

Georgia Power Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 877-7279

J. T. Beckham, Jr.
Vice President - Nuclear
Hatch Project



July 30, 1996

Docket No. 50-321

HL-5212

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

Edwin I. Hatch Nuclear Plant - Unit 1
Post Accident Monitoring Instrumentation Report
Flood-Up Range Reactor Vessel Water Level Instrument
Inoperable for Greater Than 30 Days

Gentlemen:

In accordance with the requirements of Unit 1 Technical Specification 5.6.6, Georgia Power Company is submitting the enclosed report describing a flood-up range reactor vessel water level instrument which has been out of service for greater than 30 days.

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

Sincerely,

J. T. Beckham, Jr.

JKB/eb

Enclosure: Post Accident Monitoring Instrumentation Report, Flood-Up Range Reactor
Vessel Water Level Instrument Inoperable for Greater Than 30 days.

cc: (See next page.)

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cc: Georgia Power Company

Mr. H. L. Sumner, Jr., 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, Region iI

Mr. S. D. Ebnetter, Regional Administrator

Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

Enclosure

Edwin I. Hatch Nuclear Plant - Unit 1 Post Accident Monitoring Instrumentation Report Flood-Up Range Reactor Vessel Water Level Instrument Inoperable for Greater Than 30 Days

A. REQUIREMENT FOR REPORT

This report is required by Unit 1 Technical Specifications Limiting Condition for Operation 3.3.3.1, Required Action B.1. This action must be entered if the plant has less than the required number of operable post accident instrumentation channels for a period greater than 30 days. When 30 days have elapsed, the action requires that a report be submitted to the Nuclear Regulatory Commission within the following 14 days per Unit 1 Technical Specification 5.6.6 and 10 CFR 50.4. In this event, flood-up range reactor vessel water level instrument 1B21-R605, required by Unit 1 Technical Specifications Table 3.3.3.1-1, item 2.d, was inoperable for a period greater than 30 days. Therefore, this report is required.

B. DESCRIPTION OF EVENT

On 7/21/96 at 0738 EDT, Unit 1 was in the Run Mode at a power level of 2558 CMWT (100 percent rated thermal power). At that time, 30 days had elapsed since flood-up range reactor vessel water level instrument 1B21-R605 was declared inoperable. The instrument was declared inoperable because it was indicating a reactor water level approximately 29 to 30 inches higher than actual reactor water level as measured by other instruments.

C. CAUSE OF EVENT

This higher than actual indication appeared to be the result of a reduction in the instrument reference leg water level which was caused by a packing leak on the equalizing valve for the transmitter associated with 1B21-R605. This reduction of water level in the reference leg would cause a false high reactor water level indication.

The packing leak on the equalizing valve has been repaired. Condensation in the reference leg condensing pot was expected to refill the reference leg; however, proper instrument performance has not been re-established. Another potential action to restore accurate level indication to the instruments on the reference leg is to backfill the reference leg by injecting demineralized water. However, the instrument was not backfilled and returned to service within 30 days, as this activity poses a possibility for creating a plant transient since the 1B21-R605 instrument shares a variable leg with other instruments which input into the Reactor Protection System logic. During backfilling, pressure perturbations can occur, which would cause instruments to trip, resulting in an automatic reactor shutdown.

Enclosure

Post Accident Monitoring Instrumentation Report
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Inoperable for Greater Than Thirty Days

The subject instrument provides no active safety function. All automatic and manual safety functions related to reactor pressure vessel water level are provided by other redundant instruments. Also, turbine protection is provided by other redundant instrumentation. To preclude a possible transient, backfill of the reference leg will not be performed at this time, and instrument 1B21-R605 will be returned to service during the next outage of sufficient duration.

D. PLANT RESPONSE TO THIS EVENT

1. Preplanned Alternate Method: Reactor vessel water level instrument 1B21-R605 does not provide any automatic actuations of safety-related functions. This instrument is normally used to monitor reactor water level when level exceeds 60 inches above instrument zero (approximately 218 inches above the top of the active fuel). All automatic and manual safety functions are initiated by other redundant instrumentation used to monitor water level below the + 60-inch range. A water level above + 60 inches occurs only when the vessel is flooded, typically during refueling operations. A main turbine trip occurs automatically on signals generated by other redundant reactor water level instruments which are completely independent of 1B21-R605. Additionally, turbine trips on high vessel level are generated by these independent instruments for the High Pressure Coolant Injection System and the Reactor Core Isolation Cooling System turbines. Therefore, the preplanned alternate method of fulfilling the function of level instrument 1B21-R605 is to rely on the automatic trips generated by independent instrumentation.
2. Schedule for Restoring Instrumentation to Operate Status: This instrument will be backfilled and restored to operable status during the next outage of sufficient duration. The packing leak, which is believed to have contributed to this event, has been corrected by tightening the valve packing nut. Other actions needed to help assure the future availability of this instrument, such as ensuring proper operation of the condensing pot, will be determined during the next refueling outage when access to primary containment is possible.