



J. D. Woodard  
Vice President  
Farley Project

Southern Nuclear Operating Company

May 29, 1992

*the southern electric system*

10 CFR 2.201

Docket Nos. 50-364

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

Joseph M. Farley Nuclear Plant, Unit 2  
Reply to Notice of Violation  
Report Number 50-364/92-09  
Item Number 50-364/92-09-01  
NRC Inspection of March 9 - April 13, 1992

Gentlemen:

This letter refers to the violation cited in the subject inspection report.  
The violation states:

10 CFR Part 50, Appendix B, Criterion XVI, and the J. M. Farley Plant Operations Quality Assurance Policy Manual, requires measures to assure that conditions adverse to quality, such as failures, malfunctions and defective equipment are promptly identified and corrected. Such measures are to be taken to assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, on March 6, 1992, during a plant shutdown for a planned Unit 2 refueling outage, a preventable, automatic reactor trip occurred. This trip was caused by a change in reactor nuclear flux distribution characteristics and related "high neutron flux" effects on the intermediate range nuclear instrumentation trip circuitry. Similar "high neutron flux" effects on the intermediate range instruments resulted in a February 1984, Unit 1 reactor trip, and a bypassing of the Unit 2 intermediate range instruments in order to conduct a planned shutdown in October 1990.

If the licensee's proposed corrective actions had been implemented in a timely manner for the February, 1984 and the October, 1990 events, this challenge to the Unit 2 reactor protection system and the resulting trip may have been prevented.

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

Admission or Denial

The above violation occurred as described in the subject report. However, while the February 1984 event was similar with regard to an intermediate range reactor trip, the cause of the 1984 event versus the 1990 and 1992 events was different. Corrective action taken in 1984 was adequate to resolve the cause of the 1984 event.

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Reason for Violation

This violation was caused by personnel error in that there was a failure to implement and track corrective actions associated with the October 1990 reactor trip event.

On February 10, 1984, an event occurred at FNP in which the reactor tripped at 10% power when intermediate range (IR) detector high flux trip bistables were unblocked. This event was caused by overly conservative trip setpoints having been utilized on new IR detectors. The event was not caused by a change in the neutron flux distribution as was the case in the March 6, 1992 reactor trip. Corrective action, as documented in LER 84-002, adequately addressed the February 1984 event. The corrective action for the 1984 event did not prevent the March 6, 1992 reactor trip because the IR trip reset point was below P-10 for a different reason.

On October 13, 1990, during a scheduled Unit 2 reactor shutdown for refueling, Technical Specification 3.0.3 was voluntarily entered. This was necessary because both IR instruments were inoperable. One was inoperable due to loss of cover gas and the other was due to bypassing its high level trip function. Level trip bypass was selected because the operators recognized that the IR trip bistable was still in the trip condition prior to automatic reinstatement of the IR reactor trip function. Corrective actions to address this event included replacement of the first IR detector and recalibration of the second instrument. These corrective actions were documented in LER 90-003 and the corrective actions were completed during the fall 1990 outage.

In addition to the LER, an incident report had been written as a result of the reportable event of having two IR instruments inoperable. Although the corrective actions specified in LER 90-003 were felt to be adequate, further investigation of the event by Reactor Engineering resulted in additional recommended actions. Due to personnel error, these recommended actions were not taken. Personnel in the Reactor Engineering group did not act on the corrective actions because they were not notified that their recommended actions had been approved by the Operations Manager. This notification did not occur because the personnel responsible for tracking incident report corrective actions incorrectly assumed that incident report corrective actions could be considered complete if associated LER corrective actions were complete. Since LER 90-003 corrective actions had been completed, the corrective action tracking group did not notify Reactor Engineering to perform their additional recommended action in the associated incident report. Thus, there was no feedback from the corrective action tracking group to the group responsible for implementation.

Corrective Action Taken and Results Achieved

The IR high flux trip reset setpoints have been raised on both units to increase the probability for the IR trip to reset prior to the P-10 trip re-enable setpoint. In addition, operations procedures have been revised to verify IR high flux trip bistables are clear prior to reaching the P-10 re-enable setpoint. An investigation is still in progress to determine if further actions are considered necessary to account for the flux redistribution impact on the IR instruments due to rod height and core life.

With regard to the implementation of corrective actions, a review of all incident reports associated with LERs for the last five years was conducted. Corrective actions associated with the incident reports and LER's were verified to have been completed or currently identified in the corrective action tracking system as open items.

Corrective Steps To Avoid Further Violations

Personnel tracking incident report corrective actions have been reinstructed concerning the need to track all incident report corrective actions and provide notification to the group(s) responsible for implementation.

Date of Full Compliance

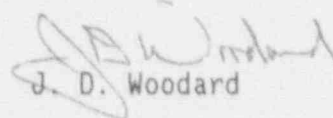
All corrective actions are complete with the exception of the investigation associated with the flux redistribution which will be complete by June 30, 1992.

Confirmation

I affirm that . . s response is true and complete to the best of my knowledge, information, and belief. The information contained in this letter is not considered to be of a proprietary nature.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

  
J. D. Woodard

JDW/EFB:map 2513

cc: Mr. S. D. Ebnetter  
Mr. S. T. Hoffman  
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