

NOTICE OF VIOLATION

Virginia Electric and Power Company
North Anna Power Station

Docket Nos. 50-338, 50-339
License Nos. NPF-4, NPF-7

During the Nuclear Regulatory Commission (NRC) inspection conducted on October 5-9, 1987, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR 50 Part 2, Appendix C (1987), the violations are listed below:

- A. 10 CFR 50, Appendix B, Criterion V requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and that such activities be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, the licensee's maintenance procedures were deficient in the following cases:

Procedure MMP-C-SOV-1 is used to troubleshoot, repair, replace and/or test solenoid valves. When this procedure is used, there are actions that can disturb or partially disassemble the electrical conductor seal assembly (ECSA). The ECSA is required to be torqued to manufacturer's specifications as called for in the ECSA Qualification Document Review (QDR) file when it is disturbed or partially disassembled. Procedure MMP-C-SOV-1 does not address retorquing of ECSAs that may have been disturbed or partially disassembled before returning it to operable status. Therefore, the procedure is inadequate.

The low head safety injection (LHSI) pump motors are to have their bearings replaced after operating a specified number of hours. There was no procedure to track and record the number of operating hours and no procedure to replace the bearings after the specified number of operating hours.

Various safeguard equipment vent fans have an Environmental Qualification (EQ) maintenance requirement to change out the bearing grease or to sample it to ensure that it is satisfactory. This is to be accomplished every refueling outage. This requirement was not addressed in the station maintenance program.

This is a Severity Level IV violation (Supplement 1).

B. 10 CFR 50.49(f) requires that each item of electrical equipment important to safety must be qualified by one of the following methods:

- (1) Testing an identical item of equipment under identical conditions or under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
- (2) Testing a similar item of equipment with a supporting analysis to show that equipment to be qualified is acceptable.
- (3) Experience with identical or similar equipment under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
- (4) Analysis in combination with partial type test data that supports the analytical assumptions and conclusions.

Contrary to the above, the licensee operated after the November 30, 1985, deadline for compliance with 10 CFR 50.49 with Raychem splices that were not qualified in that they were installed in a configuration that was not tested and which was not supported by supplementary analysis.

This is a Severity Level IV violation (Supplement 1).

C. 10 CFR 50.49(f) requires that each item of electrical equipment important to safety must be qualified by one of the following methods:

- (1) Testing an identical item of equipment under identical conditions or under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
- (2) Testing a similar item of equipment with a supporting analysis to show that the equipment to be qualified is acceptable.
- (3) Experience with identical or similar equipment under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
- (4) Analysis in combination with partial type test data that supports the analytical assumptions and conclusions.

Contrary to the above, the licensee operated after November 30, 1985 with nine motors (MOV-SW-103B, 103C, 104A, 104B, 104C, 203C, 213A, MOV 2350 and MOV 2890A) installed on Motor-Operated Valves, which differed from the tested motors and for which the qualification was not supported by supplementary analysis.

This is a Severity Level IV violation (Supplement 1).

- D. 10 CFR 50.49(d)(1) requires that the qualification file for electrical equipment important to safety specify the performance requirements under conditions existing during and following design basis accidents and 10 CFR 50.49(j) requires that a record of such must be maintained in an auditable form.

Contrary to the above, at the time of the inspection, the performance characteristics of electrical equipment important to safety were not adequately addressed in the licensee's equipment qualification files.

The following examples were noted by the Inspection Team:

- The Rockbestos cable (Firewall III and Pyrotrol III) files did not specifically address the effects of leakage currents and the acceptability of such for North Anna.
- The Brand Rex 300V and 600V cable file did not contain specific acceptance criteria for calculated errors due to insulation resistance effects.

This is a Severity Level IV violation (Supplement 1).

Pursuant to the provisions of 10 CFR 2.201, Virginia Electric and Power Company is hereby required to submit a written statement or explanation to the 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, North Anna, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include [for each violation]: (1) admission or denial of the violation, (2) the reason for the violation if admitted, (3) the corrective steps which have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken.

FOR THE NUCLEAR REGULATORY COMMISSION

ORIGINAL SIGNED BY:
J. NELSON GRACE

J. Nelson Grace
Regional Administrator

Dated at Atlanta, Georgia
this 19th day of April 1988