

REGULATORY DOCKET FILE COPY

AUGUST 14 1979

Docket No. 50-321

Mr. Charles F. Whitmer
Vice President - Engineering
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Whitmer:

The Commission has issued the enclosed Amendment No. 70 to Facility Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant Unit No. 1. The amendment consists of changes to the Technical Specifications which modify the Limiting Conditions for Operation and the Surveillance Requirements associated with the Reactor Protection System Power Supply to reflect the addition of redundant, Class 1E breakers on the output of each power supply. The amendment is in response to your application dated May 22, 1979 as supplemented by letters dated June 4 and 25, 1979.

The Technical Specifications, as issued, reflect your commitment (letter of June 25, 1979) to install protective breakers on the alternate supply and set the time delay to zero pending documentation and our approval of a time delay greater than the zero setting. These specifications were discussed with members of your staff and they agreed.

Copies of our Safety Evaluation and a Notice of Issuance are also enclosed.

Sincerely,

Original signed by

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:

1. Amendment No. 70 to DPR-57
2. Safety Evaluation
3. Notice

cc w/enclosures:
See page 2

*SEE PREVIOUS YELLOW FOR CONCURRENCES

See suggested changes in text of SER which were discussed with PM.
CP 160

OFFICE	ORB #3	ORB #3	AD:ORR	OEL	ORB #3
SURNAME	*PKreutzer	*DVerrelli	WGammill	PKreutzer	Tippolito
DATE	7/31/79	7/31/79	8/3/79	8/10/79	8/3/79

Docket No. 50-321

Mr. Charles F. Whitmer
Vice President - Engineering
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Whitmer:

Distribution

Docket	OI&E (5)
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NRC PDR	BHarless
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JMiller	
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PKreutzer	
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Atty, OELD	
WRussell	

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The Technical Specifications, as issued, reflect your commitment (letter of June 25, 1979) to install protective breakers on the alternate supply and (2) set the time delay to zero pending documentation and our approval of a time delay greater than the zero setting. These specifications were discussed with members of your staff and they agreed.

Copies of our Safety Evaluation and a Notice of Issuance are also enclosed.

Sincerely,

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

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/ /79

cc w/enclosures:

See	page 2	ORB #3	ORB #3	AD:ORP	OELD	ORB #3
OFFICE		PKreutzer	DVerrelli:mjf	WGammill		Tippolito
SURNAME		7/21/79	7/31/79	1/79	1/79	8/1/79
DATE						

Mr. Charles F. Whitmer
Georgia Power Company

- 2 -

August 14, 1979

cc:

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U. S. Environmental Protection
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345 Courtland Street, N. E.
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Baxley, Georgia 31513

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

GEORGIA POWER COMPANY
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION
MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA
CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 70
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Georgia Power Company, et al. (the licensee) dated May 22, 1979, as supplemented June 4 and 25, 1979, 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;
 - D. The issuance of this 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 amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 70, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 14, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 70

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Revise Appendix "A" as follows:

Remove pages 3.9-6a and 3.9-6b and replace with revised page 3.9-6a

3.9.D Electric Power Monitoring for the Reactor Protection System

Specifications:

1. When either of the RPS MG sets or the Alternate Source is in service, its power monitoring system shall be OPERABLE.
 - (a) If the power monitoring system is not OPERABLE and Operability cannot be restored within 30 minutes of discovery, remove the power supply from service immediately thereafter.
 - (b) One channel of a power monitoring system may be inoperable, as necessary for test or maintenance, not to exceed 8 hours per month.

4.9.D Electric Power Monitoring for Reactor Protection System

Specifications:

1. The Electric Power Monitoring for the Reactor Protection System shall be demonstrated operable:
 - (a) At least once per 6 months by performing a FUNCTIONAL TEST,
 - (b) At least once per operating cycle by demonstrating the OPERABILITY of under-voltage, over-voltage and under-frequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic and output circuit breakers and verifying the following setpoints:
 - (1) Over-voltage ≤ 132 VAC,
 - (2) Under-voltage ≥ 108 VAC, with time delay relay set to zero*
 - (3) Under-frequency ≥ 57 Hz, with time delay relay set to zero*

*Pending NRC approval of different value.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NO. DPR-57
GEORGIA POWER COMPANY
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION
MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA
CITY OF DALTON, GEORGIA
EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1
DOCKET NO. 50-321

Introduction

By letter dated May 22, 1979 as supplemented by letters dated June 4 and 25, 1979, Georgia Power Company (licensee) proposed a change to the Technical Specifications appended to Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant Unit No. 1. The change would modify the Limiting Conditions for Operation and the Surveillance Requirements associated with the Reactor Protection System (RPS) Power Supply to reflect the addition of an electric power monitoring system on the output of each power supply. The actions taken by the licensee are directly related to the Commission's ORDER for modification of License and the Commission's interim EXEMPTION to certain requirements of General Design Criterion (GDC-2) of Appendix A to 10 CFR 50, both of which were issued on August 7, 1978.

Background

During review of Edwin I. Hatch 2 Operating License application, the staff questioned the capability of the Class 1E reactor trip system (and other Class 1E systems and components powered from the RPS power supply) to accommodate the effects of possible sustained abnormal voltage and frequency conditions from the non-Class 1E reactor trip system power supply. These abnormal conditions could be caused by possible, though unlikely, combinations of undetectable single failures and by the effects of earthquakes. These abnormal conditions could result in damage to the Class 1E systems and components with the attendant potential loss of capability to perform their intended safety function.

The specific concerns were in regard to conformance with GDC-2 (seismic capability) and GDC-21 (single failure). Since the design of the RPS power supply for Hatch Unit No. 1 was identical to Hatch Unit No. 2, the staff, on its own initiative, issued an Order for Modification of license and required periodic surveillance on the power supplies in order to allay, at least temporarily, the specific concerns with regard to single failures.

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Simultaneously, temporary Exemption to GDC-2 was granted until the next refueling outage to permit the licensee time to obtain and install equipment necessary to achieve full conformance with GDC-2. The basis for allowing such an exemption included consideration of: reported failures due to the seismic events which have been experienced; the unlikelihood of occurrence of the series of undetected failures which would lead to an unsafe condition; and the implementation of surveillance.

Evaluation

On January 10, 1979, the licensee met with the NRC to discuss the conceptual design of an electric power monitoring system. The licensee's formal submittal was dated May 22, 1979. Another meeting was held June 13, 1979. We have reviewed the design details of the licensee's proposal, including electrical drawings and equipment specifications that were provided.

The licensee has proposed to install an electric power monitoring system on each of the three sources of power for the RPS (i.e., M-G sets A and B, and the Alternate Source). Each system will consist of two identical and redundant channels. Each channel will include a power monitoring module and a breaker. When abnormal power is detected, the circuit breaker is tripped. Either channel independently protects the RPS from abnormal electric power.

Each power monitoring module will detect over-voltage, under-voltage, and under-frequency conditions. The under-voltage and under-frequency monitoring equipment includes time delay features, for which the licensee had proposed settings of 2.15 seconds and 2.25 seconds respectively. We indicated that this delay could not be allowed unless it was shown that no damage from abnormal power would result. The licensee has agreed to set all time delays to zero pending NRC approval of different value(s).

We find that the protection of the RPS is initiated automatically. This protection cannot be lost by any single component failure.

Each channel of the monitoring system is physically and electrically independent of any other channel. The equipment involved is seismically qualified as Category 1 in conformance to IEEE Standard 344-1975.

The design is testable and the licensee has proposed functional testing semi-annually and a calibration frequency of once every refueling outage. Such a frequency is the same as that approved for similar Class 1E equipment and has been determined to be adequate.

We have reviewed the Limiting Conditions for Operations specifications and the surveillance specifications and find them adequate.

We conclude that no single component failure can cause the RPS to be exposed to electric power of unacceptable quality such that safety related equipment connected to the RPS would not be protected from power which is outside their range of qualification. The equipment involved is qualified such that seismic events are not expected to lead to failures. In view of these considerations, we conclude that the proposed electric power monitoring systems are acceptable.

Environmental Considerations

We have determined that this amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves an action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR Section 51.5(d)(4) that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Dated: August 14, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-321GEORGIA POWER COMPANY, ET AL.NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 70 to Facility Operating License No. DPR-57 issued to Georgia Power Company, Oglethorpe Electric Membership Corporation, Municipal Electric Association of Georgia, and City of Dalton, Georgia, which revised Technical Specifications for operation of the Edwin I. Hatch Nuclear Plant, Unit No. 1, (the facility) located in Appling County, Georgia. The amendment is effective as of the date of issuance.

The amendment consists of changes to the Technical Specifications which modify the Limiting Conditions for Operation and the Surveillance Requirements associated with the Reactor Protection System Power Supply to reflect the addition of redundant, Class 1E breakers on the output of each power Supply.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.


The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

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Fur further details with respect to this action, see (1) the application for amendment dated May 22, 1979, as supplemented by letters dated June 4 and 25, 1979, (2) Amendment No. 70 to License No. DPR-57, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Appling County Library, Parker Street, Baxley, Georgia 31513. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 14th day of August 1979.

FOR THE NUCLEAR REGULATORY COMMISSION


Thomas A. Appolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors