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AUTH.NAME MEDFORD,M.O. RECIP.NAME AUTHORITY
Tennessee Valley Authority
RECIPIENT AFFILIATION
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SUBJECT: Responds to NRC 890824 ltr re violations noted in Insp Repts
50-259/89-33,50-260/89-33 & 50-296/89-33.Corrective actions:

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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

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SEP 25 1989

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

Gentlemen:

In the Matter of )  
Tennessee Valley Authority )

Docket Nos. 50-259  
50-260  
50-296

BROWNS FERRY NUCLEAR PLANT (BFN) UNITS 1, 2, AND 3 - NRC INSPECTION REPORT  
NOS. 50-259/89-33, 50-260/89-33, AND 50-269/89-33 - RESPONSE TO NOTICE OF  
VIOLATION

This letter provides TVA's response to the notice of violation transmitted by letter from B. A. Wilson to O. D. Kingsley, Jr. dated August 24, 1989. The report cited TVA with two violations. The first violation had two examples for failure to comply with procedures during the performance and review of a Surveillance Instruction (SI). TVA admitted the first example of the violation; however, TVA denied the second example since it was performed within the required timeframe. TVA admitted to the second violation.

The fact that TVA is denying one example of the violation cited for failure to follow procedures should not be construed as a TVA lack of concern in that area. The denial is based on very specific details as noted in the attached response. TVA shares the NRC concerns and has been working to correct the problem. A meeting is currently scheduled for September 28, 1989 between TVA and NRC representatives to brief NRC on the status of procedures in general.

Enclosure 1 provides background information and TVA's response to the violations in the subject report. All corrective actions will be performed by October 15, 1989 and are listed in Enclosure 2.

If you have any questions, please telephone Patrick P. Carier, BFN, at (205) 729-3570.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



Mark O. Medford, Vice President  
and Nuclear Technical Director

Enclosures  
cc: See page 2

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SEP 25 1989

Enclosures

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ENCLOSURE 1

RESPONSE  
NRC INSPECTION REPORT  
NOS. 50-259/89-33, 50-260/89-33, AND 50-296/89-33  
LETTER FROM B. A. WILSON TO O. D. KINGSLEY, JR.  
DATED AUGUST 24, 1989

Violation A

TS 6.8.1.1c requires that written procedures be established, implemented and maintained covering surveillance and test activities for safety related equipment.

Site Directors Standard Practice (SDSP) 2.1, "Site Procedures and Instructions," requires that the site be operated and maintained in accordance with written, approved procedures and instructions which have been formally issued and distributed for use.

Contrary to the above, on July 14, 1989, during the performance of procedure 3-SI-4.5.C.1(2), EECW Pump Operation Surveillance Instruction for the "D1" emergency equipment cooling water (EECW) pump and during the subsequent SI review process, procedures were not properly implemented as follows:

1. Complete vibration data as required by step 7.13.24 was not taken and the vibration acceptance criteria (step 7.13.25) were signed off as being written within the specific limits.

Admission or Denial of the Alleged Violations

TVA admits the violation for this example.

Reason for the Violation (or Finding) if Admitted

During the performance of 3-SI-4.5.C.1(2), an operator inadvertently initialed step 7.13.25 which noted that the displacement vibration acceptance criteria was within limits on the "D1" EECW pump. Velocity vibration data was recorded; however, the velocity vibration baseline had not been established by the BFN inservice testing program. Step 7.13.25 was initialed due to a personnel error when the operator who initialed step 7.13.25 was provided with misinformation from a mechanical test technician who didn't clearly know the vibration baseline status of the D1 EECW pumps.

In a letter from S. Black to O. D. Kingsley, Jr. dated May 19, 1989, relief was provided to BFN for changing vibration requirements from the displacement vibration amplitude to a velocity vibration amplitude method. The "D1" pump has two dedicated modes. The "D1" pump can be used as a residual heat removal service water (RHRSW) pump or as an EECW pump. Since the valve alignment is different for these modes, the "D1" pump has two separate Surveillance Instructions (SIs) performed on this pump before declaring it operable by the BFN inservice testing program.



The "D1" pump has an establish velocity vibration amplitude baseline for the RHRSW mode. In the EECW mode, the new baseline had not been established. The mechanical test technician provided the wrong baseline status for the tested mode. Therefore, only the velocity vibration amplitude readings were recorded in step 7.13.24.

Corrective Steps Which Have Been Taken and Results Achieved

The completed SI was reviewed and the deficiency was noted during a technical review on July 20, 1989. At this time, the pump was declared inoperable. The cognizant engineer requested that the SI be repeated since no credit was taken for American Society of Mechanical Engineers Section XI performance as the required displacement vibration reading was not taken. The retest confirmed that the "D1" EECW pump did meet the displacement vibration amplitude acceptance criteria and was declared operable on July 20, 1989.

This violation is the result of personnel error. The situation has been discussed with the operator who incorrectly initialed the noted step and he was counseled with regard to signing off acceptance criteria with data missing.

Corrective Steps Which Will Be Taken to Avoid Further Violations (or Findings)

No further corrective actions are required.

Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

2. A complete analysis of the SI data was not performed within four working days of the test as required by step 3.7. Test data review was not completed until six days following the test.

Admission or Denial of the Alleged Violation

TVA denies this example.

Reasons for the Denial of This Example

Step 3.7 of 3-SI-4.5.C.1(2) does require pump parameters to be reviewed after each test to verify that the acceptance criteria is met. Additionally, step 3.7 requires a complete analysis of the test data must be performed by Mechanical Test Section within four working days of the test. The initial SI was performed on July 14, 1989, and the complete analysis was performed on July 20, 1989.



Although six calendar days had passed between the time the test was completed and the analysis was performed, only four working days had elapsed. July 14, 1989 was on a Friday, while July 20, 1989 was the following Thursday. During this timeframe, July 15 and 16 should not have been counted as work days since the normal work week for the Mechanical Section is Monday through Friday. Therefore, personnel in this section are not normally assigned to work on Saturday or Sunday. These days should have not been counted against the four working day criteria.

Corrective Steps Which Have Been Taken and Results Achieved

No further corrective actions are required.

Corrective Steps Which Will Be Taken to Avoid Further Violations (or Findings)

No further corrective actions are required.

Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

Violation B

TS 3.11.G.1.a requires that compensatory measures be established within one hour when fire rated assemblies are rendered inoperable.

Fire Protection Plan procedure FPP-2, Revision 3, Fire Protection-Attachments, implements in part TS 3.11.G.1.a and requires the preparation and processing of Attachment F, Fire Protection Equipment and Barrier Penetration Removal From Service Permit prior to impairment of the fire-rated assembly.

Contrary to the above, on August 8, 1989, the NRC inspector, while on tour, identified two fire rated doors, numbers 607 and 455 wedged open. Neither door had an Attachment F in effect and the Shift Operations Supervisor (SOS) was not aware of the condition. Neither door had compensatory measures in effect.

Admission or Denial of the Alleged Violation

TVA admits the violation.



Reason For the Violation (or Findings) if Admitted

Both doors were breached as noted by the NRC inspector without the issuance of Fire FPP-2, Revision 3, Attachment F. Step 5.4 requires a fire protection and barrier penetration removal from service permit. Step 5.3 requires the SOS to approve the removal of a fire door from service. Additionally, step 5.6 requires compensatory measures to be made for alterations to the plant fire protection systems. Each door incident is depicted below:

Door 455

At approximately 4:30 p.m. on August 6, 1989, a roving Fire Watch had begun an hourly tour through his assigned area. He noted that door 455 was closed. At 5:00 p.m. the NRC inspector found the same door without a door knob and with a wedge holding it open. The individual who opened this door was not observed and their identify is unknown. At that time, the door knob was most likely broken and the door was left open without notifying the SOS, obtaining an Attachment F, or employing any compensatory measures.

Door 607

Door 607 was breached without proper documentation because of failure to follow procedures. The foreman was knowledgeable of the Administrative Control process for removing fire protection systems from service. He intended to have the electricians set up the welding unit and run the leads to the door, without breaching the door. However, the door was breached before his return with an approved permit. Because of the foreman's failure to adequately communicate work instructions and the electricians failure to follow site Fire Protection procedures, the door was breached without an approved permit. Breaching fire doors are covered in General Employee Training (GET) which is required training/retraining for all site employees.

Corrective Steps Which Have Been Taken and Results Achieved

Door 455

After the NRC inspector notified the SOS, the SOS contacted the Fire Protection Emergency Service Technician (EST) foreman requesting assistance from Fire Protection in investigating/resolving the problem(s) with this door. Two ESTs were dispatched to investigate/resolve the problem(s). Upon their arrival, the ESTs found door 455 breached with the knob removed. A brief search was conducted for the knob, and the knob was found on top of a nearby emergency light cabinet. The SOS arrived within a few minutes and assisted the ESTs in the replacement of the knob. The wedge was then removed, allowing the door to close and latch. The SOS and ESTs functionally verified that the door was operating properly.



Door 607

A roving fire watch noted that door 607 was breached by welding leads and directed the electricians to place the door in a safe position. This notification served to satisfy FPP-2, step 6.4.13 which allows the fire watch to place the door in a safe position without notifying the shift operations supervisor. Within three minutes the electricians had removed the welding leads and secured the door.

At approximately 1730 hours the Modification's foreman initiated Attachment F 89-0626 to support work activities. Attachment F 89-0626 was issued in compliance with the position that Fire Protection maintains door 607 as a fire rated assembly. Fire Protection's administrative control program requires an hourly roving fire watch when door 607 is removed from service. The SOS log indicates that Attachment F 89-0626 on door 607 was approved at 1800 hours.

Modifications took appropriate corrective action with the craft personnel involved in the unauthorized breach of door 607. Modifications reviewed the incident investigation on this event (Root Cause Analysis (RCA) 89-64) during weekly safety meetings.

Corrective Steps Which Will Be Taken to Avoid Further Violations (or Findings)

Maintenance Support (fire watches) will review their responsibilities pertaining to identification and proper reporting of problems encountered during roving fire watch tours by October 15, 1989.

Fire Protection will review the past maintenance history of all technical specifications doors in relationship to recurring hardware problems and developed a corrective action program by October 15, 1989.

Fire Protection will review RCA 89-64 during weekly safety meetings by October 15, 1989.

Maintenance Support (fire watches) will review RCA 89-64 during weekly safety meetings by October 15, 1989.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by November 15, 1989.



ENCLOSURE 2

RESPONSE  
NRC INSPECTION REPORT  
NOS. 50-259/89-33, 50-260/89-33, AND 50-296/89-33  
LETTER FROM B. A. WILSON TO O. D. KINGSLEY, JR.  
DATED AUGUST 24, 1989

1. Maintenance Support (fire watches) will review their responsibilities pertaining to identification and proper reporting of problems encountered during roving fire watch tours by October 15, 1989.
2. Fire Protection will review the past maintenance history of all technical specifications doors in relationship to re-occurring hardware problems and developed a corrective action program by October 15, 1989.
3. Fire Protection will review Root Cause Analysis 89-64 during weekly safety meetings by October 15, 1989.
4. Maintenance Support (fire watches) will review Root Cause Analysis 89-64 during weekly safety meetings by October 15, 1989.

