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the southern electric system

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Docket No.: 50-348
50-364

10 CFR 2.201

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

Joseph M. Farley Nuclear Plant
Reply to a Notice of Violation and a Notice of Deviation
NRC Inspection Report Numbers 50-348/96-07 and 50-364/96-07

Ladies and Gentlemen:

As requested by your transmittal dated September 27, 1996, this letter responds to VIO 50-348, 364/96-07-01, "Misadjustment of Unit 1 NIS Intermediate Range Compensating Voltage" and DEV 50-348, 364/96-07-02 "Failure To Fulfill Pressure Sensor RTT Commitments".

Southern Nuclear Operating Company (SNC) considers all commitments to the NRC in support of technical specification amendments to be extremely important. SNC takes seriously its obligation to ensure that these important commitments are accomplished in a timely and detailed manner.

The SNC responses are provided in the enclosures.

Confirmation

I affirm that the responses are true and complete to the best of my knowledge, information, and belief.

Respectfully submitted,

Dave Morey

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Enclosures on next page

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Enclosures:

1. Response to VIO 96-07-01
2. Response to DEV 96-07-02

cc: Mr. S. D. Ebnetter, Region II Administrator
Mr. J. I. Zimmerman, NRR Project Manager
Mr. T. M. Ross, Plant Sr. Resident Inspector

ENCLOSURE 1

VIO 50-348/96-07-01

"Misadjustment of Unit 1 NIS Intermediate Range Compensating Voltage"

Enclosure 1

VIO 50-348/96-07-01, "Misadjustment of Unit 1 NIS Intermediate Range Compensating Voltage" states:

Technical Specification (TS) 6.8.1.a requires that applicable written procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, dated February 1978, shall be established, implemented, and maintained. Regulatory Guide 1.33, Appendix A, Section 8.b, recommends that specific procedures for surveillance tests should be written for reactor protection system and permissives - tests and calibrations. Step 5.4 of the Precautions and Limitations of FNP-0-IMP-228.4, Nuclear Instrumentation System Intermediate Range Compensating Voltage Adjustment, states that compensating voltage should not be adjusted when plant power descends below the intermediate range scale and source range level is below 100 to 500 counts per second (cps). Step 5.3 also states that once compensating voltage has been adjusted after a shutdown, it should not need readjustment unless the detector characteristics have changed.

Contrary to the above, on May 4, 1996, the Unit 1 nuclear instrumentation system (NIS) intermediate range channel compensating voltage for NI-35 was adjusted by plant technicians even though it was below the bottom scale and source range counts were less than 100 cps. A similar event occurred on January 14, 1995, during the adjustment of Unit 1 NIS intermediate range channel NI-36.

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

Admission or Denial

The violation occurred as described in the Notice of Violation.

Reason for Violation

The cause of this violation was procedural inadequacy in that the implementing procedure did not specify which source range indication(s) to use for assessing minimum source range level.

On January 14, 1995 during the adjustment of Unit 1 NIS intermediate range channel NI-36, the resident inspector questioned the adjustment of compensating voltage while the source range level was close to 100 cps. Subsequent discussions with the vendor confirmed that the 100 cps minimum was provided as a typical source range value below which there may not be enough gamma pulses sensed to make an accurate compensating voltage adjustment. On June 26, 1995 a procedure change was issued which corrected an additional issue raised by the resident inspector, however, guidance for assessing the minimum source range level was not addressed.

Enclosure 1

On May 4, 1996, the Unit 1 nuclear instrumentation system (NIS) intermediate range channel compensating voltage of NI-35 was adjusted after a planned unit shutdown. Prior to adjustment the technician looked at the source range level to verify the plant was still above the 100 cps minimum source range level as specified in the procedure. Source range channels NI-31 and NI-32 were both indicating greater than 100 cps at that time. Subsequently, as the performance of the procedure progressed, source range level continued to decrease as expected. When source range channel NI-31 was indicating approximately 70 to 80 cps and source range channel NI-32 was indicating approximately 140 to 150 cps, the technician assessed source range level. Source range level was determined by the technician to be above 100 cps based on the average source range counts being above 100 cps.

Corrective Steps Taken and Results Achieved

This issue was discussed with the vendor. In the vendor's engineering judgment, in this case the use of the average source range counts to determine minimum level did not result in an incorrect compensation voltage adjustment.

Corrective Steps That Will Be Taken to Avoid Further Violation

Procedures will be changed to reflect the specific method to be used for determining minimum source range level.

The appropriate individuals have been coached concerning the necessity for timely resolution of apparent procedural inadequacies.

Date of Full Compliance

December 1, 1996.

ENCLOSURE 2

DEV 50-348, 364/96-07-02,
"Failure To Fulfill Pressure Sensor RTT Commitments"

Enclosure 2

DEV 50-348, 364/96-07-02, "Failure To Fulfill Pressure Sensor RTT Commitments" states:

By letter dated August 17, 1994, as supplemented by letters dated June 15 and August 11, 1995, the Southern Nuclear Operating Company (SNC) made a number of commitments in their request to eliminate TS surveillance requirements for periodic response time testing (RTT) of pressure and differential pressure sensors in the Reactor Trip System (RTS) and Engineered Safety Feature Actuation System (ESFAS). These commitments were affirmed in the NRC safety evaluation report (SER) dated September 28, 1995, and provided a significant part of the basis by which SNC's TS amendment was approved. They were also incorporated into the TS Bases.

As restated in the NRC SER, SNC committed to accomplish the following:

- (1) Revise applicable plant surveillance test procedures to stipulate that allocations for pressure sensor response times must be verified by performance of an appropriate RTT prior to placing a sensor in operational service and re-verified following maintenance that may adversely affect sensor response time, such as replacing the sensing assembly;
- (2) Revise plant procedures and other appropriate administrative controls to stipulate that pressure sensors utilizing capillary tubes, e.g., containment pressure, must be subjected to RTT after initial installation and following any maintenance or modification activity which could damage the capillary tubes;
- (3) Utilize allocated sensor response times in accordance with the methodology contained in Section 9.0 of WCAP-13632, Revision 2, to verify total RTS and ESFAS channel response time.

Contrary to the above, SNC failed to properly fulfill its commitments when implementing the TS amendment changes approved on September 28, 1995, by the NRC in Facility Operating License amendment numbers 116 for Unit 1 and 108 for Unit 2. Item (1) was only partially addressed by surveillance test procedure changes for Unit 1, and not at all for Unit 2. Item (2) was overlooked on both units. And, item (3) was addressed by surveillance test procedure changes for Unit 1 but not for Unit 2.

Admission or Denial

The deviation occurred as described in the Notice of Deviation.

Reason for Violation

The cause of the Deviation was personnel error in that: 1) the Operations Manager did not assure that all necessary action had been taken to satisfy the commitments of the SER prior to approving issuance of the amendments, and 2) Maintenance did not adequately address the commitments prior to issuance of the Technical Specification amendment.

Corrective Steps Taken and Results Achieved

A review of other Technical Specification amendments and their SER's for time periods of approximately two years on Unit 1 and three years on Unit 2 did not identify any other failure to properly incorporate amendments.

Surveillance Test Procedures and RTT procedures for transmitters for pressurizer pressure, containment pressure, steam line pressure, steam generator levels, and K₂S flows have been revised to fully address the commitments.

A work history search for both Units was performed to determine if repair or replacement had taken place since approval of the amendments that would have required performance of RTT to comply with the amendments. The Steam Generator Level Tap Modification that was ongoing on Unit 1 at the time was the only activity associated with the affected instruments. RTT had been performed as required on these instruments and the associated spare instruments.

Planners, Team Leaders, Assistant Team Leaders, and Shift Supervisors have been made aware of the requirements of the commitments and instructed that in the event of damage to or replacement of an associated pressure sensing device, the planning sequence of the work order is to require RTT following maintenance.

Corrective Steps That Will Be Taken to Avoid Further Violation

Guidance in Operations' procedures has been developed to better define the methodology for review and issuance of Technical Specification amendments.

The I&C supervisor involved with this event has been coached on the importance of clearly communicating the status of activities and on ensuring that the proper attention and sensitivity is demonstrated for commitments to ensure they are fully satisfied.

The Operations Manager has been coached on the importance of insuring all commitments associated with Technical Specification amendments have been met prior to approving issuance of the amendments.

Enclosure 2

Date of Full Compliance

October 24, 1996