

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 20, 1987

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Serial No. 87-252
NO/WDC:pms
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

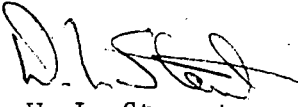
VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
NRC INSPECTION REPORT NOS. 50-280/87-05 AND 50-281/87-05

We have reviewed your letter of April 20, 1987, in reference to the inspection conducted at Surry Power Station on March 1 - April 4, 1987 and reported in Inspection Report Nos. 50-280/87-05 and 50-281/87-05. Our response to the Notice of Violation is addressed in the attachment.

We have no objection to this inspection report being made a matter of public disclosure.

If you have any further questions, please contact us.

Very truly yours,


W. L. Stewart

Attachment

cc: U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Suite 2900
Atlanta, GA 30323

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station

Mr. Chandu P. Patel
NRC Surry Project Manager
PWR Project Directorate No. 2
Division of PWR Licensing-A

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PDR ADOCK 05000280
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RESPONSE TO NOTICE OF VIOLATION ITEMS REPORTED DURING
NRC INSPECTION CONDUCTED ON MARCH 1 - APRIL 4, 1987
INSPECTION REPORT NO. 50-280/87-05 AND 50-281/87-05

NRC COMMENT:

During the Nuclear Regulatory Commission (NRC) inspection conducted between the period of March 1 to April 6, 1987, a violation of NRC requirements was identified. The violation identified involved failures to provide adequate detailed instructions and failures to follow procedures. The examples cited involve several plant areas including operations, maintenance, and surveillance. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1986), the violation is listed below:

Technical Specification 6.4. requires that detailed written procedures with appropriate check-off lists and instructions shall be provided for preventive or corrective maintenance operations which would have an effect on the safety of the station, and operational procedures involving normal startup, operating and shutdown of the unit. The Technical Specification also requires that all procedures described above shall be followed.

- A. Contrary to the above, appropriate instructions were not provided for maintenance of RHR pumps in that maintenance procedure MMP-C-RH-015, which was used to overhaul RHR pump 2-RH-P-1B in October 1986, had step 5.4.4.3 deleted without providing appropriate instructions to assure that the pump and motor alignment was not adversely affected. Subsequent repair confirmed that wear ring degradation as a result of misalignment did occur.
- B. Contrary to the above, appropriate instructions were not provided for testing of RHR pumps when periodic test procedure 1(2)-PT-30.1, which was used to test RHR pumps for Unit 1 on December 13, 1986, and Unit 2 on October 11, 1986, listed incorrect delta pressure acceptance criteria in several steps used to determine operability of the pumps. In addition, completed procedure 1-PT-30.1 performed on December 13, 1986, was reviewed by VEPCO's Engineering Department in December/January and no discrepancies were noted despite the incorrect acceptance criteria.
- C. Contrary to the above, detailed written surveillance procedures were not followed when step 5.1.9 of periodic test 2-PT-2.9A "Steam Flow (F-2-485)" was marked "N/A" on March 16, 1987, by the instrument technician without conferring with the shift supervisor as required. The procedure provided instructions for troubleshooting a steam flow instrument and failure to follow this procedure resulted in a reactor trip.
- D. Contrary to the above, detailed written procedures were not followed when Maintenance Operating Procedure 2-MOP-8.3 "Removal of 2-CH-P-1B Charging Pump for Maintenance" was not used when operations personnel racked out the B charging pump breaker on March 22, 1987.

E. Contrary to the above, detailed written operations procedures were not followed when administrative procedure SUADM-0-10 "Operations Department Procedures," which provides instructions for operation of plant equipment, was not followed in that main steam valves 1-MS-74, 106, and 143 were found open on March 22, 1987, after the valves were verified closed on February 17, 1987, with no subsequent documentation of valve operations.

This is a Severity Level IV Violation (Supplement 1), and applies to both units.

RESPONSE:

1. Admission or denial of the alleged violation:

The violation is correct as stated.

2. Reason for the violation:

The violation as a whole is a result of human error and lack of attention to detail in completing the required documentation. The reason for each example contributing to the violation is provided below.

For Part A, review of the deletion of Step 5.4.4.3 by deviation of procedure MMP-C-RH-015 was in accordance with station procedural and Technical Specification requirements. Rust and pitting on the face of 2-RH-P-1B motor lower flange interfered with runout measurement of the face flatness. After review of the high radiation levels in the RHR pump area, and after consulting with the Ingersoll-Rand technical representative who was on-site at the time, the decision was made to reinstall the motor without machining the flange face and reverifying runout to be within the tolerance specified by step 5.4.4.3. It was decided to monitor 2-RH-P-1B alignment, wear, and performance using vibration analysis. Full operability was demonstrated in accordance with ASME Section XI requirements. Subsequent monitoring verified acceptable, but not improved, pump and motor performance. When the pump was subsequently disassembled and inspected, some wear was observed on the pump wear ring, indicating a slight pump to motor misalignment. While the pump remained operable, additional engineering review of the decision to proceed without reverification of alignment should have taken place.

Part B was a result of an administrative error that was not discovered during review of the Periodic Test.

Part C of the violation was a result of personnel error. The periodic test procedure requires the technician to ensure plant conditions are appropriate for the test. The technician believed the specific step to be "Not Applicable" and noted it so without discussing the plant status with operations. The unit had been shut down for approximately three months, and this procedure had been performed about ten times since shutdown. The technician was not aware that the reactor trip breakers had been closed prior to commencement of the testing and assumed that the step continued to be not applicable.

Part D was also a result of personnel error. Charging pump 2-CH-P-1B was already out of service. The SRO assumed that the pump was already tagged out and that only an additional tag was being placed on the breaker. As a result, he did not direct the watchstanders to use the appropriate procedure (2-MOP-8.3) to remove the pump from service.

Part E is believed to be a result of personnel error. The valves were verified in position in accordance with valve lineup 1-OP-28A prior to startup. It is believed that an operator manipulated the valves to blowdown the MSTV steam traps, and following the evolution, did not return the valves to their as found position. A possible contributor may be the difference in normal valve position between Units 1 and 2 for MSTV steam traps, which may have led the operator to assume he was leaving the valves in the correct position.

3. The corrective steps that have been taken and the results achieved:

Station Management discussed the specific events with the applicable departments. The importance of following procedures, documenting actions, and attention to detail was reemphasized. Additionally, for Part A, the RHR pump motor was replaced. The pump to motor support face which was pitted was rebuilt and machined and proper runout and alignment was verified. Maintenance procedure MMP-C-RH-015 was revised to include additional technical information and instructions. For Part B, PT-30.1 was revised to reference the correct acceptance criteria. For Part C, a peer group review of the event and its contributing factors was conducted by the instrument technicians. For Part D, a Human Performance Evaluation was conducted. For Part E, on the valve lineup sheets MSTV steam trap valve positions were revised to be consistent between Units 1 and 2.

4. The corrective steps that will be taken to avoid further violations:

No further action is deemed necessary.

5. The date when full compliance will be achieved:

Full compliance has been achieved.