



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

April 11, 2005

EA-05-036

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: FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING AND  
NOTICE OF VIOLATION (NRC Inspection Report No. 05000390/2005008,  
Watts Bar Nuclear Power Plant, Unit 1)

Dear Mr. Singer:

The purpose of this letter is to provide you with the Nuclear Regulatory Commission's (NRC) final significance determination for a finding at your Watts Bar Nuclear Power Plant involving the failure to promptly identify and correct silt blockage of the essential raw cooling water (ERCW) line to the 1A-A centrifugal charging pump (CCP). On November 22, 2004, while performing a manual valve exercising procedure, your staff identified that the 1A-A CCP backup cooling line from the ERCW system was completely blocked with silt. The capability to provide ERCW cooling via this line is significant because the 1A-A CCP is the only high head pump provided with a backup source of raw cooling water. The line, which was subsequently cleared on the day of discovery, had last been tested during July of 2003.

The finding was discussed with you at an exit meeting conducted on January 4, 2005, and was documented in NRC Inspection Report Nos. 05000390/2004005 and 05000391/2004005 dated January 28, 2005, and was assessed under the Significance Determination Process (SDP) as a preliminary White issue for Unit 1 (i.e., an issue of low to moderate safety significance which may require additional NRC inspections). NRC Inspection Report No. 05000390/2005007 dated March 2, 2005, informed Tennessee Valley Authority (TVA) of the NRC's preliminary conclusion, provided TVA an opportunity to request a regulatory conference on this matter, and forwarded the details of the NRC's preliminary estimate of the change in core damage frequency ( $\Delta$ CDF) for this finding.

In a telephone conversation with Mr. L. Wert of NRC, Region II, on March 11, 2005, Mr. Bill Lagergren of your staff indicated that TVA did not contest the risk significance of this finding or the characterization of the issue as a violation and that TVA declined the opportunity to discuss this issue in a regulatory conference. You subsequently documented these decisions and outlined planned corrective actions in a letter dated March 30, 2005.

After considering the information developed during the inspection and provided in your letter of March 30, 2005, the NRC has concluded that the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate safety significance which may require additional NRC inspections) in the Mitigating Systems cornerstone.

You have 10 business days from the date of this letter to appeal the staff's determination of significance for the identified White finding. Such appeals will be considered to have merit only if they meet the criteria given in NRC Inspection Manual Chapter 0609, Attachment 2.

The NRC also determined that this finding was a violation involving the requirements of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, because TVA failed to promptly identify and correct a condition adverse to quality. Specifically, TVA's actions in response to the previous silt blockage problems did not constitute adequate corrective action to preclude silt blockage of the ERCW line to the 1A-A CCP. In addition, TVA's corrective actions for the blockage of the ERCW line to the 1A-A CCP failed to include efforts to determine if there were other ERCW lines requiring more frequent monitoring that were not included in licensee technical instructions for ERCW Train A and B component flow blockage testing. Accordingly, a Notice of Violation (Notice) is included as an enclosure to this letter. In accordance with the NRC Enforcement Policy, NUREG-1600, the Notice of Violation is considered an escalated enforcement action because it is associated with a White finding.

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 will be achieved is already adequately addressed on the docket in NRC Inspection Report Nos. 05000390/2004005 and 05000391/2004005 dated January 28, 2005; NRC Inspection Report No. 05000390/2005007; and your letter dated March 30, 2005. 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.

Because plant performance for this issue has been determined to be in the Regulatory Response Column, we will use the NRC Action Matrix to determine the most appropriate NRC response for this event. We will notify you of that determination by separate correspondence.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if you choose to provide one) 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. The NRC also includes significant enforcement actions on its Web site at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

For administrative purposes, this letter is issued as a separate NRC Inspection Report, No. 05000390/2005008, and the above violation is identified as VIO 05000390/2005008-01: Inadequate Corrective Action to Identify and Correct Silt Blockage of ERCW Piping. Accordingly, the associated apparent violation, AV 05000390/2005007-01 is now closed.

Should you have any questions regarding this letter, please contact Stephen Cahill, Chief, Reactor Projects Branch 6, at (404)562-4520.

Sincerely,

*/RA/*

William D. Travers  
Regional Administrator

Docket No.: 50-390  
License No.: NPF-90

Enclosure: Notice of Violation

cc w/encl: (See page 4)

Tennessee Valley Authority

4

cc w/encl:

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Nuclear Operations  
Tennessee Valley Authority  
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 B. Carrion, RII  
 R. Hannah, RII  
 K. Clark, RII  
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 Case File EA-05-036

SISP REVIEW COMPLETE: Initials: \_\_\_\_\_  SISP REVIEW PENDING\*: Initials: \_\_\_\_\_ \*Non-Public until the review is complete  
 PUBLICLY AVAILABLE  NON-PUBLICLY AVAILABLE  SENSITIVE  NON-SENSITIVE  
 ADAMS:  Yes  No ACCESSION NUMBER: \_\_\_\_\_

OFFICE	DRP:RII	DRS:RII	EICS:RII	DRP:RII	OE		
SIGNATURE	SJC2	RHB	(ODeMiranda for)	LXW1 for	(CNolan for)		
NAME	SCahill	RBernhard	CEvans	VMcCree	FCongel		
DATE	04/04/05	04/04/05	04/04/05	04/04/05	04/08/05	4/ /2005	4/ /2005
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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DOCUMENT NAME: E:\Filenet\ML051020149.wpd

**OFFICIAL RECORD COPY**

## NOTICE OF VIOLATION

Tennessee Valley Authority  
Watts Bar Nuclear Plant, Unit 1

Docket No.: 50-390  
License No.: NPF-90  
EA-05-036

During an NRC inspection completed on December 31, 2004, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), the violation is listed below:

10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, requires in part that measures shall be established to assure that conditions adverse to quality, such as failures and malfunctions, are promptly identified and corrected.

Contrary to the above, from July 10, 2003, through November 22, 2004, the licensee failed to promptly identify and correct conditions adverse to quality. Specifically, Tennessee Valley Authority's (TVA) actions in response to previous silt blockage problems in essential raw cooling water (ERCW) cooling lines did not constitute adequate corrective action to identify and correct a complete silt blockage of the 1A-A centrifugal charging pump (CCP) backup cooling line from the ERCW system. In addition, on December 8, 2004, TVA's corrective actions for the blockage of the ERCW line to the 1A-A CCP failed to include efforts to determine if there were other ERCW lines requiring more frequent monitoring that were not included in licensee Technical Instructions 67.003 and 67.004, Component Flow Blockage Testing Utilizing Ultrasonics Essential Raw Cooling Water - (Train A and B).

This violation is associated with a White Significance Determination Process finding for Unit 1.

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 will be achieved is already adequately addressed on the docket in NRC Inspection Report Nos. Nos. 05000390/2004005 and 05000391/2004005 dated January 28, 2005; NRC Inspection Report No. 05000390/2005007; and your letter dated March 30, 2005. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation; EA-05-036," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, 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).

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, U.S. Nuclear Regulatory Commission, 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 from the NRC's document system (ADAMS)

Enclosure

accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, 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 2 working days.

Dated this 11<sup>th</sup> day of April 2005