size as soon as HDSFSR rack No. 1 was installed. The rack size indications to be placed on the two tagboards were verified as correct by a nuclear engineer before changing the tagboards. Responsible personnel apparently inadvertently placed an incorrect indication on the refuel floor tagboard. The tagboards were not verified correct after they were changed.

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

All fuel movement was halted as soon as the discrepancies were discovered. The FATFs were revised to indicate the correct HDSFSR size, and the tagboards on the refuel floor and in the control room were corrected and checked, respectively. Fuel movement was once again initiated and proceeded with no further significant problems. Throughout the entire operation, all fuel moved was in every case placed in correct locations and in accordance with applicable instructions and requirements.

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

Workplans will be revised to require that tagboards are correspondingly revised as each new storage rack is added. TI-14 will also be modified to include indications of storage rack size. In addition, GOI-100-3 has already been revised to require that throughout the storage rack/fuel pool modification process, fuel assembly locations and storage rack sizes shown on both the control room and refuel floor tagboards and in TI-14 be verified as correct.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on October 3, 1983 when the FATFs and tagboards were corrected. All procedure revisions will be completed by January 15, 1984.

Item B (260/83-43-02)

10 CFR 50, Appendix B, Criterion IX as implemented by TVA's QA Topical Report, TVA TR 75-1, paragraph 17.2.9 and Operational Quality Assurance Manual (OQAM), part II, section 6.4 requires that measures shall be established to assure that special processes are controlled and accomplished using qualified procedures in accordance with applicable codes, standards, criteria, and other special requirements.

Contrary to the above, this requirement was not met in that temporary alterations were affected to unit 2 high pressure coolant injection system in the form of a temporary test pressure gauge without the issuance of a temporary alteration control form or unreviewed safety question determinations. No reason or record could be found for the installation. The test gauge was installed downstream of valve 73-529 without temporary alteration controls as required by Standard Practice 8.2 and the plant QA program.

This is a Severity Level V Violation (Supplement I), applicable to unit 2.

1. Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

The violation occurred because of personnel error. Although the specific individuals responsible could not be determined, the gauge was apparently mounted for the purpose of remote monitoring of high-pressure coolant inspection (HPCI) booster pump suction pressure.

However, in mounting the gauge, responsible personnel failed to obtain a temporary alterations control form (TACF) as required by Standard Practice 8.2 (Temporary Alterations)

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

The temporary test pressure gauge was removed on October 12, 1983, in accordance with Maintenance Request No. A-134686.

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

All section supervisors are being instructed to remind personnel of the requirements of Standard Practice 8.2 for controlling temporary alterations. Additionally, all personnel will be reminded that test instrumentation such as pressure gauges which are temporarily affixed to plant equipment or systems constitutes temporary alterations.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on October 12, 1983, when the temporary test gauge was removed. The actions described in item 4 will be completed by February 1, 1984.