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Docket Nos. 50-321
50-366

HL-5409

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

Edwin I. Hatch Nuclear Plant
Reply to a Notice of Violation

Gentlemen:

In response to your letter dated May 5, 1997, and according to the requirements of 10 CFR 2.201, Southern Nuclear Operating Company (SNC) is providing the enclosed response to the Notices of Violation associated with Inspection Report 97-02. In the enclosure, a transcription of the NRC violation precedes the SNC response.

Sincerely,

H. L. Sumner, Jr.

DLM/eb

Enclosures:

1. Violation 97-02-02 and SNC Response
2. Violation 97-02-03 and SNC Response
3. Violation 97-02-05 and SNC Response

cc: Southern Nuclear Operating Company
Mr. P. H. Wells, Nuclear Plant General Manager
NORMS

U. S. Nuclear Regulatory Commission, Washington, D. C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

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U. S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch



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Enclosure 1

Edwin I. Hatch Nuclear Plant
Violation 97-02-02 and SNC Response

VIOLATION 97-02-02

Technical Specification (TS) 5.4 requires, in part that written procedures shall be established, implemented, and maintained covering the activities in the applicable procedures recommended in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978. Appendix A: Typical Procedures for Pressurized Water Reactors and Boiling Water Reactors, of the RG, paragraph 1, Administrative Procedures, recommends procedures for Equipment Control (e.g., locking and tagging), paragraph 9, recommends procedures for performing maintenance and modifications.

Administrative Control Procedure 30AC-OPS-001-0S, "Control of Equipment Clearance and Tags," Revision 15, sections 8.12, Temporary Releases, and 8.13, Releasing Clearances, Subclearances, and Components, requires, in part, that the sequence in which a clearance is removed and restored must be specified. Implicit in this instruction is that the sequence be correct to prevent unwanted Engineered Safety Feature Actuations. Sections 4.2.2, 4.7.1, and 8.8.3 of the procedure specify the responsibilities of personnel and indicates that no work is to be performed prior to establishing an approved clearance.

Procedure 17MS-MMS-002-0S, "DCR Process," Revision 1, section 7.4.1, requires, in part, that prior to issuing Maintenance Work Orders (MWOs), the responsible Design Control Request Implementer was to ensure Special Design Considerations were identified on MWOs and Work Process Sheets (WPS).

Procedure 50AC-MNT-001-0S, "Maintenance Program," Revision 24, section 4.9, requires, in part, that Plant Maintenance and Modification (PMMS) personnel were responsible to ensure that a Fire Protection Evaluation is completed prior to scheduling work on equipment serving or impacting Fire Protection.

Procedure 40AC-ENG-003-0S, "Design Control," Revision 8, step 8.2.2.8, requires, in part, that design packages approved for implementation will be field installed in accordance with procedure 50AC-MNT-001-0S, "Maintenance Program."

Procedure 50AC-MNT-001-0S, "Maintenance Program," Revision 24, step 4.2.5, requires, in part, that maintenance activities are performed and controlled within the boundaries of "Work Instructions" of MWOs and/or Procedures.

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Violation 97-02-02 and SNC Response

Contrary to the above, written procedures were not implemented in that:

1. On April 2, 1997, Sections 8.12 and 8.13 of procedure 30AC-OPS-001-0S were not correctly implemented. As a result, a clearance was restored in an incorrect sequence and resulted in an unplanned engineering safety features actuation for an inadvertent start of the 1B Emergency Diesel Generator.
2. On March 19, 1997, sections 4.2.2, 4.7.1, and 8.8.3 of procedure 30AC-OPS-001-0S were not correctly implemented. Craftsman removed the electrical motor driven actuator from valve 1P41-F313D, prior to the placement of electrical maintenance sub clearance 2-97-188. This resulted in maintenance activities being conducted on the valve actuator prior to an approved clearance being established.
3. On or before March 14, 1997, section 7.4.1 of procedure 17MS-MMS-002-0S and section 4.9 of procedure 50AC-MNT-001-0S were not correctly implemented. Maintenance Work Orders and Work Process Sheets were used for ongoing work activities associated with Design Control Request 94-047, absent Special Design Consideration instructions. The work instructions did not identify that restoration of the bolt holes was required to maintain the integrity of fire barriers. Specifically, bolt holes associated with the fire protection piping in the Unit 2 East Direct Current switchgear room, various control building walls, transformer room 2C/D, and the Unit 2 West Direct Current switchgear room were not correctly restored. This resulted in degraded fire barriers without the required compensatory actions being established.
4. On March 11, 1997, step 8.2.2.8 of procedure 40AC-ENG-003-0S and step 4.2.5 of procedure 50AC-MNT-001-0S were not correctly implemented. Craftsman performed work outside the work instructions while implementing Design Control Request 94-050, to install vent piping on the Unit 2 Reactor Building Chiller B. As a result the inservice chiller was rendered inoperable.

This is a Severity Level IV Violation (Supplement I) (Unit 2).

RESPONSE TO VIOLATION 97-02-02

Reason for the violation:

The cause of the first example of the Notice of Violation was personnel error. A licensed individual failed to adequately evaluate the status of the 1B emergency diesel generator when he established a sequence for returning the 2F 4160V emergency bus to service. The individual establishing the return-to-service sequence noted the 1B emergency diesel generator output breaker was racked out under clearance, and neither the 2A nor the 2B emergency diesel generator had started in previous similar evolutions performed earlier in the refueling outage. He concluded from these facts that initiation of the 1B emergency

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Violation 97-02-02 and SNC Response

diesel generator was not a concern. Therefore, he established an inappropriate restoration sequence in which control power to the emergency bus protection logic was restored prior to power being restored to the bus. When control power was restored with the bus de-energized, the protection logic sensed loss of power and started the 1B emergency diesel generator per design.

Contributing to this event was less than adequate procedural guidance on restoring a 4160V bus to operation. System operating procedure 34SO-R22-001-2S, "4160 VAC," addresses the sequence required to restore power to a de-energized bus. However, the procedure assumes that control power to protection relaying and logic is energized. Consequently, the procedure did not provide guidance for restoring power to the relaying and logic. Had the sequence been addressed in the procedure, personnel would have had guidance in establishing the restoration sequence.

The cause of the second example of the Notice of Violation was personnel error. Maintenance personnel failed to ensure that the active clearance on valve 1P41-F313D was adequate for the work to be performed in that the clearance which was obtained addressed only mechanical isolation, and neglected electrical isolation.

The cause of the third example of the Notice of Violation was personnel error. Personnel who initiated the work process sheet to cover the work activities associated with Design Change Request 94-047 did not recognize that bolt removal would degrade the fire barrier. Consequently, they did not provide sufficient instructions to ensure either the bolt holes were grouted as soon as the bolts were removed or the fire barrier was declared inoperable and a fire watch posted as required.

Contributing to this event was a less than adequate fire protection checklist. The checklist, which is used with all Maintenance Work Orders, contains questions regarding the work to be performed under the associated Maintenance Work Order. These questions are intended to aid the Maintenance Work Order initiator and reviewers in determining if the work impacts fire protection components or systems. However, the checklist did not contain any questions which would have prompted the initiator to indicate bolt removal may impact fire protection components or systems. Consequently, the checklist did not aid the Maintenance Work Order initiator or reviewers in recognizing bolt removal would degrade the fire barrier.

The cause of the fourth example of the Notice of Violation was personnel error. The foreman supervising workers installing chiller vent piping per Design Change Request 94-050 neither cautioned the workers concerning the boundaries beyond which they could not work nor did he caution them not to work on operating plant equipment. Consequently, the workers loosened a flange on the operating chiller in an effort to improve the fitup of a weld they were making on the vent piping. This allowed air to enter the operating chiller which then tripped on loss of negative pressure.

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Corrective steps which have been taken and the results achieved:

In response to the event described in the first example, the responsible person was counseled regarding the importance of attention to detail in the performance of system restorations.

In response to the event described in the second example, responsible personnel were counseled regarding their inappropriate actions. In addition, this event was addressed in Maintenance tool box meetings.

In response to the event described in the third example, involved personnel were counseled regarding the importance of ensuring all potential breaches of fire walls are identified and necessary compensatory actions taken. Also, Department Directive GM-97-08 was issued to plant personnel who initiate and review fire protection checklists used with Maintenance Work Orders to describe this event and reinforce the need to perform detailed screening of work orders for all potential fire protection impacts. The fire protection checklist was revised to aid personnel in identifying bolt removal as a breach of a fire barrier.

In response to the event described in the fourth example, the involved foreman was disciplined in accordance with the Positive Discipline Program regarding his failure to provide adequate supervision of the workers and to establish safe boundaries for work on operating equipment. The involved workers were coached concerning restricting their activities to those explicitly described on the Maintenance Work Order.

Corrective steps which will be taken to avoid further violations:

Plant procedures 34SO-R22-001-1S and 34SO-R22-001-2S, "4160 VAC," will be revised by August 1, 1997 to include guidance for the return to service of 4160V bus protection relaying and logic.

As previously stated in the response to Notice of Violation 97-01-01 (SNC letter HL-5372, dated April 21, 1997), Problem Solving Teams were initiated to address problems with recent personnel errors. Some of these teams have presented their recommendations to management. These recommendations, and other actions to improve personnel performance and procedure adherence, presently are under consideration by management. As previously committed, SNC will notify the NRC by June 30, 1997 of the additional actions to be taken.

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Date when full compliance will be achieved:

For the first example, full compliance was achieved on April 2, 1997 when 4160V emergency bus 2F was returned to service and the 1B emergency diesel generator was secured and restored to a standby condition.

For the second example, full compliance was achieved on March 19, 1997 when the appropriate circuit breaker was opened and the involved individual was added to the clearance.

For the third example, full compliance was achieved by March 13, 1997 when the bolt holes were grouted restoring the fire barriers to an operable status.

For the fourth example, full compliance was achieved by March 12, 1997 when the involved supervisor was counseled regarding his actions and the workers who were performing this task were coached concerning restricting their activities to those explicitly described on the Maintenance Work Order.

Enclosure 2

Edwin I. Hatch Nuclear Plant Violation 97-02-03 and SNC Response

VIOLATION 97-02-03

10 CFR 50.72 (b)(2)(ii), Four-hour reports, states in part that, the licensee shall notify the NRC as soon as practical and in all cases, within four hours of...any event or condition that results in a manual or automatic actuation of any engineered safety feature...

Contrary to the above, a four-hour reporting requirement was not met on March 25, 1997. During maintenance work activities to replace a bad relay coil on Unit 2, a technician accidentally grounded a jumper causing a partial Group 2 Engineered Safety Feature actuation for Containment Isolation, at 12:06 p.m. The required four hour NRC report was not made until 5:47 p.m.

This is a Severity Level IV Violation (Supplement I) (Unit 2).

RESPONSE TO VIOLATION 97-02-03

Reason for the violation:

The cause of the event described in the Notice of Violation was personnel error. The Unit 2 Shift Supervisor incorrectly determined the partial Group 2 Primary Containment Isolation System actuation following the grounding of a jumper in a main control room panel was not reportable. He failed to inform the Shift Operations Superintendent or on-call Nuclear Safety and Compliance personnel of his decision and did not seek additional advice before determining the actuation was not reportable. Consequently, the required notification was not made until the Shift Operations Superintendent became aware of the partial Group 2 Primary Containment Isolation System actuation approximately five and one-half hours after the event occurred.

Corrective steps which have been taken and the results achieved:

As a result of this event, the following actions were taken;

1. The involved Shift Supervisor was counseled regarding his failure to ensure a required report was made within the required time frame.

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Violation 97-02-03 and SNC Response

2. The Operations Manager issued a policy letter on April 3, 1997 specifying how such actuations are to be handled in the future. The policy requires the situation to be assessed fully, other knowledgeable personnel to be notified, and the event to be reported if there is doubt concerning reporting requirements.

Corrective steps which will be taken to avoid further violations:

No additional corrective actions to avoid further violations are necessary at this time.

Date when full compliance will be achieved:

Full compliance was achieved on March 25, 1997 when the event was reported as required by 10 CFR 50.72.

Enclosure 3

Edwin I. Hatch Nuclear Plant
Violation 97-02-05 and SNC Response

VIOLATION 97-02-05

10 CFR 50, Appendix B, Criterion IV, requires that measures shall be established to assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitably included or referenced in the documents for procurement of equipment.

The above requirement as implemented by the Edwin I. Hatch Nuclear Plant Quality Assurance Manual, section 4, Procurement Document Control, requires in part, that the Hatch Project shall establish measures to assure that applicable regulatory requirements, design bases, and other requirements necessary to assure adequate quality are suitably included or referenced in the documents for procurement of equipment.

Contrary to the above, as of March 26, 1997, measures did not assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality were suitably included or referenced in the documents for procurement of equipment, in that, Change Requests 18 and 19 to Blanket Purchase Order Number 6012598, for Units 1 and 2 Power Range Neutron Monitoring Parts, failed to include or reference design requirements.

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

RESPONSE TO VIOLATION 97-02-05

Reason for the violation:

The cause of the event described in the Notice of Violation was personnel error. The person who initiated Change Order Requests 18 (Unit 1 Power Range Neutron Monitoring system) and 19 (Unit 2 Power Range Neutron Monitoring system) to Purchase Order 6012598 failed to include the codes and standards listed in the Architect/Engineer's request for procurement.

Corrective steps which have been taken and the results achieved:

As a result of this event, the involved person was counseled regarding the need for attention to detail in ensuring quality requirements are incorporated correctly into purchase documents. Additionally, Change Order Requests incorporating the required codes and standards were issued to General Electric, the supplier of the Unit 1 and Unit 2

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Violation 97-02-05 and SNC Response

Power Range Neutron Monitoring systems. General Electric confirmed by letter dated April 8, 1997 that the Unit 1 and Unit 2 system hardware meets the requirements of the Change Order Requests.

Corrective steps which will be taken to avoid further violations:

No additional corrective actions to avoid further violations are necessary at this time.

Date when full compliance will be achieved:

Full compliance was achieved by April 8, 1997 when Change Order Requests incorporating the required codes and standards were issued to General Electric and General Electric confirmed the Power Range Neutron Monitoring system hardware met the requirements of the Change Order Requests.