



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

November 28, 2016

EA-16-064

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
1101 Market Street, LP 3D-C  
Chattanooga, TN 37402-2801

**SUBJECT: BROWNS FERRY NUCLEAR PLANT - NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTY - \$140,000, NRC INSPECTION  
REPORT 05000296/2016015 AND INVESTIGATION REPORT NO. 2-2015-037**

Dear Mr. Shea:

This letter refers to an investigation completed on March 11, 2016, by the Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) concerning activities at the Tennessee Valley Authority's (TVA) Browns Ferry Nuclear Plant (BFN). The purpose of the investigation was to determine whether Day and Zimmerman (DZ) contract fire watch employees deliberately failed to conduct roving fire watches at BFN Units 1, 2, and 3. The details of the investigation are documented in NRC Inspection Report 05000296/2016013, issued on July 27, 2016. The report identified an apparent violation of 10 CFR 50.48, Fire Protection, which was considered for escalated enforcement.

On September 27, 2016, a predecisional enforcement conference was conducted, at your request, in the NRC's Region II office with members of your staff to discuss the apparent violation of 10 CFR 50.48. At the conference you accepted the violation as described in the inspection report, including the willful aspects, and provided details of the significance, the root causes, and your corrective actions. The conference was closed to public observation because we discussed the findings of an OI report that has not been publically released. A summary of the predecisional enforcement conference, including your presentation material, is documented in the NRC's letter to you, dated October 5, 2016.

Based on the information developed during the investigation and the information that you provided during the conference, the NRC has determined that a violation of NRC requirements occurred. A violation of 10 CFR 50.48 is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding this violation are described in detail in inspection report 05000296/2016013. To summarize, five contract fire watch employees deliberately failed to conduct compensatory roving fire watch patrols as required by NPG-SPP-18.4.6, Control of Fire Protection Impairments, Revision 0006, on multiple occasions in May 2015. These roving fire watch patrols were required as a compensatory measure for fire protection equipment that was out of service at the time.

Based on the NRC's review, the violation did not result in any actual consequences. In this case, an actual fire did not occur in the fire zones in question during the time frame the fire watches were missed.

The potential consequences of multiple missed fire watches, by numerous contract personnel, is a concern to the NRC. Fire watches are conducted as a compensatory measure for fire protection equipment or features that are out of service, and among other purposes, serve to identify unapproved fire loadings or undesirable plant conditions, and may provide early detection or mitigation of a fire. Although the NRC recognizes that other fire protection plan features serve as defense in depth to provide early detection or mitigation of fires, routine fire watches are an important part of the overall fire protection plan strategy to reduce the risk and consequences of a fire at the facility.

In addition to the importance of fire watches, of greater concern to the NRC is the fact that multiple contract personnel engaged in deliberate misconduct such that fire watches were not performed as required. Furthermore, in this case, TVA management failed to provide necessary management oversight of these contractor personnel, and failed to instill a culture of commitment to procedural compliance. As discussed in the NRC Enforcement Policy, willful violations are of particular concern because the NRC's regulatory program is based on licensees and their contractors, employees, and agents acting with integrity and communicating with candor. In light of the above, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level (SL) III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$140,000 is considered for a SL III violation. Because your facility has not been the subject of escalated enforcement actions within the last 2 years and because the violation was willful, 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 Enforcement Policy.

The issue involving missed fire watches during the May 2015 timeframe was brought to the attention of NRC staff prior to TVA's knowledge and involvement, and as such, credit is not warranted for the factor of *Identification*. At the predecisional enforcement conference you identified a number of actions, including but not limited to: (1) permanent removal of involved fire watch individuals from all work activities, (2) provided briefing to all fire watch personnel communicating the fire watch procedural requirements and expectations, (3) procedure revision requiring fire operations personnel to perform weekly, unannounced, random observations of fire watch personnel, and (4) random quarterly verification of security card reader information by operations and fire operations management to ensure that fire watch personnel spend the appropriate time in required areas. Based on the above, credit is warranted for the factor of *Corrective Action*.

Therefore, to emphasize the importance of prompt identification of violations, the importance of TVA's oversight of its fire protection plan implementation, and in recognition of the willful aspects, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of \$140,000 for the SL III violation.

Additionally, the inspection report identified an apparent violation of 10 CFR 50.9, Completeness and Accuracy of Information, which was not considered for escalated enforcement and will be dispositioned in quarterly integrated inspection report 05000259,260,296/2016004.

If you disagree with this enforcement sanction, you may deny the violation, as described in the Notice, or you may request alternative dispute resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a neutral third party. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's ADR program can be found at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>.

The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. If you are interested in pursuing this issue through the ADR program, please contact: (1) the ICR at (877) 733-9415; and (2) Alan Blamey at (404) 997-4415 within 10 days of the date of this letter. You may also contact both ICR and Alan Blamey for additional information. Your submitted signed agreement to mediate using the NRC ADR program will stay the 30-day time period for payment of the civil penalties and the required written response, as identified in the enclosed notice, until the ADR process is completed.

The NRC has concluded that information regarding: (1) the reason for the violation, or if contested, the basis for disputing the violation; (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 was achieved was adequately addressed at the predecisional enforcement conference, as documented in the NRC's letter to you, dated October 5, 2016. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

For administrative purposes, this letter is issued as NRC Inspection Report 05000296/2016015. Apparent Violation (AV) 05000296/2016013-01, "Failure to Implement Proper Control of Fire Protection Impairments," has been re-designated as Violation 05000296/2016013-01, "Failure to Implement Proper Control of Fire Protection Impairments."

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure(s), and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room and from the NRC's Agencywide Documents Access and Management 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. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>.

If you have any questions concerning this matter, please contact Alan Blamey of my staff at (404) 997-4415.

Sincerely,

**/RA/**

Catherine Haney  
Regional Administrator

Docket No. 50-296  
License No. DPR-68

Enclosure: Notice of Violation and Proposed  
Imposition of Civil Penalty  
NUREG/BR-0254 Payment Methods

cc: Distribution via Listserv

If you have any questions concerning this matter, please contact Alan Blamey of my staff at (404) 997-4415.

Sincerely,

/RA/

Catherine Haney  
Regional Administrator

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☒ PUBLICLY AVAILABLE      ☐ NON-PUBLICLY AVAILABLE      ☐ SENSITIVE      ☒ NON-SENSITIVE

ADAMS: ☒ Yes      ACCESSION NUMBER: ML16333A437      ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	DRP	DRP	DRP	EICS	ORA	ORA	ORA
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NAME	J. Seat	A. Blamey	J. Munday	M. Kowal	S. Price	L. Wert	C. Haney
DATE	10/27/2016	10/27/2016	10/27/2016	10/31/2016	11/2/2016	11/28/2016	11/2/2016
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
OFFICE	OE	NRR	OGC				
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NAME	G. Figueroa	L. Casey	M. Ring				
DATE	11/8/2016	11/8/2016	11/7/2016				
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY      DOCUMENT NAME: G:\DRPI\RPB6BROWNS FERRY\REPORTS\2016\015EA-16-064 BFN  
FIRE WATCH NOV R1 (CRK).DOCX

Memorandum to Joseph W. Shea from Catherine Haney dated November 28, 2016

SUBJECT: BROWNS FERRY NUCLEAR PLANT - NOTICE OF VIOLATION AND PROPOSED  
IMPOSITION OF CIVIL PENALTY - \$140,000, NRC INSPECTION REPORT  
05000296/2016015 AND INVESTIGATION REPORT NO. 2-2015-037

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NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Tennessee Valley Authority  
Browns Ferry Nuclear Plant

Docket No. 50-296  
License No. DPR-68  
EA-16-064

During an NRC investigation completed on March 11, 2016, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

- A. 10 CFR § 50.48, "Fire Protection," requires that a licensee must have a fire protection plan that, in part, outlines the plans for fire protection, fire detection, suppression capability, and limitation of fire damage. The Browns Ferry Fire Protection Report lists compensatory actions that must be implemented when there are impaired fire protection systems, including under some circumstances, hourly fire watches. Technical Specification 5.4.1.d requires, in part, that written procedures shall be established, implemented, and maintained covering the activities involved with the fire protection program. TVA Corporate Procedure NPG-SPP-18.4.6, "Control of Fire Protection Impairments," Rev. 0006, Section 3.2.6.A, states that fire watches are utilized for the surveillance of areas where fire protection systems are impaired. Fire Protection Impairment Permit 12-3612, dated July 23, 2012, established an hourly fire watch for several plant areas, including the Unit 3 Diesel Building and Unit 3 4kV Shutdown Board Room, due to impairment of elevation 593' Control Bay Ventilation Air Handling Unit 1A Local Start Function. BFN procedure FP-0-000-INS012, "Fire Watch Expectations," requires fire watch employees to enter and traverse into a room or area to its farthest point to observe conditions that would indicate a fire.

Contrary to the above, on multiple occasions in May 2015, five contract employees assigned to conduct roving fire watch patrols in the Unit 3 Diesel Building and Unit 3 4kV Shutdown Board Room due to Fire Protection Impairment Permit 12-3612, failed to conduct hourly fire watch patrols as required by NPG-SPP-18.4.6. Specifically, contract employees either failed to enter the Unit 3 4kV Shutdown Board Room, or failed to traverse the room to its farthest point, as required by procedure FP-0-000-INS012, "Fire Watch Expectations."

This is a Severity Level III Violation (NRC Enforcement Policy Section 6.1).

Civil Penalty - \$140,000. (EA-16-064)

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance was achieved was adequately addressed at the September 27, 2016, predecisional enforcement conference, as documented in the NRC's letter to you, dated October 5, 2016. However, if the description therein does not accurately reflect your position or your corrective actions, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 within 30 days of the date of the letter transmitting this Notice of Violation. In that case, or if you choose to respond, clearly mark your response as a Reply to a Notice of Violation, and send it to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S.,

Nuclear Regulatory Commission, Region II, the NRC Resident Inspector at the facility that is the subject of this Notice, and the Document Control Desk, Washington, DC 20555-0001.

TVA may pay the civil penalty proposed above in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. Should the TVA fail to answer within 30 days of the date of this Notice, the NRC will issue an order imposing the civil penalty. Should TVA elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice, in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the response should address the factors addressed in Section 2.3.4 of the Enforcement Policy. Any written answer addressing these factors pursuant to 10 CFR 2.205 should be set forth separately from the statement or explanation provided pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of TVA is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205 to be due, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above, i.e., Reply to Notice of Violation, Statement as to Payment of Civil Penalty, and Answer to a Notice of Violation, should be addressed to: Patricia Holahan, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, the NRC Resident Inspector at the facility that is subject to this Notice, and the Document Control Center, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or in NRC's Agencywide Documents Access and Management 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 or proprietary 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 that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (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 of receipt.

Dated this 28th day of November 2016