

CATEGORY 1

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ACCESSION NBR: 9609180216 DOC. DATE: 96/09/13 NOTARIZED: NO DOCKET #
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 50-296 Browns Ferry Nuclear Power Station, Unit 3, Tennessee 05000296

AUTH. NAME AUTHOR AFFILIATION
 MACHON, R.D. Tennessee Valley Authority
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Responds to NRC 960815 ltr re violations noted in insp repts
 50-259/96-06, 50-260/96-06 & 50-296/96-06. Corrective actions:
 safety assessment associated w/DCN T38901A & Unit 2 SI,
 2-SI-4.4.A.1 have been revised.

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Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

R. D. (Rick) Machon
Vice President, Browns Ferry Nuclear Plant

September 13, 1996

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

10 CFR 2.201

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

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

BROWNS FERRY NUCLEAR PLANT (BFN) - NRC INSPECTION REPORT 50-259, 50-260, 50-296/96-06 - REPLY TO NOTICE OF VIOLATION

This letter provides our reply to the subject NOV transmitted by letter from Mark S. Lesser, NRC to Oliver D. Kingsley, TVA, dated August 15, 1996. The NOV involved two violations: Violation A involved three examples of failure to implement written procedures; Violation B involved a proposed change to the facility without completing the required safety evaluation. TVA admits the violations.

Enclosures 1 and 2 provide our reply to the violations. Enclosure 3 provides a list of the commitments in this reply. If You have any questions regarding this reply, please contact Tim Abney at (205) 729-2636.

Sincerely,

R. D. Machon

Enclosures
cc: See page 2

JEC/11

9609180216 960913
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G PDR



U.S. Nuclear Regulatory Commission

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September 13, 1996

Enclosures

cc (Enclosures):

Mr. Mark S. Lesser, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

NRC Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611

Mr. J. F. Williams, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852



ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 2 AND 3

REPLY TO NOTICE OF VIOLATION (NOV)
VIOLATION A

INSPECTION REPORT NUMBER
50-259, 260, 296/96-06

RESTATEMENT OF THE VIOLATION

"Technical Specifications 6.8.1.1.c requires written procedures to be established, implemented, and maintained covering surveillance and test activities of safety related equipment. Technical Specification 6.8.1.1.j requires written procedures to be established, implemented and maintained covering administrative procedures which control technical review.

Contrary to the above, written procedures were not implemented in the following instances:

- A safety evaluation was not performed for proposed Design Change Modification T38901A, Replacement of Core Shroud Access Hole Cover Plates as required by Site Specific Procedure 12.13, 10CFR50.59 Evaluations of Changes, Tests, and Experiments (Revision 9).
- On June 10, 1996, during the performance of 3-SI-4.4.1.A, Standby Liquid Control Pump Functional Test, (Revision 5), several steps were performed out of sequence and incorrectly.
- On July 17, 1996, during the performance of 0-SI-4.7.B.4, Standby Gas Treatment System In-place Leak Test of High Efficiency Particulate Air Filter Banks, (Revision 7), the detector was initialized using instructions other than those provided by the procedure.

This is a Severity Level IV violation (Supplement I)."



TVA's Reply to the Violation

Example 1

1. Reason For The Violation

This example was the result of personnel error. Self checking was not applied by the individual involved in Design Change Notice (DCN) T38901A. Specifically, the individual that authored the DCN failed to recognize that implementation of the DCN would constitute a change to the facility described in the Updated Final Safety Analysis Report (UFSAR). Consequently, a Safety Evaluation (SE) as required by Site Standard Practice-12.13, (SSP) "10 CFR 50.59 Evaluations Of Changes, Tests, And Experiments" was not performed.

The FSAR describes potential leakage pathways from within the floodable inner volume of the reactor vessel during the Loss of Coolant Accident (LOCA) and subsequent Low Pressure Coolant Injection. Implementation of the DCN will add a source of leakage within the floodable inner volume of the reactor vessel during normal operation and a postulated LOCA. Therefore, the proposed design change should have been evaluated in accordance with 10 CFR 50.59 and a subsequent change to the FSAR issued. The DCN described in the NOV has not been implemented.

2. Corrective Actions Taken And Results Achieved

The Safety Assessment (SA) associated with DCN T38901A was revised. This revision included an evaluation of the design change in accordance with 10 CFR 50.59, as well as a proposed change to the FSAR.

The DCN involved in the example was prepared by General Electric (GE), a contractor for TVA. The individual involved in the DCN and Safety Assessment received disciplinary action in accordance with GE policy. Design changes prepared by GE in the previous two years were reviewed for SA/SE adequacy. No other examples were identified during this review.

BFN reviewed a sample of DCNs that had been prepared by TVA personnel to ascertain if the need for an SE was appropriately determined. The sample population was chosen as 134 DCNs that had been issued and not



completely implemented. Forty DCNS were randomly chosen for review. After excluding those which already contained an SE, approximately 20 percent, 26 of the DCNs were evaluated. For those reviewed, the determination that a SE was not required was found to be correct.

3. Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations

The corrective actions above are considered adequate for preventing recurrence of this example.

4. Date When Compliance Will Be Achieved

TVA is in full compliance.

Example 2

1. Reason For The Violation

This example resulted from personnel error. Specifically, a failure to perform steps in surveillance Instruction (SI), Standby Liquid Control (SLC) Pump Functional Test, 3-SI-4.4.A.1 in sequential order or as written. Site Standard Practice-2.1, "Site Procedures Program," states, each procedure step is performed as written and in the exact sequence specified. Operations personnel responsible for the performance of the SI, performed section 7.6, flushing of the SLC pump suction lines, prior performance of section 7.4, Accumulator Pressure Check and Charging. Maintenance personnel were delayed in their support of the test; consequently, operations performed a portion of the test not requiring their support, section 7.6, prior to section 7.4.

Also, Revision 5 of the SI required that two Measurement and Test Equipment (M&TE) gauge and valve assemblies be utilized during the test. The SI allows personnel to establish test conditions for the pump discharge tests on both divisions A and B pumps at the same time. This portion of the test is performed on only one division at a time and only requires one gauge and valve assembly. Therefore, the maintenance personnel only obtained one M&TE gauge and valve assembly for the test.



2. Corrective Actions Taken And Results Achieved

To prevent recurrence of this example, personnel involved in the performance of the SI were counseled on the need to follow procedures as written. Surveillance Instruction 3-SI-4.4.A.1 was revised to require the use of only one gauge and valve assembly. A note has been added to Section 7.6 that allows the SLC pump suction line flushing portion of the test to be performed anytime prior to the pump functional test.

3. Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations

Unit 2 SI, 2-SI-4.4.A.1, has also been revised to require the use of only one gauge and valve assembly and a note was added which allows the SLC pump suction line flushing portion of the test to be performed anytime prior to the pump functional test.

A case study of the issues surrounding this example was performed. The results of the study will be presented to appropriate operations personnel during requalification training. TVA expects to complete the above actions by November 1, 1996.¹

4. Date When Compliance Will Be Achieved

TVA is in full compliance.

Example 3

1. Reason For The Violation

This example was a result of failure to follow procedures. Specifically, personnel performing the SI, "Standby Gas Treatment System In-Place Leak Test Of High-Efficiency Particulate Air (HEPA) Filter Banks," attempted to configure test equipment utilizing instructions other than those specified by the SI.

Site Standard Practice-2.1, "Site Procedures Program," states, each procedure step is performed as written. Additionally, if a problem with a procedure is

¹These actions are considered enhancements and are not commitments.



encountered, employees are charged with the responsibility to stop work and have a procedure revised prior to continuing. Step 7.9 in O-SI-4.7.B.4 states; perform standard DOP test on the Upstream High-Efficiency Particulate (HEPA) filter in accordance with Attachment 2. Attachment 2 "Standard DOP Equipment Setup And Operation," establishes test conditions for the use of a Dioctyphthalate (DOP) detector, model TDA-2EN/TDA-2DN. However, the test equipment being utilized by personnel was a digital DOP detector, model TDA-2G. The instructions for establishing test equipment configuration for this detector are different from the DOP detector specified in the SI.

The surveillance involved gave detailed instructions for the use of the model TDA-2EN/TDA-2DN DOP detector. Also, procedure steps contained signoffs that require the use of Attachment 2; therefore, these steps could not be completed because the data sheets in the attachment did not address the digital DOP detector.

2. Corrective Actions Taken And Results Achieved

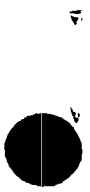
When NRC questioned the actions of the individuals involved in the test, the individuals terminated the activity. Subsequently, the SI was revised to allow the use of the model digital DOP detector and successfully completed.

3. Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations

The SI, "Standby Gas Treatment System In-Place Leak Test Of High-Efficiency Particulate Air (HEPA) Filter Banks," was revised to include procedural steps for configuring either model DOP detector.

Personnel corrective actions in accordance with TVA policy will be administered to the individuals involved by October 11, 1996.

The appropriate maintenance personnel will be briefed on the issues surrounding this example by October 11, 1996.



4. Date When Compliance Will Be Achieved

TVA is in full compliance with the circumstances described in this example. TVA expects to complete the actions being taken to prevent recurrence by October 11, 1996.



ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 2

REPLY TO NOTICE OF VIOLATION (NOV)
VIOLATION B

INSPECTION REPORT NUMBER
50-259, 260, 296/96-06

RESTATEMENT OF THE VIOLATION

"10 CFR 50.59 (b) (1) requires the licensee to maintain records of changes in the facility made pursuant to that section to the extent that these changes constitute changes in the facility as described in the safety analysis report. These records must include written safety evaluations which provide the bases for the determination that the change does not involve an unreviewed safety question.

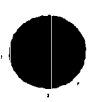
Contrary to the above, a change was made to the facility as described in the Final Safety Analysis Report without the completion of a safety evaluation. Final Safety Analysis Report, Section 7.8, 'Reactor Vessel Instrumentation,' describes the functioning of a reactor vessel flange leakage alarm. On April 24 and April 30, 1996, the referenced alarm was disabled in the Unit 2 control room without a required safety evaluation.

This is a Severity Level IV violation (Supplement I), applicable to Unit 2 only."

TVA's REPLY TO THE VIOLATION

1. Reason For The Violation

This violation resulted from personnel error during disposition of a nuisance alarm. Specifically, utilizing guidance provided by Operations Instruction, "Annunciator System," (O-OI-55), a Disabling Annunciator Input Form (Attachment-6) was generated and the Unit 2 Reactor Vessel Head Seal Leak Off Pressure High, 2-PA-3-190 was disabled. The attachment incorrectly indicated that the annunciator was not required by the Updated Final Safety Analysis Report (UFSAR). The author of the attachment failed to recognize the instrumentation and



alarm is described in the UFSAR. Therefore, disabling the alarm constituted a change to the facility described in the UFSAR and a Safety Assessment (SA) should have been issued.

2. Corrective Actions Taken And Results Achieved

To prevent recurrence of this violation, the personnel involved in the disposition of the nuisance alarm were counseled on management expectations for strict compliance with the FSAR and procedures.

To assess the extent of the condition, TVA performed a review of the Unit 2 and Unit 3 disabled alarms to determine if a SA was required. Two alarms were identified needing an SA. An SA was generated for the two identified alarm.

3. Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations

TVA will revise 0-OI-55 to include a Safety Assessment that address the disabling of each FSAR-referenced alarms. Additionally, the revision will include a listing of proper compensatory measures to be taken for each disabled alarm.¹ Operations management will provide the appropriate personnel with a briefing on strict compliance with the FSAR and procedures. TVA expects to have these steps completed by December 15, 1996.

4. Date When Full Compliance Will Be Achieved

TVA expects to complete the action taken to prevent recurrence by December 15, 1996.

¹These actions are considered enhancements and are not commitments.



ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 2 AND 3

LIST OF COMMITMENTS

INSPECTION REPORT NUMBER
50-260, 296/96-06

1. Personnel corrective actions with the personnel involved will be administered in accordance with TVA policy by October 11, 1996.
2. The appropriate maintenance personnel will be briefed on the issues surrounding this example by October 11, 1996.
3. Operations management will provide the appropriate personnel with a briefing on strict compliance with the FSAR and procedures by December 15, 1996.

