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Georgia Power

the southern electric system

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July 5, 1988

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

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
RESPONSE TO INSPECTION REPORT 87-31

Gentlemen:

In response to your letter of May 31, 1988, and in accordance with the provisions of 10 CFR 2.201, Georgia Power Company (GPC) is providing the enclosed response to the Notice of Violation associated with Inspection Report 87-31. A copy of this response is being provided to NRC Region II for review. In the enclosures, a transcription of the NRC violation precedes GPC's response.

As discussed with NRC personnel on June 29, 1988, there are some discrepancies between the NRC inspection report and the notice of violation. NRC personnel authorized a one week extension to the response to this notice of violation.

Should you have any questions in this regard, please contact this office at any time.

Sincerely,

W. G. Hairston, III
Senior Vice President

JJP/lg

Enclosures:

1. Violation 87-31-08 and GPC Response
2. Violation 87-31-07 and GPC Response

c: (see next page)

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c: Georgia Power Company

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ENCLOSURE 1

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
VIOLATION 87-31-08 AND GPC RESPONSE

VIOLATION 87-31-08

10 CFR 50.59 (b)(1) states that the licensee shall maintain records of changes in the facility and that these records must include a written safety evaluation which provides the bases for the determination that the change does not involve an unreviewed safety determination.

Contrary to the above, the safety evaluation for Design Change Request DCR 85-007, Revision 1 did not adequately detail the bases for determining that the addition of a 45 second delay timer relay to the Reactor Water Cleanup System (RWCU) valves 2G31-F001 and 2G31-F004 was not an unreviewed safety question. The determination did not consider the original design basis for the actuation or various failure modes, nor did it document any design basis accidents that were reviewed for impact, or other systems and components that could have been affected by the change. Additionally this change made these valves exceed the Technical Specification (TS) Table 3.3.2-3, required response time of 13 seconds.

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

RESPONSE TO VIOLATION 87-31-08

Admission or denial of violation:

The violation is respectfully denied.

ENCLOSURE 1 (Continued)

VIOLATION 87-31-08 AND GPC RESPONSE

Reason for the violation:

The following discussion presents GPC's beliefs as to why the violation is not applicable and is therefore denied.

As discussed with the NRC inspection personnel during the inspection, GPC disagrees with the violation. This disagreement is based on the following considerations:

1. The differential flow signals that cause valves 2G31-F001 and 2G31-F004 to close are installed for operational, rather than nuclear safety considerations. Specifically, the system is installed to limit the amount of leakage that would occur should a leak of significant magnitude occur in the low energy portions of the RWCU system. The time delay is installed to prevent spurious isolations of the valves.

Since the high differential flow isolation logic system does not perform a nuclear safety related function, the addition of a time delay or the changing of the amount of delay had no impact on the existing safety analysis.

2. The 13 second response time specified in Table 3.3.2-3 of the Technical Specifications is derived based on assumptions used in the safety analysis of the plant. Specifically, the 13 seconds is based on the emergency diesel generator start time.

Since the differential flow signal is not based on any plant nuclear safety analysis, it is obvious that the 13 second response time specified in Table 3.3.2-3 is not applicable to this function.

ENCLOSURE 1 (Continued)

VIOLATION 87-31-08 AND GPC RESPONSE

3. During the course of the inspection, GPC explained to the NRC inspectors that other signals are used to initiate protective actions to mitigate the consequences of the postulated accident (pipe break outside containment). These signals are RWCU system room temperature and differential temperature. The sensors utilized in detecting these conditions are tested for the 13 second response time.
4. Finally, as was discussed with the NRC inspectors during the course of the inspection, a time delay (albeit not 45 seconds) feature has been incorporated in the circuitry as part of the original design. Documentation of this is contained in the original (non-updated) Hatch Unit 2 FSAR (Figure 7.6-19). Additionally, the original approved Hatch Unit 2 Technical Specifications (specifically Tables 3.3.2-1 and 3.3.2-3) lists the differential flow function but not the time delay.

As part of GPC investigation of the proposed violation, plant personnel determined there is an apparent discrepancy in the violation itself. The original inspection report (dated March 1988) in section 3.4, discussed Design Change Request (DCR) 85-007. This DCR was for Unit 1 valves and did not involve any modifications to Unit 2. The DCR was developed to change the Unit 1 RWCU valve logic to be the same as the Unit 2 RWCU valve logic. (As previously stated, the Unit 2 valve logic had the 45 second time delay incorporated into it since the original FSAR.) Additionally, the NRC inspection report section 3.4, discussed events and Licensee Event Reports (LERs) that occurred primarily on Unit 1. The only time Unit 2 was discussed was when the Technical Specifications were reviewed and the events surrounding a request for relief from some Unit 2 Technical Specifications requirements were presented.

ENCLOSURE 1 (Continued)

VIOLATION 87-31-08 AND GPC RESPONSE

However, when the actual notice of violation was issued (in a letter dated May, 1988), the violation referred to DCR 85-007 (a Unit 1 DCR) and stated that this ". . . change made these valves exceed the Technical Specifications (TS) Table 3.3.2-3, required response time of 13 seconds."

The DCR (85-007) did not impact any Unit 2 valves because the DCR was written exclusively against Unit 1. Additionally, since the DCR was a Unit 1 DCR, there was no relationship to the Unit 2 Technical Specifications.

Based on the above information, the violation is respectfully denied.

Corrective steps which have been taken and the results achieved:

Since the violation is denied, no corrective steps are believed warranted at this time.

Corrective steps which will be taken to avoid further violations:

Since the violation is denied, no additional corrective steps are anticipated at this time.

Date when full compliance will be achieved:

Since the violation is denied, GPC believes it was always in full compliance with Federal regulations.

ENCLOSURE 2

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
VIOLATION 87-31-07 AND GPC RESPONSE

VIOLATION 87-31-07

10 CFR 50, Appendix B, Criterion XI; and the licensee's accepted Quality Assurance program, Final Safety Analysis Report (FSAR) Section 17.2.11, collectively require that appropriate tests be performed and documented to assure satisfactory performance of structures, systems, and components. The FSAR, Appendix A, commits to Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations), which endorses American National Standards Institute (ANSI) N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants. Section 5.2.7 of this standard requires that a suitable level of confidence in structures, systems, or components on which maintenance or modifications have been performed shall be attained by performance testing.

Contrary to the above, after maintenance was performed on RWCU System inboard isolation valve 1G31-F001 on December 25, 1984, adequate testing was not performed to ensure the valve would isolate on a high differential flow isolation actuation signal as required by TS in that, on January 5 and 10, 1985, the valve failed to close upon receiving this signal. In addition, post modification testing was not performed after installing a 45 second time delay relay in the RWCU system after performing Maintenance Work Order 1-85-401.

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

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ENCLOSURE 2 (Continued)

VIOLATION 87-31-07 AND GPC RESPONSE

RESPONSE TO VIOLATION 87-31-07

As presented in the body of your inspection report, this response will be in two parts for ease of discussion. Part A will address the issue of inadequate post maintenance testing. Part B will address the issue of failure to perform post modification testing.

PART A

Admission or denial of violation:

The violation is admitted. Post maintenance testing performed following Reactor Water Cleanup System (RWCU) isolations on 12/24/84 and 12/25/84 did not ensure that both RWCU primary containment isolation valves (1G31-F001 and 1G31-F004) would close on initiation of an RWCU high differential flow isolation signal.

Reason for the violation:

This violation occurred so far in the past that a conclusive root cause determination cannot be made. The most probable cause for this violation, however, is a lack of thorough investigation into the cause of the RWCU isolations on 12/24/84 and 12/25/84. It appears that had more complete research been performed following these isolations the event investigators would have noticed that the RWCU isolation logic was such that it would not have allowed a high differential flow signal to isolate both 1G31-F001 and 1G31-F004 unless both RWCU pumps were running.

Regardless of this lack of complete investigation, had a more comprehensive post maintenance functional test been performed (i.e. a complete instrumentation loop check versus simply calibrating the flow transmitter), the logic design deficiency may have been identified sooner and subsequent RWCU isolation avoided.

ENCLOSURE 2 (Continued)

VIOLATION 87-31-07 AND GPC RESPONSE

Corrective steps which have been taken and the results achieved:

Because of the age of the events in question (3 1/2 years) no specific corrective actions have been taken nor are any planned. The specific problem of the failure of both RWCU valves to isolate on a high differential flow signal was corrected by implementation of Design Change Request (DCR) 85-007, Rev. 1 on 1/12/85. This DCR changed the isolation logic such that both valves 1G31-F001 and 1G31-F004 will close on a high differential flow signal regardless of whether one, both or neither RWCU pump is in operation.

To address the broader issue, since 1984 Georgia Power Company has implemented written guidance to assist in event investigation and cause determination. This guidance is provided in procedures AG-MGR-27-0687N (Root Cause Determination) and AG-MGR-31-0787N (Event Investigation). Furthermore, the Work Planning and Control section has developed a matrix of work performed versus functional testing required to standardize methods of functional testing and to ensure that functional test requirements are consistent with the work performed.

Corrective steps which will be taken to avoid further violations:

No further corrective actions are anticipated at this time.

Date when full compliance will be achieved:

Full compliance was achieved on 1/12/85 with the implementation and functional testing of DCR 85-007, Rev. 1.

ENCLOSURE 2

VIOLATION 87-31-07 AND GPC RESPONSE

PART B

Admission or denial of violation:

The violation is respectfully denied. Post modification testing was performed after installing the 45 second time delay relay in the RWCU system high differential flow isolation logic.

Design Change Request (DCR) 85-007 Revision 1 was approved on 1/11/85. This DCR was written to modify the high differential flow isolation logic such that both RWCU primary containment isolation valves would close on receipt of high differential flow signal regardless of the operating status of the RWCU pumps. The design change was implemented on 1/11/85 and satisfactorily functionally tested in accordance with Maintenance Work Order (MWO) 1-85-426 on 1/12/85. The functional test for MWO 1-85-426 consisted of: calibration of the new Agastat time delay relays in accordance with plant procedure HNP-1-5261-1, RWCU System Differential Flow Instrument Functional Test and Calibration per procedure HNP-1-3501, RWCU Auto Isolation Logic System Functional Test per procedure HNP-1-3504, and DCR 85-007, Rev. 1 which verified that the isolation logic for valves 1G31-F001 and 1G31-F004 functioned properly.

Georgia Power Company believes that the post modification functional testing performed for DCR 85-007, Rev. 1 fully met the intent of ANCI 18.7, Section 5.2.7. It should be noted that the MWO (1-85-401) identified in the Notice of Violation did not, nor was it intended to, perform the final functional test for DCR 85-007, Rev. 1. As previously stated, functional testing was accomplished by MWO 1-85-426.

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ENCLOSURE 2 (Continued)

VIOLATION 87-31-07 AND GPC RESPONSE

Reason for the violation:

The violation did not occur.

Corrective steps which have been taken and the results achieved:

Since the violation is denied, no corrective actions have been taken.

Corrective steps which will be taken to avoid further violations:

Since the violation is denied, no correction actions are planned.

Date when full compliance will be achieved:

Georgia Power Company believes that Plant Hatch is and has always been in full compliance with all regulations relative to this issue.

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