



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

April 13, 2007

EA-06-143

Tennessee Valley Authority  
ATTN: Mr. Preston D. Swafford  
Acting Chief Nuclear Officer and  
Executive Vice President  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: NOTICE OF VIOLATION (OFFICE OF INVESTIGATIONS REPORT NUMBER  
2-2005-006)

Dear Mr. Singer:

This letter is in reference to an investigation completed by the NRC's Office of Investigations (OI) on April 19, 2006. The purpose of the OI investigation was to determine whether a Stone and Webster Engineering Company (SWEC) foreman, employed at the Tennessee Valley Authority's (TVA) Browns Ferry Nuclear Plant, willfully allowed a prohibited activity to be performed. The activity in this case involved vacuum blasting to remove paint inside the Unit 1 torus in January and February of 2004, which resulted in another SWEC employee receiving an internal uptake of radioactive material (less than regulatory limits).

The results of the investigation, including the identification of an apparent violation involving Browns Ferry Technical Specification 5.4.1.a, together with TVA Nuclear Standard Department Procedure RCDP-3, Administration of Radiation Work Permits (RWP), Paragraph 3.6.3, Revision 2, was transmitted to you by our letter of August 3, 2006. Our letter also provided TVA an opportunity to address the apparent violation by either attending a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated October 31, 2006, TVA provided a written response to the apparent violation in lieu of requesting a pre-decisional enforcement conference.

Based on our review of the OI investigation and TVA's written response, 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 our letter of August 3, 2006. In summary, the NRC concluded that the SWEC foreman engaged in deliberate misconduct in violation of 10 CFR 50.5, by permitting unauthorized vacuum blasting to be performed on non-flat surfaces in the Unit 1 torus in January and February 2004, in violation of RWP requirements and verbal directions from TVA Radcon. Because the NRC holds its licensees accountable for the actions of its employees and contractors, the staff has concluded that TVA violated RWP requirements.

After considerable review, the Agency has concluded that, on balance, this violation should be characterized at Severity Level IV given its safety significance. This determination is based on

the fact that the Unit 1 torus was de-contaminated by TVA Radcon prior to the commencement of paint removal activities, radiological conditions were monitored by TVA during these activities, an immediate investigation of the internal uptake of radioactive material performed by TVA Radcon was inconclusive as to the source/cause of the uptake, and the amount of the internal uptake was relatively low and below TVA's administrative limits.

The NRC has concluded that this violation does not satisfy the non-cited violation criteria specified in Section VI.A of the NRC Enforcement Policy, because the violation was deliberate, TVA did not identify the violation, the violation involved the acts of a first line supervisor (i.e., a licensee official as defined in Section IV.A of the Enforcement Policy), and the violation was caused by a lack of management oversight as evidenced by a lack of supervision of employees.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact Mr. Brian Bonser, Chief, Plant Support Branch, Division of Reactor Safety at (404) 562-4653.

Sincerely,

/RA/

Joseph W. Shea, Director  
Division of Reactor Safety

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

Enclosure: Notice of Violation

Tennessee Valley Authority

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cc w/encl:

Ashok S. Bhatnagar  
Senior Vice President  
Nuclear Operations  
Tennessee Valley Authority  
Electronic Mail Distribution

Larry S. Bryant, Vice President  
Nuclear Engineering &  
Technical Services  
Tennessee Valley Authority  
Electronic Mail Distribution

Brian O'Grady  
Site Vice President  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Preston D. Swafford  
Senior Vice President  
Nuclear Support  
Tennessee Valley Authority  
Electronic Mail Distribution

General Counsel  
Tennessee Valley Authority  
Electronic Mail Distribution

John C. Fornicola, General Manager  
Nuclear Assurance  
Tennessee Valley Authority  
Electronic Mail Distribution

Robert G. Jones, Acting Plant Manager  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Robert H. Bryan, Jr., General Manager  
Licensing & Industry Affairs  
Tennessee Valley Authority  
Electronic Mail Distribution

William D. Crouch, Manager  
Licensing and Industry Affairs  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Beth A. Wetzel, Manager  
Corporate Nuclear Licensing and  
Industry Affairs  
Tennessee Valley Authority  
4X Blue Ridge  
1101 Market Street  
Chattanooga, TN 37402-2801

State Health Officer  
Alabama Dept. of Public Health  
RSA Tower - Administration  
Suite 1552  
P. O. Box 303017  
Montgomery, AL 36130-3017

Chairman  
Limestone County Commission  
310 West Washington Street  
Athens, AL 35611

Masoud Bajestani, Vice President  
Browns Ferry Unit 1 Restart  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P. O. Box 2000  
Decatur, AL 35609

Robert G. Jones, General Manager  
Browns Ferry Site Operations  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P. O. Box 2000  
Decatur, AL 35609

## NOTICE OF VIOLATION

Browns Ferry Nuclear Power Plant  
Unit 1

Docket No. 50-259  
License No. DPR-33  
EA-06-143

During an NRC Office of Investigations investigation completed on April 19, 2006, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Technical Specification 5.4.1.a. requires written procedures be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33. Appendix A, Paragraph 7.e. of Regulatory Guide 1.33 requires radiation protection procedures addressing access control to radiation areas including a radiation work permit system.

Paragraph 3.6.3 to TVAN Standard Department Procedure RCDP-3, Administration of Radiation Work Permits, Revision 2, states that an individual must receive an RWP briefing from RadCon before use [of the RWP] and that the worker must agree to comply with the RWP requirements as well as verbal instructions given by RadCon.

RWP Number (No.) 04-1021, Worker Instructions No. 13, states that RadCon permission is required prior to welding, grinding, buffing or other surface disturbing activities. Pursuant to this RWP, the verbal instructions provided by Radcon to painters and their supervision during pre-job briefings specified that, due to radiation contamination hazards, the anti-contamination clothing specified in the RWP, including dust mask covers, was appropriate during vacuum blasting. Open blasting and vacuum blasting on non-flat surfaces was expressly prohibited by Radcon.

Contrary to the above, on or about February 24, 2004, a Stone and Webster Engineering Company Lead Foreman deliberately directed or allowed vacuum blasting to be performed on non flat areas inside the Unit 1 torus in apparent violation of the requirements of RWP 04112101 and the verbal instructions provided by Radcon.

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

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, D.C. 20555 with a copy to the Regional Administrator, Region II, and a copy to the NRC Senior 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-06-143" and should include for the 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

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and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous 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 to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made publicly available, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publically available 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 basis 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 13<sup>th</sup> day of April, 2007