

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

W. L. STEWART  
VICE PRESIDENT  
NUCLEAR OPERATIONS

November 22, 1985

Dr. J. Nelson Grace  
Regional Administrator  
Region II  
U. S. Nuclear Regulatory Commission  
Suite 2900  
101 Marietta St., N.W.  
Atlanta, Georgia 30323

Serial No. 85-769  
NAPS/JHL  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Dear Dr. Grace:

We have reviewed your letter of October 25, 1985, in reference to the inspection conducted at North Anna Power Station from September 2 to October 6, 1985, and reported in Inspection Report Nos. 50-338/85-26 and 50-339/85-26. Our response to the Notice of Violation is addressed in the attachment.

We have determined that no proprietary information is contained in the report. Accordingly, we have no objection to this inspection report being made a matter of public disclosure.

Very truly yours,

*RJ Hardwick*  
+ W. L. Stewart

Attachment

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VIRGINIA ELECTRIC AND POWER COMPANY TO Dr. J. Nelson Grace

cc: Mr. Roger D. Walker, Director  
Division of Project and Resident Programs

Mr. Edward J. Butcher, Acting Chief  
Operating Reactors Branch No. 3  
Division of Licensing

Mr. M. W. Branch  
NRC Resident Inspector  
North Anna Power Station

RESPONSE TO NOTICE OF VIOLATION  
ITEM REPORTED DURING NRC INSPECTION  
CONDUCTED FROM SEPTEMBER 2, 1985 TO OCTOBER 6, 1985  
INSPECTION REPORT NOS. 50-338/85-26 AND 50-339/85-26

NRC COMMENT:

Technical Specification (TS) 6.8.1 requires that written procedures be established, implemented and maintained covering the areas recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, which includes both the areas of equipment control (tagging and locking) and operation of the Auxiliary Feedwater System during both normal and abnormal conditions.

Contrary to the above, the requirements of the TS were not fully implemented in that:

Tagging requirements in Station Administrative Procedure (ADM) 14.0, Tagging of Systems and/or Components (March 31, 1985), were not followed during the repair on motor operated valve MOV 1586 (Work Order 5900029683).

This is a Severity Level IV violation (Supplement I) and applies only to Unit 1.

RESPONSE:

1. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION:

This violation is correct as stated.

2. REASONS FOR THE VIOLATION:

MOV 1586 had a high temperature on its packing leak off line and was identified as the source of high unidentified RCS leakage. With the unit in mode 3, an emergency work order was written (WO 5900029683) to adjust the packing. The adjustment of packing does not require the valve to be tagged. The packing adjustment did not stop the leak and repacking of the valve commenced. Personnel did not recognize the need to install danger tags between the time the packing was adjusted and the initiation of repacking the valve. When it was recognized that danger tags should have been in place, the repacking effort was already in progress. The control switch on MOV 1586 was then covered with a "danger" sticker to prevent remote operation.

3. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

A danger sticker was placed on the remote switch for MOV 1586 to warn against MOV operation while the MOV was repacked on its backseat. The repack effort was completed and the packing assembly was reinstalled without incident.

Operations personnel who were involved in this incident have been given personal counselling to increase their awareness of the need to use danger tags.

4. CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS:

An operations directive concerning implementation of ADM 14.0 will be issued to operations personnel.

5. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

The operations directive will be issued by January 31, 1986.

RESPONSE TO NOTICE OF VIOLATION  
ITEM REPORTED DURING NRC INSPECTION  
CONDUCTED FROM SEPTEMBER 2, 1985 TO OCTOBER 6, 1985  
INSPECTION REPORT NOS. 50-338/85-26 AND 50-339/85-26

NRC COMMENT:

Technical Specification (TS) 6.8.1 requires that written procedures be established, implemented and maintained covering the areas recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, which includes both the areas of equipment control (tagging and locking) and operation of the Auxiliary Feedwater System during both normal and abnormal conditions.

Contrary to the above, the requirements of the TS were not fully implemented in that:

Abnormal Operating Procedure (AP) 1-AP-22.3, Placing 1-FW-P-3A and/or 3B In Service To Feed The Steam Generators Via The MOV Header (November 29, 1979), was inadequate in that, the procedure did not require monitoring pump inlet water temperature. System design requirements of 120F were exceeded during pump operation on September 15, 1985.

This is a Severity Level IV violation (Supplement I) and applies only to Unit 1.

RESPONSE:

1. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION:

This violation is correct as stated.

2. REASONS FOR THE VIOLATION:

Initial procedure preparation and subsequent reviews of 1-AP-22.3 did not address a maximum UFSAR temperature limit of 120F in the emergency condensate storage tank. The storage tank is required to be filled when the tank level reaches 94% indicated level. The flash evaporator makeup water enters the tank very close to the inlet of the feed pumps such that the pump draws a portion of its water from the tank makeup at 132F. Thus the condensate temperature to the pump is not the bulk temperature of the storage tank when make up is in progress. Recent analysis has shown that had the tank temperature been 132F, there would have been sufficient NPSH for pump operation and sufficient cooling for the RCS. Cooling in the RCS is accomplished by boiling heat transfer. The elevated temperature would have reduced the heat transfer capability by only 1.0%. In addition, the auxiliary feedwater system decay heat removal requirement on September 15, 1985 was only about 30% of the design basis requirement. Thus this

increase in temperature is insignificant when considering the mode of heat transfer. An engineering evaluation substantiates this.

3. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

The water from the suction line to the auxiliary feedwater pumps was cooled down to less than 120F by adding water to it from a standby condensate tank and securing the continuous recirculation operation of the auxiliary feedwater pump.

Operating Procedure OP-31.2 and Abnormal Procedure AP-22 series associated with the auxiliary feedwater pumps and tank have been revised to include caution concerning tank temperatures.

4. CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS:

Full compliance has been achieved.

5. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance has been achieved.