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Georgia Power

the southern electric system

NED-84-578

November 6, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
REVISION OF PREVIOUS HPCI PRESSURE TRIP
TECHNICAL SPECIFICATION CHANGE PROPOSAL FOR ATIS

Gentlemen:

By letter dated October 18, 1984 (NED-84-539) Georgia Power Company (GPC) submitted revisions to the Analog Transmitter Trip System (ATIS) Technical Specification change proposed by our letter dated September 5, 1984 (NED-84-436). These revisions added proposed changes for two High Pressure Coolant Injection (HPCI) System Steam Line High Differential Pressure trip instruments (E41-N657 A, B) which were added to the ATIS installation scope following submittal of our September 5, 1984 letter.

The contents of one of the non-Technical Specification pages enclosed with our October 18, 1984 letter does not completely describe the process used to arrive at the instrument setpoint. In particular, the applicability of Regulatory Guide 1.105 needed clarification. Therefore, GPC has rewritten that particular page to prevent any confusion regarding the basis or the intent of the proposed change. The new revised page (No. 4-28a) is enclosed with this letter and should be used in place of the page of the same number which was enclosed with our October 18, 1984 letter.

This latest revision does not directly affect any of the proposed changed Technical Specification pages which GPC has previously submitted. Furthermore, the safety evaluations and significant hazard reviews submitted by the above-referenced letters are unaffected by this revision.

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Should you have any questions, please contact this office.

Very truly yours,

R. D. Baker

for L. T. Gicwa

CBS/mb

xc: J. T. Beckham, Jr.
H. C. Nix, Jr.
J. P. O'Reilly (NRC- Region II)
Senior Resident Inspector

5. HPCI steam line differential pressure - high (E41-N657A,B)

The purpose of this instrumentation is to detect HPCI steam line breaks and to isolate any such break to confine the resulting radioactivity release and limit the reactor inventory loss. The HELB analysis assumes that the HPCI turbine trips and the system isolates at 300 percent of rated flow. However, the HELB analysis is used for guillotine breaks which have flows several times higher than 300 percent of rated flow.

Initially, the setpoints were derived for this trip function using an analytical limit of 300 percent of rated flow using Regulatory Guide 1.105. The resulting setpoints resulted in an operability concern for GPC due to past experience with the HPCI system at Plant Hatch. Since the setpoints currently being used by the plant were historically known to provide for satisfactory system operation, a required analytical limit was derived from the Plant Hatch existing setpoints using Regulatory Guide 1.105 methodology. This analytical limit was 307 percent of rated flow.

An analysis was performed to assure the acceptability of the new analytical limit (307 percent of rated flow). It was determined that for extremely large breaks, the operation of this trip function is almost instantaneous and the difference in isolation time between 300 percent and 307 percent of rated flow is negligible. For smaller breaks where there may be a noticeable difference in time due to the new analytical limit, the leakage detection system (which is the primary protection for smaller breaks) still would provide adequate isolation with less inventory loss and less peak room temperature than the inventory loss and peak room temperature predicted in the HELB guillotine break case.

Using this technique, an allowable value of 303 percent of rated flow was developed.