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 AUTH. NAME AUTHOR AFFILIATION
 ROBINSON, W.R. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Forwards response to NRC 950302 ltr re violations noted in insp rept 50-400/95-02.C/A:temp mod to bypass thermal overloads installed on six AFW MOVs until enhanced testing could be performed when allowed.

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NOTES: Application for permit renewal filed. 05000400

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William R. Robinson
Vice President
Harris Nuclear Plant

MAR 3 0' 1995

File: HO-950510

Serial: HNP-95-035
10 CFR 2.201

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63,
REPLY TO A NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-400/95-02,
MOTOR OPERATED VALVE THERMAL OVERLOAD BYPASS TESTING)

Gentlemen:

Attached is Carolina Power & Light Company's reply to the Notice of Violation described in Enclosure 1 of your letter dated March 2, 1995.

Questions regarding this matter may be referred to Mr. D. C. McCarthy at (919) 362-2100.

Sincerely,

W. R. Robinson

MGW

Attachment

c: Mr. S. D. Ebnetter (NRC-RII)
Mr. S. A. Elrod (NRC-SHNPP)
Mr. N. B. Le (NRR)

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PDR ADCK 05000400
PDR

State Road 1134 New Hill NC Tel 919 362-2502 Fax 919 362-2095

JED

**REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT NO. 50-400/95-02**

Reported Violation:

Technical Specification 4.8.4.2 requires that the thermal overload protection for each valve, specified in the Technical Specification Equipment List Program, plant procedure PLP-106, requiring bypass protection, shall be verified to be bypassed only under accident conditions by an OPERABLE integral bypass device by the performance of a TRIP ACTUATION DEVICE OPERATIONAL TEST of the bypass circuitry at least once per 18 months for those thermal overloads which are normally in force during plant operation and are bypassed only under accident conditions.

Contrary to the above, on January 19, 1995, it was determined that the thermal overload protection, for six auxiliary feedwater motor operated valves, was inadequately tested. The test used did not isolate all electrical flow paths other than the bypass relay contacts, and therefore did not conclusively show the bypass relay to be operable. Specifically, the test did not interrupt the normal electrical flow path through the thermal overload contacts.

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

Denial or Admission:

The violation is admitted.

Reason for the Violation:

On January 19, 1995, a review and evaluation of plant operational electrical surveillance test procedures revealed that the proper operation of the thermal overload (TOL) bypass function for Auxiliary Feedwater (AFW) System valves 1AF-55, 1AF-74, 1AF-93, 1AF-137, 1AF-143 and 1AF-149 (AFW pump discharge isolation valves), as well as Main Steam (MS) System Valve 1MS-70 (AFW turbine driven pump steam supply valve), had not been adequately tested. The testing methodology utilized to verify the TOL bypass function included confirmation that the applicable relay actuated and rolled, that contacts on that relay made up, and that the motor operated valves (MOVs) stroked. This proved that the relay functioned properly and that certain circuit paths were operable. However, due to the existence of parallel circuit paths during this testing alignment, there was not conclusive proof that all bypass contacts and associated circuits were functioning as required. The inadequate thermal overload (TOL) testing was caused by deficiencies which existed in the surveillance testing methodology established during initial plant startup.

Reference:

Licensee Event Report 95-001-00 submitted to the Commission on February 16, 1995.

Corrective Steps Taken and Results Achieved:

On January 19, 1995, a temporary modification (ESR-95-00039 & ESR-95-00058) to bypass the thermal overloads was installed on the six AFW MOVs until enhanced testing could be performed when plant conditions allow (i.e., plant shutdown.) Test procedure OST-1812, Auxiliary Feedwater Isolation: ESF Response Time 18 Month Interval Modes 4-6, was revised on February 20, 1995, to adequately verify the operability of the TOL bypass function for the six AFW MOVs. This testing is currently planned for RFO#6 scheduled to begin September 2, 1995.

Test procedure OST-1044, ESFAS Train A Slave Relay Test Quarterly Interval Modes 1-4, for IMS-70 was revised (TC-00001) and successfully performed on January 19, 1995, to verify the operability of its TOL bypass function.

On January 25, 1995, during additional investigation, three examples of inadequate TOL bypass function testing for Control Room Emergency Ventilation Valves (1CZ-22, 1CZ-24, 1CZ-26) were identified. This investigation revealed that during a revision to the Engineered Safety Feature Train "B" Response Time Test Procedure (OST-1826), that was completed prior to the most recent refueling outage (RFO #5), the requirement to place the TOL test switch to "test" was inadvertently deleted. This condition also allowed for the existence of parallel circuit paths during the test alignment and the subsequent inconclusive proof that all bypass contacts and associated circuits were functioning as required. Immediate corrective actions for this condition included completing a procedure revision to the Engineered Safety Feature Train "B" Slave Relay Test (OST-1084) and successfully performing the procedure to verify TOL bypass operability. These actions were completed on January 25, 1995. Procedure OST-1826 will be revised to properly verify the operability of TOL bypass functions by October 6, 1995.

Corrective Steps Taken to Prevent Further Violations:

A review was performed of PLP-106 and the applicable surveillance test procedures to ensure that TOL bypass functions are properly identified and tested as required. No additional discrepancies were found.

An additional review will be performed of surveillance test procedures to identify similar applications of the previously accepted testing methodology. This will ensure that component testing explicitly required by Technical Specifications, properly verifies each aspect of the required component function. This review will be completed by June 30, 1995.

It is noteworthy to acknowledge that the AFW and MS valve actuators have been designed, setup and satisfactorily tested in accordance with the requirements of the Generic Letter 89-10, Motor Operated Valve Program. By satisfying the GL 89-10 requirements, the AFW and MS valve actuators have demonstrated their ability to close during design accident conditions, even without the thermal overload functions bypassed. Furthermore, our operating and maintenance history with these particular relays (which accomplish valve actuation and bypass function) has been such that no relay failures have been experienced which would have led to the described scenario. This, in conjunction

Corrective Steps Taken to Prevent Further Violations: (continued)

with the previously performed surveillance testing, provides confidence that the valves would have shut in the event of a design basis accident.

For the Control Room Emergency Ventilation Valves (1CZ-22, 1CZ-24 and 1CZ-26) that were not tested as required during RFO #5, proper operation of the TOL bypass function was demonstrated by satisfactory testing on January 25, 1995. These MOV TOL bypass functions had also been previously verified during successful ESF B Train Response Time Testing during each of the preceding refueling outages. Based on this, there is a high level of confidence that they would have performed their design function had an accident occurred which required a Control Room Ventilation Isolation Signal.

Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by October 6, 1995 (end of RFO#6), with the completion of the corrective steps stated above.