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DUKE POWER

October 1, 1992

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

Subject: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414
Reply To A Notice Of Violation
NRC Inspection Report 50-413/92-18 and 50-414/92-18

Attached is Duke Power's response to the Level IV violation cited in the Notice of Violation by subject Inspection Report dated September 4, 1992.

The violation involved an incorrect operator response for an annunciator.

Very truly yours,

M.S. Tuckman

M.S. Tuckman

JLL/

Attachment

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xc: S.D. Ebnetter
Regional Administrator, Region II

R.E. Martin, ONRR

W.T. Orders
Senior Resident Inspector

DUKE POWER COMPANY
REPLY TO A NOTICE OF VIOLATION
413/92-18-02

Technical Specification 6.8.1 requires in part that written procedures be established, implemented and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Operations Management Procedure (OMP) 1-8, Authority and Responsibility of Licensed Reactor Operators and Senior Reactor Operators, Section 7.2.B, describes the responsibilities of the Operator at the Controls (OATC). Step 7.2.B.9.c requires that the OATC verify that the appropriate automatic actions for an alarm have taken place prior to taking recovery actions.

Contrary to the above, OMP 1-8 was not followed on July 17, 1992, when the OATC did not verify the appropriate automatic actions when Train A of the Unit 1 Boron Dilution Mitigation System (BDMS) alarmed. The BDMS actuation caused the suction source of the Centrifugal Charging Pump to switch from the Volume Control Tank (VCT) to the Refueling Water Storage Tank (FWST). The OATC closed the suction valve from the FWST but failed to reopen the suction valve from the VCT. The OATC did not refer to the annunciator response procedure to verify that the automatic actions for the BDMS alarm had taken place prior to taking action to recover from the actuation.

This is a Severity Level IV violation and applies to Unit 1.

RESPONSE:

1. Reason For Violation

This incident is attributed to inappropriate OATC action. The OATC, believing the BDMS alarm to be spurious, acted pre-maturely to restore normal suction to Charging Pump 1B. Upon receiving the BDMS actuation alarm, the OATC did not immediately refer to the appropriate annunciator response procedure to verify which automatic actions had taken place prior to taking recovery action. The appropriate annunciator response procedure was referred to following closure of INV-252 (Charging Pump Suction from FWST). Failure to immediately refer to the appropriate annunciator response procedure resulted in closing INV-252 out of sequence.

2. Corrective Actions Taken and Results Achieved

The Boron Dilution Mitigation System (BDMS) was immediately reset and the affected valves re-aligned.

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An In-service Pump Test (IWP) was immediately performed on Charging Pump 1B to assess any damage incurred as a result of pump operation without a suction source for approximately forty (40) seconds. Upon evaluation of the IWP data, which verifies acceptable net positive suction head, pump head, pump bearing temperatures, and vibration, it was determined that Charging Pump 1B did not sustain any damage and therefore remained operable throughout the period.

Increased surveillance was put in place, following the IWP test, to monitor Charging Pump 1B suction and discharge differential temperature. Charging Pump 1B differential temperature peaked at 13.1 degrees approximately seven (7) hours after pump start, and began a downward trend to 10.6 degrees four (4) hours following the peak, which indicated no damage to the pump.

An "Operator Update" was issued on August 11, 1992 to remind Licensed Operators of the need to ensure the NV Pump suction source is maintained when a BDMS alarm is received.

A modification to the BDMS system was initiated and completed during IEOC6 (current outage) as a result of continuing BDMS system spurious alarms. This modification grounded the system to station ground, as opposed to instrument ground, thereby eliminating the induced noise causing these spurious alarms. Following completion of this modification, no further problems with spurious BDMS alarms were encountered for the remainder of the outage.

3. Corrective Actions to be Taken to Avoid Further Violations

The Operations Training Department will re-emphasize appropriate BDMS alarm recovery actions in classroom training, and training will be expanded to include an actual BDMS actuation on the simulator such that the Licensed Operators demonstrate appropriate recovery actions following receipt of a BDMS alarm by April 1, 1993.

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A warning tag at the BDMS "Enable/Bypass" switch will be implemented as a precautionary means for recovery upon receipt of a BDMS alarm. Procedure changes directing the Licensed Operators on the use of this tag will be completed by January 1, 1993. These procedure changes will be made to direct the Licensed Operators to place this tag at the BDMS "Enable/Bypass" switch on the Control Room Motor Control Board when BDMS is "Enabled", and removed when BDMS is "Bypassed". The warning tag will state the following:

WARNING
BDMS ACTUATION CAUSES NV PUMP
SUCTION TO SWAP FROM VCT TO FWST

Operations Management Procedure (OMP) 1-8, Step 7.2.B.9 will be revised to better define management expectations relative to OATC response to abnormal alarms by April 1, 1993.

4. Date of Full Compliance

Duke Power is now in full compliance.