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United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, D. C. 20555

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
ENFORCEMENT ACTION 81-57

Attention: Mr. Victor Stello, Jr.

Gentlemen:

Georgia Power Company hereby submits the following information in response to the Notice of Violation and Proposed Imposition of Civil Penalty for Plant Hatch Unit 2, dated July 28, 1981.

I. VIOLATIONS

A. Technical Specification 3.3.3 requires that the emergency core cooling system (ECCS) actuation instrumentation shown in Table 3.3.3-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.3-2 and with EMERGENCY CORE COOLING SYSTEM RESPONSE TIME as shown in Table 3.3.3-3.

Contrary to the above, the isolation valves for the high drywell pressure switches which provide input to actuate the ECCS were closed. Specifically, pressure switches 2E11-N011A thru D could not sense a change in drywell pressure as the panel isolation valves associated with these switches were shut and therefore the switches were not operable as required by Technical Specification 3.3.3. This condition existed between March 9, 1981 and March 23, 1981. The reactor was in operating condition from March 14 to March 23, 1981 requiring compliance with the above Technical Specification.

This is a Severity Level III violation (Supplement I). (Civil Penalty - $20,000).

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B. Technical Specification 6.8.1.a requires that written procedures be established, implemented and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix A.4. of the Regulatory Guide specifies procedures for control of safety-related systems. Hatch Nuclear Plant Procedure, HNP-2-1004, RPS/ECCS Instrument Valve Line-up, specifies that the panel isolation valves for the drywell pressure instruments be open prior to plant startup.

Contrary to the above, these valves were closed on March 9, 1981 during reactor shutdown and remained closed prior to plant startup and for ten days of plant operation from March 14 to 23, 1981.

This is a Severity Level III violation (Supplement I). (Civil Penalty - $20,000).

II. RESPONSE

A. Admission or denial of alleged violations:

Georgia Power Company admits that the valves were closed as stated above. We do not agree, however, that we have failed to establish, implement, and maintain written procedures as required by Technical Specification 6.8.1.a. The violation which occurred was, as stated below, a single instance of personnel error in following a procedure.

B. Reasons for the violations:

On March 9, 1981, Unit 2 was in cold shutdown and preparing for startup. Procedure HNP-2-1004 was performed, as required, to check the valve line-up associated with Reactor Protection System and ECCS instruments. When the instrument valves on panels 2H21-P004 and 2H21-P005 were checked, an instrument technician erroneously closed four panel isolation valves on each panel. These valves were located at the base of the instrument panels, below and behind other instrument valves. The technician reportedly examined the piping of the valves, noted the lines went through the floor, and erroneously concluded the valves were instrument drain valves and closed them. The technician did not read the valve tags which indicated they were panel isolation valves. Due to the location of the valves, the attached identification tags were difficult to read.

Regardless, closure of panel isolation valves was in violation of procedure HNP-2-1004.

Following the event on March 9, 1981, Unit 2 startup did not commence until March 14, 1981. Since the reactor was shutdown and the drywell was at ambient pressure during the time period March 9-14, 1981, no discrepancy was noted. On March 14, 1981, reactor power was raised and drywell pressure increased as expected due to normal heatup. Control room operators noted that the PRIMARY CONTAINMENT HIGH/LOW PRESSURE alarm had failed to clear when drywell pressure increased above the 0.1 psig (low) setpoint. A maintenance request was initiated on March 14, 1981 to check the low pressure alarm signal.

The subject drywell pressure instrument was subsequently functionally tested and calibrated in accordance with plant procedure; the maintenance request was completed.

On March 21, 1981, the Unit 2 drywell was vented and its internal pressure decreased to approximately 0 psig. This time the low pressure alarm failed to initiate at 0.1 psig. The control room operators prepared another maintenance request to investigate and repair the problem. The instrument was removed from service on March 23, 1981. Tests revealed the instrument to be functional and calibrated. Subsequent investigation led to the identification of closed instrument panel isolation valves. This was when identification of the inoperable condition of the drywell pressure switches occurred. The finding was immediately reported to the NRC.

C. Corrective steps which have been taken and results achieved:

1. Identification, Immediate Correction, and Reporting

   When the first closed isolation valve was identified, it was opened and further investigation identified three more panel isolation valves to be closed on the same instrument panel, and four panel isolation valves were closed on the other drywell pressure instrument panel. The discrepancy was

immediately reported to the shift supervisor and notification to NRC was made immediately according to procedure. The remaining seven valves were opened. Thereafter, procedure HNP-2-1004 was repeated to verify that all instrument panel isolation valves referenced in procedure HNP-2-1004 were properly positioned. No other valve position discrepancies were found.

2. Investigation of the Event

On the evening of March 23, 1981, Georgia Power Company formed a special audit team to investigate the incident; to determine the deficiencies which contributed to the event; and to make appropriate recommendations to preclude similar events. The special audit team membership was revised on March 25, 1981 to consist of General Office employees with expertise in management control systems, quality assurance, and training.

The investigation included reviews of the independent verification controls which assure proper safety-related system alignment; procedural controls which govern proper safety-related system operation; verification controls that assure proper safety-related system restoration following maintenance or testing; and verification and documentation controls which assure that operations personnel are cognizant of the current status of all safety-related equipment, control board switches, parameters, and alarms on each shift.

A number of findings and recommendations resulted from the special audit. All of the recommendations either have been or will be acted upon. The schedule for this action is presented in Section E of this report.

3. Training

Licensed and non-licensed employee training has been strengthened in the area of performing procedures that require step-by-step initials or checks. Affected employees have been instructed

as to why steps are initialed or checked and that one step should be initialed or checked before proceeding to other steps. This does not imply that one or more groups cannot be performing several steps at one time. Supervisors and foremen who review and sign off data sheets have been given instructions in the type of review that is expected.

The recommended training has been included in licensed and non-licensed employee training. Initially, the training was from the supervisor to the subordinate so that the employees can be trained in initials or checks in the shortest practical time.

4. Color Coding

Selected instrument valves were painted red for normally opened valves and green for normally closed valves. All NSSS instrument valves on both units are now color coded. This color coding is for guidance only, since the procedure is the controlling mechanism.

Instrument technicians, operators, mechanics, and electricians have received instructions in the significance of color coding. These instructions began last March through the supervisor to the subordinate.

Additionally, appropriate procedures contain in the narrative reference to the color coding of instrument valves. However, the color code will not be made a part of the valve line-up data sheets.

D. Corrective steps which will be taken to avoid future violations:

1. Procedure Modifications

Instrument valve numbers will be included in procedures that currently do not contain valve numbers so that employees can go directly from a procedure to a valve. The narrative of the procedure will consistently address independent verification and invoke the use of the proper data sheet in those procedures that do not presently do this.

The procedure data sheets that require independent verification will be made consistent in the method that independent verification is documented on the data sheet. In addition, a "Reviewed By" signature block will be provided on those data sheets requiring review by supervision.

2. Position Verification

If a valve is found in other than the desired position, the employee finding the mispositioned valve will notify the shift foreman or shift supervisor and will prepare a Deviation Report for review as provided for in plant procedures.

Whenever plant management or procedures require position verification of safety-related equipment, there will be two individuals to perform the verification with both initialling the steps. Currently independent verification is required for surveillance, calibration and maintenance by associated procedures. This will be extended to the valve line-up process and the procedures will so state this requirement.

In order to ensure correct identification of instrument valves, the tagging of instrument valves on NSSS instruments will be completed and maintained.

E. Date when full compliance will be achieved:

Items D.1 and D.2 will be completed by November 1, 1981.

REQUEST FOR RESCISSION OF PENALTY

Pursuant to 10 CFR 2.205, Georgia Power Company hereby requests that the proposed civil penalty be remitted in its entirety. This request is supported by the belief that potential consequences of the loss of the high drywell pressure safety signals were of relatively lesser significance in relationship to the violations contemplated in the Severity III category, that prompt and effective actions were taken when the violation was identified to correct the violation and prevent further occurrences of such violations, and that the imposition of a penalty is in the discretion of the NRC and that policy considerations prescribe exercise of discretion in this case.

First, the actual severity of this particular violation does not rise to that contemplated by Severity Level III. Although the situation was cause for concern, the diversity of safety protection incorporated in the design of HNP-2 provided a sufficient degree of safety margin. The determination of adequate safety margin is based on the basic design philosophy, as discussed in GE topical report NEDO-10189, "An Analysis of Functional Common-Mode Failures in GE BWR Protection and Control Instrumentation" which considered the possibility of loss of protection system input variables due to maintenance errors as well as other types of common-mode failures. Having functional and equipment diversity and using reasonable assumptions and prudent operator intervention, plant safety can be maintained.

The high drywell pressure instrumentation is one of several redundant sources of the reactor trip (scram) signal. With the loss of high drywell pressure instrumentation, automatic initiation of the Automatic Depressurization System (ADS) would not occur. However, no credit is taken for this scram signal in performing accident analysis. The ADS is designed for small break LOCA consideration. For the standard licensing analysis of the small break LOCA, as discussed in GE topical report NEDO-24708A, "Additional Information Required for NRC Staff Generic Report on BWRs", several conservative assumptions are made in analyzing this event. This analysis conservatively neglects scram signals generated by high drywell pressure and further assumes the reactor scrams and containment isolates on the low water level signal. For all cases analyzed, calculations demonstrate BWR protection in depth against small break LOCAs.

Second, Georgia Power Company identified and promptly corrected the violation, and immediately instituted actions which are intended to prevent the repetition of such errors. It is undisputed that Georgia Power Company discovered and identified the violation on its own, and upon discovery it promptly corrected and reported the violation to the NRC.

However, in Mr. Stello's cover letter (dated July 28, 1981) to the Notice of Violation, it is stated that Georgia Power Company "possessed information that should have enabled" earlier identification and correction of the problem. The implication is that Georgia Power Company should have acted differently than it did during the time

period in question. This position benefits from the experience of hindsight. When the events beginning on March 14, 1981 took place, from the perspective of the total operation of the plant, the actions taken in response to the failure of the alarm to clear were normal and proper. While a symptom of the closed valves was identified on March 14, it should be noted that the cause of the symptom was not necessarily immediately obvious. That is, the symptom could have been caused by many things. In this case, the technician felt that it was a symptom of an instrument malfunction and that he had initially repaired the problem. During the entire period, the control room operators took the proper actions and followed the routine review and correction process since the identified symptoms were not linked to a safety-related function.

A thorough review of the record indicates that Georgia Power Company acted properly and in good faith up to and including the actual discovery of the violations. The judgment after the fact, by the Office of Inspection and Enforcement, that proper actions, taken in good faith which ultimately led to the discovery and correction of a violation, were not taken do much to harm the incentives intended by this element of the interim enforcement policy (i.e., self identification and reporting). In addition, independent of the timeliness of identification, there is no question that when identified, the violation was promptly corrected and reported, all prior to NRC discovery.

The corrective and preventive actions are described in the response pursuant to 10 CFR 2.201, at paragraphs II.B., II.C., and II.D. of this letter. The good faith actions already undertaken by Georgia Power Company indicate that imposition of a monetary penalty in this case was unnecessary to encourage such action. The NRC Interim Enforcement Policy (45 Fed. Reg. 66756) provides that "Orders may be issued in lieu of . . . civil penalties" for various situations, including Severity III violations. By reason of Georgia Power Company's actions alone, and certainly when the actual relative severity of the violation is considered, the remission of any penalty and substitution by an Order confirming corrective action would be more appropriate.

Indeed, the NRC recently declined to assess a civil penalty for a Severity III violation which was characterized by the NRC as having "potential consequences . . . to the safety of the public (that) were

significant." (Letter from Region III Director James G. Keppler, dated June 12, 1981, to a Region III licensee.) The NRC exercised such discretion because "the Order by itself provides for adequate remedial measures as evidenced by the corrective actions" taken by the licensee since the event and was "adequate deterrent against future similar violations." The reasoning in that case is at least as applicable to the facts in this case.

Finally, it is believed that policy considerations militate against application of civil penalties in cases, such as this, where the licensee identifies and corrects violations prior to NRC intervention. Civil penalties are inappropriate in such cases, in that they simply constitute a penalty without accomplishing any additional deterrent effect. There is no incentive in such a policy for a licensee to be vigilant in discovering or correcting violations since the licensee will still face a significant civil penalty. Thus, such a policy is counterproductive to the goal of safety. It is recommended that the NRC exercise its discretion in this case not to impose a civil penalty to establish a policy in practice, perhaps initiated in the above referenced case, which more appropriately carries out the objectives of the Atomic Energy Act.

If you desire further discussion on the information provided herein, or if you would like a meeting to discuss this subject, please contact this office.

J. T. Beckham, Jr. states that he is Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company, and that to the best of his knowledge and belief the facts set forth in this letter are true.

GEORGIA POWER COMPANY

By: J T Beckham Jr
J. T. Beckham, Jr.

Sworn to and subscribed before me this 26th day of August, 1981.

Notary Public

Notary Public, Georgia, State at Large
My Commission Expires Sept. 20, 1983

LTG/mb

xc: M. Manry
R. F. Rogers,
J. P. O'Reilly