



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

January 23, 2012

EA-11-018
EA-11-252

Mr. Joseph Shea
Manager, Corporate Nuclear Licensing
Tennessee Valley Authority
4B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

**SUBJECT: BROWNS FERRY NUCLEAR PLANT – NOTICE OF VIOLATION
NRC INSPECTION REPORT 05000259/2012010, 05000260/2012010, AND
05000296/2012010**

Dear Mr. Shea:

This refers to the supplemental inspection IR No. 05000259, 260, 296/2011-011, completed on September 23, 2011, at Tennessee Valley Authority's (TVA) Browns Ferry Nuclear Plant (BFN). The inspection was performed pursuant to NRC Inspection Procedure 95003, "Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Yellow Inputs or One Red Input," Unit 1, because one finding of high safety significance (RED) was identified which placed Browns Ferry Unit 1 in the Multiple/Repetitive Degraded Cornerstone Column in the fourth quarter of 2010. The issue, which degraded the Mitigating Systems Cornerstone, was a Red finding for the Residual Heat Removal (RHR) Subsystem being inoperable for greater than the Technical Specification allowed outage time due to a significantly degraded Unit 1 low pressure coolant injection (LPCI) outboard injection valve, 1-FCV-74-66. The results of the inspection, including the identification of an apparent violation of 10 CFR 50.9, "Completeness and Accuracy of Information", for Units 1, 2, and 3, were discussed with members of the BFN staff on November 3, 2011, and transmitted to the Tennessee Valley Authority (TVA) on November 17, 2011 (ML113210602).

In the letter transmitting the inspection report, we provided TVA with the opportunity to address the apparent violation identified in the report by either attending a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated December 19, 2011, you provided a response to the apparent violation, which included the reason for the violation, corrective steps that have been taken and the results achieved, corrective steps to avoid future violations, and the date when full compliance was achieved.

Based on the information developed during the inspection and the information that you provided in your written response of December 19, 2011, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. Specifically, by letter dated January 6, 1997, TVA provided its response to a prior NRC request for reevaluation of the safety functions of certain Motor Operated Valves (MOVs) to be included in the BFN Unit 2 and 3 Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance" testing program. TVA's letter of January 6, 1997, addressed whether valves FCV-74-52 and FCV-74-66 had a redundant safety function to close to allow operation of the suppression pool cooling mode of the RHR System, and stated that "Closure of valves FCV-74-52 and FCV-74-66 is not required by plant procedures to operate the RHR system in the suppression pool cooling mode. Therefore, these valves have no 'redundant' safety function and will not be included in the GL-89-10 program." The NRC concluded that this information was inaccurate because valves FCV-74-52 and FCV-74-66 do have a safety function to close to operate the RHR system in the suppression pool cooling mode, as described in Emergency Operating Instruction (EOI) Appendix-17A, RHR SYSTEM OPERATION SUPPRESSION POOL COOLING.

Additionally, TVA's letter of May 5, 2004 provided its updated response to NRC GL 89-10 for BFN Unit 1. TVA's updated response referenced 18 valves, including valves FCV-74-52 and FCV-74-66, "that are not in the GL 89-10 program, since the valves are normally in their safety position." TVA's May 5, 2004 letter also referenced its previous January 6, 1997 letter regarding similar valves on Units 2 and 3 (including FCV-74-52 and FCV-74-66) that were not in the GL 89-10 program, since the valves are normally in their safety position. The NRC concluded that the information provided in TVA's May 5, 2004 letter was incomplete in that it did not discuss or acknowledge that Unit 1 valves FCV-74-52 and FCV-74-66 in fact have a redundant safety function to close to allow operation of the suppression pool cooling mode of the RHR System, as described in EOI Appendix-17A.

No actual consequences occurred as a result of the inaccurate information, because the subject valves, although inoperable for a period of time, were not required to function in response to an actual plant emergency. However, the inaccurate information had a significant impact on the NRC's regulatory process. In this case, the information was material to the NRC because it was used, in part, as the basis for determining that valves FCV-74-52 and FCV-74-66 for Units 1, 2, and 3 did not meet the conditions necessary to require incorporation into BFN's GL 89-10 MOV monitoring program. The NRC subsequently concluded that had these valves been included in the licensee's GL 89-10 MOV monitoring program, identification of the previously failed Unit 1 valve FCV-74-66 may have occurred earlier through the comprehensive testing that would have been implemented under the program. Therefore, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III.

Because your facility has been the subject of escalated enforcement actions within the last two years¹, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the

¹ On December 22, 2009, the NRC issued a Confirmatory Order Modifying License (Effective Immediately) to TVA (EA-09-009, EA-09-203).

Enforcement Policy. The NRC identified the inaccurate information as a part of our follow-up inspection of the LPCI valve failure. As such, credit is not warranted for the factor of Identification.

Regarding corrective actions, TVA implemented a number of activities as discussed in its letter of December 19, 2011, including: (1) the submittal of written notification to the NRC as required by 10 CFR 50.9(b), by letters dated October 20, 2011, and December 19, 2011, acknowledging the inaccuracy in its January 6, 1997 letter and its May 5, 2004 letter; (2) procedural enhancements to TVA Procedure BP-213, "Managing TVA's Interface with NRC," and (3) reinforcement of procedural use and adherence with respect to the failure of BFN Unit 1 restart licensing personnel; (4) inclusion of subject LPCI valves within its GL 89-10 program and the development or revision of an existing procedure to provide the criteria for determining GL 89-10 program scope, including active/passive classification.

The NRC notes that TVA's written response of December 19, 2011, did not provide any information regarding an extent of condition review for other GL 89-10 submittals, other BFN Unit 1 restart submittals, or any other TVA submittals to the NRC. An extent of condition review is important and necessary to the NRC as it would provide the NRC with sufficient confidence that the regulatory process and our regulatory oversight responsibilities were not substantively impeded in other areas of TVA/NRC interaction. Therefore, the NRC has concluded, based on the absence of an extent of condition review detailed in TVA's December 19, 2011 letter, that credit for corrective action is not warranted.

Normally, the NRC would propose that a civil penalty in the amount of two times the base, for a total of \$130,000 based on the Enforcement Policy in effect at the time be assessed because credit is not warranted for the factors of Identification and Corrective Action. However, the NRC notes that the provisions of Title 28 to United States Code, Section 2462, "Time for commencing proceedings," are applicable to the circumstances of this enforcement matter. Section 2462 to Title 28 states that except as otherwise provided by Act of Congress, an action, suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued if, within the same period, the offender or the property is found within the United States in order that proper service may be made thereon. In this case, the violation of 10 CFR 50.9 occurred in 2004 for BFN Unit 1, and 1997 for BFN Units 2 and 3, which is a period of time greater than five years from the date of the enclosed Notice. Therefore, in consideration of the above, and in consultation with the Director, Office of Enforcement, a civil penalty will not be assessed in this case.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In addition, we are requesting that your response specifically address an extent of condition review for other GL 89-10 submittals, other BFN Unit 1 restart submittals, and any other associated TVA submittals to the NRC related to Unit 2 and Unit 3. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

For administrative purposes, Apparent Violation 05000259, 260, 296/2011011-04 is redesignated as Violation 05000259, 260, 296/2011011-04, Inaccurate Information Provided Regarding Scoping of Motor Operated Valves in the Generic Letter 89-10 Program is opened.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>).

Sincerely,

/RA/

Victor M. McCree
Regional Administrator

Docket Nos.: 50-259, 50-260, 50-296
License Nos.: DPR-33, DPR-52, DPR-68

Enclosure: Notice of Violation

cc w/encl: See next page

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Sincerely,

/RA/

Victor M. McCree
Regional Administrator

Docket Nos.: 50-259, 50-260, 50-296
License Nos.: DPR-33, DPR-52, DPR-68

Enclosure: Notice of Violation

cc w/encl: See next page

X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE

SENSITIVE X NON-SENSITIVE

ADAMS: X Yes ACCESSION NUMBER: ML12024A499

SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:ORA	RII:ORA		
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/		
NAME	CKONTZ	EGUTHRIE	RCROTEAU	CEVANS	LWERT		
DATE	1/10/12	1/10/12	1/10/12	1/10/12	1/18/12		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
OFFICE	OE	NRR					
SIGNATURE	/RA By e-mail/	/RA By e-mail/					
NAME	LCasey	MAskley					
DATE	1/12/12	1/12/12					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME:

TVA

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cc w/encl:
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NOTICE OF VIOLATION

Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2 and 3

Docket Nos. 50-259, 50-260, 50-296
License Nos. DPR-33, DPR-52, DPR-68
EA-11-252

During an NRC inspection completed on September 23, 2011, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 50.9 requires, in part, that information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.

Contrary to the above, on January 6, 1997, and May 5, 2004, TVA provided information to the Commission that was not complete and accurate in all material respects, related to its NRC Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance" testing program. Specifically, in a letter dated January 6, 1997, TVA responded to a prior NRC question, and stated that "Closure of valves FCV-74-52 and FCV-74-66 is not required by plant procedures to operate the RHR system in the suppression pool cooling mode. Therefore, these valves have no 'redundant' safety function and will not be included in the GL 89-10 program." This information was inaccurate because the FCV-74-52 and FCV-74-66 valves do have a safety function to shut to operate the RHR system in the suppression pool cooling mode as described in EOI Appendix-17A, "RHR System Operation Suppression Pool Cooling," and should therefore have been included in Browns Ferry's GL 89-10 MOV monitoring program.

Additionally, TVA also provided incomplete and inaccurate information in a letter to the NRC dated May 5, 2004. This letter referenced 18 valves, including valves FCV-74-52 and FCV-74-66, "that are not in the GL 89-10 program, since the valves are normally in their safety position." This letter stated that "TVA's review and documentation of the design basis for the operation of each Unit 1 MOV within the scope of the GL 89-10 program, the methods for determining and adjusting its switch settings, testing, surveillance, and maintenance are the same as with the Units 2 and 3 program."

This information was material to the NRC because it was used, in part, as the basis for determining that valves FCV-74-52 and FCV-74-66 did not meet the conditions necessary that would require them to be in Browns Ferry's GL 89-10 MOV monitoring program.

This is a Severity Level III violation (Enforcement Policy Section 6.9).

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region II, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation

(Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-11-252" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 23rd day of January 2012