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Docket Nos. 50-321
50-366

HL-4509

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 January 25, 1994, and according to the requirements of 10 CFR 2.201, Georgia Power Company (GPC) is providing the enclosed response to the Notice of Violation associated with Inspection Report 93-27. In the enclosure, a transcription of the NRC violation precedes GPC's response.

Sincerely,

J. T. Beckham, Jr.

JKB/cr

Enclosures:

1. Violation 93-27-01 and GPC Response
2. Violation 93-27-02 and GPC Response
3. Violation 93-27-03 and GPC Response

cc: *Georgia Power Company*

Mr. H. L. Sumner, Nuclear Plant General Manager
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.

Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Washington, D.C.

Mr. S. D. Ebnetter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

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Enclosure 1

Edwin I. Hatch Nuclear Plant
Violation 93-27-01 and GPC Response

VIOLATION 93-27-01

Criterion XVI of Appendix B of 10 CFR 50 requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective actions taken to preclude repetition.

Contrary to the above, as of December 1993, effective corrective actions had not been taken to correct conditions adverse to quality involving the Unit 2 reactor building stack flow rate indications. As a result, the accuracy of the calculated reactor building airborne radioactive effluent releases was reduced during some periods. Additionally, some offsite dose assessment methods were inadequate in that flow rates for the reactor building stack had not been correctly incorporated into the Safety Parameter Display System. The inaccurate flow rate conditions had been questioned by licensee personnel in 1990. In February, 1993, NRC inspectors identified deficient conditions involving the flow rate indications.

This is a Severity Level IV violation (Supplement 1).

This violation is applicable to Unit 2 only.

RESPONSE TO VIOLATION 93-27-01

Admission or denial of the violation:

The violation occurred as described in the Notice of Violation.

Reason for the violation:

The violation was caused by a lack of understanding of the NRC's concern related to the Reactor Building stack flow rate monitoring instrumentation inaccuracies, and a design error made by Architect/Engineer personnel. Contributing causes were unreliable instrumentation and indicated flow oscillations. Reactor building stack flow rate

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Violation 93-27-01 and GPC Response

monitoring instrumentation typically indicated flow rates higher than design air flow rates. Plant and Architect/Engineer personnel evaluating the flow rate monitoring instrumentation concentrated on resolving the large (greater than 20%) differences in the monitor readings in each stack, which they incorrectly assumed was the NRC's concern, rather than inaccurate indication of flow.

Involved personnel determined that a combination of the turbulent air flow in the stacks, the location of the flow probes, and the construction of the stacks caused the differences in the flow instrument readings. However, they did not fully address the consequences of measurement inaccuracies on effluent release calculations. As a result, personnel confined their efforts to finding a realistic acceptance criterion for the difference in the monitor readings, or eliminating the criterion altogether. They did not place the necessary emphasis on either obtaining accurate readings or quantifying the inaccuracies of the individual instruments such that the appropriate flow rates could be factored into the effluent release calculations.

Architect/Engineer personnel failed in their review of two temporary design change request packages to address an increase in the Reactor Building stack flow rates. These flow rates increased as a result of the temporary operation of fans in the turbine buildings per the two temporary design changes. The review of the temporary design change should have identified the need to change the default flow rate values used in the Safety Parameter Display System to address the increase in flow rates. Consequently, plant personnel did not take the necessary steps to account for the increased Reactor Building stack flow rates.

Corrective steps which have been taken and the results achieved:

The default flow rate values used in the Safety Parameter Display Systems for the Unit 1 and Unit 2 Reactor Building stacks have been revised. The default values for both a normal ventilation lineup and a lineup with the applicable secondary containment isolated were revised to account for the increased flow rates resulting from the temporary operation of the additional fans. This action was completed on 12/17/93.

The effects of inaccurately measured flow rates on effluent release rates have been evaluated. Because the indicated flow rates are normally higher than actual, the reported dose due to ground level releases has been higher than actual. Since the normal effluent releases are much less than allowed by the plant's Technical Specifications, the effect of inaccurate flow rates is judged to have been negligible. This conclusion is supported by the plant's Radiological Environmental Monitoring Program which measures actual dose received offsite.

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Violation 93-27-01 and GPC Response

Corrective steps which will be taken to avoid further violations:

The Unit 1 and Unit 2 reactor building stack flow rate recorders will be replaced to increase equipment reliability. A modification to the instrument loop will be tested to minimize indicated flow oscillations. This modification will be made permanent if the test is successful.

Reactor building stack flow rate trending will be performed to compare measured flow rates to expected flow rates. The results of the trending will be used to define a statistical basis for expected flow rate measurement uncertainties. Procedures will be revised as necessary to ensure flow rates used for offsite dose calculations are commensurate with expected flow rates.

Modifications to change the reactor building stack flow rate instrumentation for better accuracy will be evaluated, as necessary.

The appropriate Architect/Engineer procedures and departmental instructions will be reviewed to determine the need for enhancements. The procedures and/or departmental instructions will be revised as necessary.

The appropriate Architect/Engineer personnel who were responsible for the temporary design change error have been counseled.

Date when full compliance will be achieved:

All actions, including a decision whether or not to change the flow rate instrumentation, will be complete by 6/1/94. If necessary, the flow rate instrumentation will be modified by the end of the 1995 refueling outage for Unit 2 and the 1996 refueling outage for Unit 1.

Enclosure 2

Edwin I. Hatch Nuclear Plant
Violation 93-27-02 and GPC Response

VIOLATION 93-27-02

Hatch Unit 1 Technical Specifications (TS) 6.8.1a, require that written procedures be established, implemented, and maintained covering activities delineated in Appendix A of Regulatory Guide (RG) 1.33, Revision 2, February 1978.

RG 1.33, Appendix A, "Typical Procedures for Pressurized Water Reactors and Boiling Water Reactors," paragraph 6.u, recommends procedures for reactor trips. Paragraph 1.d recommends administrative procedures for procedural adherence.

Procedure 52AC-MGR-003-0S (sic): Preparation and Control of Procedures, step 5.3.2.2, requires that procedures be followed step by step in the order as written, unless the procedure specifically allows deviation.

Procedure 34AB-C71-001-1S: Scram Procedure, step 4.12, requires that the Main Steam Isolation Valves be closed when reactor water level increased to +100 inches, during recovery actions for a reactor event.

Contrary to the above, written procedures were not implemented in that on June 15, 1993, during performance of Procedure 34AB-C71-001-1S, step 4.12 was not completed.

This is a Severity Level IV violation (Supplement 1).

This violation is applicable to Unit 1 only.

RESPONSE TO VIOLATION 93-27-02

Admission or denial of the violation:

The violation occurred as described in the Notice of Violation.

Enclosure 2

Violation 93-27-02 and GPC Response

Reason for the violation:

The violation was caused by personnel error. The individual who directed that step 4.12 of plant procedure 34AB-C71-001-1S, "Scram Procedure," not be followed failed to comply with the requirements of administrative control procedure 10AC-MGR-003-0S, "Preparation and Control of Procedures." That is, he did not follow procedure 34AB-C71-001-1S step-by-step or first revise it as required by the existing administrative controls.

During automatic reactor shutdown recovery, the Operations Manager made a conscious decision not to close the Main Steam Isolation Valves based on the following factors:

- 1) Closing the valves would have complicated automatic reactor shutdown recovery in that the normal reactor feedwater and the Main Condenser would be unavailable,
- 2) At the time the action was considered, reactor water level had been accurately assessed and was decreasing, and
- 3) At the time the action was considered, water had already entered the main steam lines which the performance of the step was supposed to preclude.

The Operations Manager reviewed the situation with the Superintendent of Shift and the Shift Supervisor for the affected unit. After gaining concurrence from these individuals and determining that the action was warranted, he directed the operators to leave the Main Steam Isolation Valves in the open position.

Corrective steps which have been taken and the results achieved:

The responsible individual has been counseled regarding this event. Plant management has made known its expectation that procedures will be followed as written or else revised unless public health and safety are at risk.

Corrective steps which will be taken to avoid further violations:

No further corrective actions are necessary at this time.

Date when full compliance will be achieved:

Plant Hatch presently is in compliance with administrative control requirements regarding procedure adherence.

Enclosure 3

Edwin I. Hatch Nuclear Plant Violation 93-27-03 and GPC Response

VIOLATION 93-27-03

Criterion XI of Appendix B of 10 CFR 50, Test Control, requires that a testing program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program shall include operational tests during nuclear power plant operation, of structures, systems, and components.

Contrary to the above, adequate functional testing had not been performed for the standby gas treatment system relative humidity sensors since initial installation. The humidity sensors control electrical heaters which are important to the operation of the system under some design conditions. The available vendor information stated that the relative humidity sensors should be tested on a periodic basis.

This is a Severity Level IV violation (Supplement 1).

RESPONSE TO VIOLATION 93-27-03

Admission or denial of the violation:

The violation occurred as described in the Notice of Violation.

Reason for the violation:

The violation was caused by less than adequate vendor documentation. The Unit 1 Standby Gas Treatment (SBGT) system manual supplied by the system's vendor did not list any required testing of the humidity sensors in its section summarizing periodic maintenance activities for the entire system. The Unit 1 humidity sensors' vendor manual, located in the back of the system manual among other manuals for various SBGT system subcomponents, did contain a requirement to periodically test the sensors. However, this requirement was not contained in the periodic maintenance summary section of the system manual. Consequently, the need to periodically test the humidity sensors was overlooked and not included in the plant maintenance procedures for the Unit 1 SBGT system.

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Violation 93-27-03 and GPC Response

The Unit 2 SBGT system manual supplied by the system's vendor also did not list any required testing of the humidity sensors in its section summarizing periodic maintenance for the entire system. Furthermore, the Unit 2 humidity sensors' vendor manual included in the SBGT system manual did not contain this information. (The vendors for the Unit 1 and Unit 2 humidity sensors are different.) Because no written information was available to indicate the need for periodic sensor testing, none was included in the plant maintenance procedures for the Unit 2 SBGT system.

Corrective steps which have been taken and the results achieved:

Unit 1 SBGT system operating procedure 34SO-T46-001-1S, "Standby Gas Treatment System," was revised temporarily on 6/16/93 to require the heater control switches to be placed in the manual position. With these switches in the manual position, the heaters will energize when the SBGT system fans start, regardless of sensed humidity levels. This temporary procedure change has been made permanent.

Discussions with the vendor for the Unit 2 humidity sensors indicated that these sensors were similar in operation to the Unit 1 sensors and, therefore, needed to be tested periodically as well. Consequently, a temporary modification was implemented on the Unit 2 SBGT system on 6/24/93. A temporary modification was installed in the heater control logic such that the heaters will energize when the system fans start, regardless of sensed humidity levels. A temporary modification was necessary because the Unit 2 SBGT system heater control switches do not have a manual position.

These actions effectively removed the humidity sensors from the SBGT system heater control logic and, as a result, eliminated the need to test them.

Corrective steps which will be taken to avoid further violations:

Design Change Requests 93-051 and 93-052 will be implemented by 12/31/94 to remove the Unit 1 and Unit 2 SBGT system humidity sensors and controllers, and logically tie heater energization to fan start. The procedure change and temporary modification described previously will remain in effect until the respective unit's SBGT system heater control logic is modified per the applicable design change request.

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Violation 93-27-03 and GPC Response

Date when full compliance will be achieved:

Full compliance was achieved on Unit 1 on 6/16/93 when the SBGT system heater control switches were placed in the manual position per the temporary procedure change. Full compliance was achieved on Unit 2 on 6/24/93 when the temporary modification to the heater control logic was implemented. These actions eliminated the need to test the humidity sensors.