



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NPF-5
GEORGIA POWER COMPANY, ET AL.

DOCKET NO. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT 2

1.0 INTRODUCTION

By letter dated October 5, 1990, Georgia Power Company, et al. (the licensee) proposed changes to the Technical Specifications (TSs) for the Edwin I. Hatch Nuclear Plant, Unit 2. The proposed changes to TSs 3.3.9.1 and Table 3.3.9.1-1 would achieve compliance with the Anticipated Transients Without Scram (ATWS) Rule 10 CFR 50.62; changes to Table 3.3.9.1-2 would reflect performance parameters of new equipment; and changes to Table 4.3.9.1-1 would reflect changes in the minimum frequency for instrument checks and minimum frequency for instrument functional tests.

2.0 EVALUATION

The following evaluation addresses the changes discussed above.

- (1) In Table 3.3.9.1-1, "ATWS Recirculation Pump Trip System Instrumentation," the required operable channels per trip system would be changed from "1" to "2" to provide for a two-out-of-two logic scheme. The Action Statements in TS 3.3.9.1 would be modified to allow continued plant operation with an inoperable channel placed in its trip condition.
- (2) In Table 3.3.9.1-2, "ATWS Recirculation Pump Trip System Instrumentation Setpoints", the allowable values would be changed to be consistent with the calculations performed for the new equipment.
- (3) In Table 4.3.9.1-1, the surveillance frequency of the channel check for the reactor pressure "ATWS Recirculation Pump Trip Actuation Instrumentation Surveillance Requirements" would be changed to once per shift and the surveillance frequency of the channel functional test for the reactor vessel water level and the reactor pressure instrument would be changed to once per month.

By letter dated October 19, 1988, the licensee committed to modify the recirculation pump trip (RPT) actuation logic to a two-out-of-two logic configuration from the existing one-out-of-two logic. The modified RPT design has two trip systems. Each trip system utilizes a redundant trip logic. The "two-out-of-two" reactor vessel water low-low (level 2) or "two-out-of-two" reactor vessel high pressure would trip both recirculation pumps.

The proposed TS change recognizes that, in the modified design, a channel can be placed in the tripped condition without causing an ATWS-RPT actuation. Action Statement b states that:

"With the number of OPERABLE channels one less than required by the Minimum OPERABLE Channels per Trip System requirement for one or both trip systems, place the inoperable channel in the tripped condition within 1 hour."

Action Statement c further clarifies that:

"With the number of OPERABLE channels two less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system and,

1. If the operable channels consist of one reactor vessel water level channel and one reactor vessel pressure channel, place both inoperable channels in the tripped condition within 1 hour.
2. If the inoperable channels include two reactor vessel water level channels or two reactor vessel pressure channels, declare the trip system inoperable."

The NRC staff finds that with two trip systems and each trip system utilizing a "two-out-of-two" actuation logic, tripping a channel will satisfy half of the logic, and a valid signal will cause a recirculation pump trip. Therefore, placing an inoperable channel in the tripped condition will not inhibit an ATWS-RPT actuation should an ATWS event occur. The proposed changes are consistent with the draft BWR Standard Technical Specifications (STSs) being implemented in the Improved Technical Specification Program.

With respect to the proposed change of the setpoint values in Table 3.3.9.1-2, the current practice in the BWR STSs and in the proposed Improved Technical Specifications for BWRs is to specify allowable values rather than analytical limits. The licensee proposed to change the ATWS-RPT vessel pressure and vessel water level trip settings in Table 3.3.9.1-2 to reflect the allowable value rather than the analytical limits. The allowable value is established from each analytical limit by accounting for instrument accuracy, calibration and drift uncertainties, as well as process measurement accuracy and primary element accuracy. The setpoint methodology used to make this conversion from analytical limits to allowable values was approved by the NRC in Amendment 39 to the Unit 2 TSs. The allowable values are consistent with the allowable values in the Emergency Core Cooling System (ECCS) instrumentation TSs.

The proposed changes require instrument channel check at a minimum frequency of once per shift and instrument functional tests at a minimum frequency of once per month. These checks and functional tests are more frequent than those now specified and, therefore, would provide equal or better assurance of system availability.

Based on our review of the licensee's submittals, the NRC staff finds that the proposed changes to the Hatch Unit 2 TS Section 3/4.3.9, "RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION," are consistent with the modified design that enhances the system's ability to respond and mitigate the consequences of an ATWS event. The modification and the proposed TS revision have no adverse impact on safety and do not pose an undue risk to public health and safety, and are, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

4.0 CONCLUSION

The Commission's proposed determination that the amendment involves no significant hazards consideration was published in the Federal Register (55 FR 53070) on December 26, 1990. The Commission consulted with the State of Georgia. No public comments were received, and the State of Georgia did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Kahtan N. Jabbour, PDII-3/DRP-1/II, NRR
Frank Rinaldi, PDII-3, DRP-1/II, NRR
Hulbert C. Li, SICB/DEST/NRR

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