

March 25, 1991

Docket No. 50-366

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Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P.O. Box 1295
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Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NPF-5 -
EDWIN I. HATCH NUCLEAR PLANT, UNIT 2 (TAC 77826)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 110 to Facility Operating License No. NPF-5 for the Edwin I. Hatch Nuclear Plant, Unit 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your letter dated October 5, 1990.

The amendment changes the Anticipated Transients Without Scram - Recirculation Pump Trip logic, trip settings, and surveillance frequencies.

A copy of the related Safety Evaluation is also enclosed. Notice of issuance of the amendment will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Kahtan N. Jabbour, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.110 to NPF-5
- 2. Safety Evaluation

cc w/enclosures:
See next page

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|------|-------------|-----------|-----------|-----------|----------|-----------|
| OFC | LA:PDII-3 | PM:PDII-3 | PM:PDII-3 | BC:ACB | OGC | DSM/m |
| NAME | B. Hairston | FRinaldi | KJabbour | SNewberry | S. Utter | D:PDII-3 |
| DATE | 2/25/91 | 2/25/91 | 2/16/91 | 2/27/91 | 3/17/91 | DMatthews |
| | | | | | | 3/18/91 |

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AMENDMENT NO.110 TO FACILITY OPERATING LICENSE NPF-5 - Edwin I. Hatch
Nuclear Plant, Unit 2

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Mr. W. G. Hairston, III
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Units Nos. 1 and 2

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

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
DOCKET NO. 50-366
EDWIN I. HATCH NUCLEAR PLANT, UNIT 2
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 110
License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 2 (the facility), Facility Operating License No. NPF-5 filed by Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated October 5, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-5 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B as revised through Amendment No. 110, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications

3. This license amendment is effective as of its date of issuance and shall be implemented prior to Unit 2 startup from the spring 1991 refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



for David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification Changes

Date of Issuance: March 25, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 110

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove Pages

3/4 3-66

3/4 3-67

3/4 3-68

3/4 3-69

Insert Pages

3/4 3-66

3/4 3-67

3/4 3-68

3/4 3-69

INSTRUMENTATION

3/4.3.9 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.9.1 The anticipated transient without scram recirculation pump trip (ATWS-RPT) system instrumentation channels shown in Table 3.3.9.1-1 shall be OPERABLE with their trip setpoints set consistent with values shown in the Trip Setpoint column of Table 3.3.9.1-2.

APPLICABILITY: OPERATIONAL CONDITION 1.

ACTION:

- a. With an ATWS recirculation pump trip system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.9.1-2, declare the channel inoperable until the channel is restored to OPERABLE status with the channel trip setpoint adjusted consistent with the Trip Setpoint value.
- b. 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.
- c. 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 inoperable 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.
- d. With one trip system inoperable, restore the inoperable trip system to OPERABLE status within 14 days or be in at least STARTUP within the next 6 hours.
- e. With both trip systems inoperable, restore at least one trip system to OPERABLE status within 1 hour or be in at least STARTUP within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.3.9.1.1 Each ATWS recirculation pump trip system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.9.1-1.

4.3.9.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

TABLE 3.3.2.1-1

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

| TRIP FUNCTION | MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM |
|--|---|
| 1. Reactor Vessel Water Level - Low low, Level 2 | 2 |
| 2. Reactor Vessel Pressure - High | 2 |

TABLE 3.3.9.1-2

AIMS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION SETPOINTS

| TRIP_FUNCTION | TRIP SETPOINT | ALLOWABLE VALUE |
|---|----------------|-----------------|
| 1. Reactor Vessel, Water level - Low low, level 2 | > -47 inches * | > -47 inches |
| 2. Reactor Vessel Pressure - High | < 1095 psia | < 1095 psia |

* See Bases Figure B3/4 3-1.

TABLE 4.3.9.1-1
ATWS RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

| <u>TRIP FUNCTION</u> | <u>CHANNEL CHECK</u> | <u>CHANNEL FUNCTIONAL TEST</u> | <u>CHANNEL CALIBRATION</u> |
|---|----------------------|--------------------------------|----------------------------|
| 1. Reactor Vessel Water Level - Low Low, Level 2 | S | M | R |
| 2. Reactor Vessel Pressure - High | S | M | R |



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 trip 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-I/II, NRR
Frank Rinaldi, PDII-3, DRP-I/II, NRR
Hulbert C. Li, SICB/DEST/NRR

Dated: March 25, 1991