



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

August 3, 2006

EA-06-143

Tennessee Valley Authority  
ATTN: Mr. K. W. Singer  
Chief Nuclear Officer and  
Executive Vice President  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: U. S. NUCLEAR REGULATORY COMMISSION 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 directed a prohibited activity to be performed. The activity in this case involved vacuum blasting to remove paint on the Unit 1 torus area in January and February of 2004, which resulted in an internal radiation contamination (less than regulatory limits) to another SWEC employee.

Based on the evidence developed during the investigation, the NRC concluded that certain activities resulted in an apparent violation of Technical Specifications and plant procedures. In addition, the NRC concluded that the SWEC foreman and SWEC super lead foreman engaged in deliberate misconduct in violation of 10 CFR 50.5 that caused an NRC licensee (TVA) to be in violation of regulatory requirements. A factual summary that provides additional details of the OI investigation and the apparent violation is enclosed.

Based on these findings, this apparent violation is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's website at [www.nrc.gov/OE](http://www.nrc.gov/OE).

Before the NRC makes its enforcement decision, we are providing you an opportunity to either (1) respond to the apparent violation addressed in this letter within 30 days of the date of this letter or (2) request a pre-decisional enforcement conference (PEC). If a conference is held, it will be transcribed and closed to the public because the preliminary conclusions are based on an NRC OI investigation that has not been publicly released. Please contact Mr. Robert Haag at 404-562-4607 within seven days of the date of this letter to notify the NRC of your intended response.

Should you choose to respond, your response should be clearly marked as a "Response to An Apparent Violation - EA-06-143" and should include: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation; (2) the corrective steps that have been taken 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. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violation. Your response should be submitted under oath or affirmation and may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision.

During OI's review of this matter, SWEC contractors tasked with paint removal activities inside the torus provided testimony which suggested a hesitancy to raise concerns to SWEC and/or licensee management regarding safety activities, including activities that were prohibited by procedures. Therefore, the NRC requests that TVA review this issue as it relates to the apparent violation and provide the results of its review and any related corrective actions, as appropriate, either in TVA's written response or at a pre-decisional enforcement conference.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for the inspection and investigative findings at this time. In addition, please be advised that the number and characterization of the apparent violation described in this letter may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations in this matter.

You should also be aware that the U.S. Attorney's Office, Department of Justice (DOJ), has been apprised of the results of the OI investigation. After careful consideration of the facts of this case, the DOJ has advised that it will delay prosecutorial review until after completion of NRC enforcement activities.

In lieu of a PEC, you may also request Alternative Dispute Resolution (ADR) with the NRC in an attempt to resolve this issue. Alternative Dispute Resolution is a general term encompassing various techniques for resolving conflicts outside of court using a neutral third party. The technique that the NRC has decided to employ during a pilot program, which is now in effect, is mediation. Additional information concerning the NRC's pilot program is described in the enclosed brochure (NUREG/BR-0317) and can be obtained at <http://www.nrc.gov/what-we-do/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. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

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).

TVA

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Should you have any questions concerning this letter, please contact me at 404-562-4600 or Mr. Robert Haag at (404) 562-4607.

Sincerely,

**/RA: Harold Christensen for/**

Victor M. McCree, Director  
Division of Reactor Safety

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

Enclosures:

1. Factual Summary
2. NUREG/BR-0317

cc w/encls:

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(cc w/encls cont'd - See page 4)

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## FACTUAL SUMMARY OF OFFICE OF INVESTIGATIONS (OI) REPORT 2-2005-006

The U.S. Nuclear Regulatory Commission's (NRC), Office of Investigations (OI), Region II (RII), initiated an investigation on February 9, 2005, to determine whether a Stone and Webster Engineering (SWE) foreman employed at the Tennessee Valley Authority's (TVA) Browns Ferry Nuclear Plant (Browns Ferry) willfully directed prohibited work to be performed resulting in an internal radiation contamination of another SWE employee.

Browns Ferry Technical Specification 5.4.1.a, together with TVA Nuclear Standard Department Procedure RCDP-3, Administration of Radiation Work Permits, Paragraph 3.6.3, Revision 2, require that an individual must receive a Radiation Work Permit (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.

During the January/February 2004 time frame, SWE painters were tasked with removing paint in areas of the Unit 1 torus bays as part of Unit 1 torus modifications. The RWP pursuant to which this activity was to be performed, RWP No. 04112101, specified the anti-contamination clothing that was required to be donned for Unit 1 torus modification activities. The verbal instructions provided by Radcon to painters, their foreman and super lead foreman 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 was expressly prohibited by Radcon.

In keeping with Radcon expectations/briefings, painters were instructed to vacuum blast only the flat surfaces inside the torus and to use a needle gun to remove paint from non-flat surfaces. The quality of paint removal from some areas of the torus resulted in failure of these areas to meet established torus surface profiles and rejection by Quality Control. On various occasions during the January/February 2004 time frame, painters were instructed by their super lead foreman and/or foreman respectively to either do what they needed to do to get the job done in response to being told, by painters, that paint removal in some areas (i.e., ring girders and behind the I-ring) could not be accomplished using the authorized methods, or to blast everything (both flat and non flat surfaces) inside the torus. The evidence developed by OI also revealed that the foreman failed to follow RWP requirements and Radcon's verbal instructions himself as he was observed open blasting areas of the torus. Other evidence established that painters were observed exiting the torus covered in a quantity of sand and particles on their face, neck and hair which could only have been the result of open blasting. Testimony also suggested a hesitancy among painters to raise concerns to SWE and/or licensee management regarding blasting activities, including activities that were prohibited by procedures.

Based on the above, the NRC concluded that during the January/February 2004 time frame, a SWE foreman and super lead foreman engaged in deliberate misconduct that caused an NRC licensee (TVA) to be in violation of requirements. Specifically, these individuals knew, directed and/or allowed open blasting to be performed in areas of the Unit 1 torus area contrary to the requirements of RWP 04112101 and the verbal instructions provided by Radcon.