

April 15, 1994

Docket Nos. 50-321  
and 50-366

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Mr. J. T. Beckham, Jr.  
Vice President - Plant Hatch  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Dear Mr. Beckham:

SUBJECT: ISSUANCE OF AMENDMENTS - EDWIN I. HATCH NUCLEAR PLANT,  
UNITS 1 AND 2 (TAC NOS. M87803 AND M87804)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 193 to Facility Operating License DPR-57 and Amendment No. 133 to Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated September 20, 1993.

The amendments revise the Units 1 and 2 Channel Functional Test frequency from quarterly to once per 18 months for the scram discharge volume float type level switches.

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

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

Enclosures:

1. Amendment No.193 to DPR-57
2. Amendment No.133 to NPF-5
3. Safety Evaluation

cc w/enclosures:  
See next page

OFFICE	PDII-3/LAB	PDII-3/PM	OTSB # 4460	OGC	PDII-3/D
NAME	L. BERRY	K. JABBOUR	CGRIMES	R Bachman	DMATTHEWS
DATE	3/21/94	3/23/94	3/25/94	4/1/94	4/15/94

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 15, 1994

Docket Nos. 50-321  
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Vice President - Plant Hatch  
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Sincerely,

*Kahtan N. Jabbour*

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

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See next page

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Georgia Power Company

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

GEORGIA POWER COMPANY  
OGLETHORPE POWER CORPORATION  
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA  
CITY OF DALTON, GEORGIA  
DOCKET NO. 50-321  
EDWIN I. HATCH NUCLEAR PLANT, UNIT 1  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 193  
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated September 20, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 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. DPR-57 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 193 , 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 within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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: April 15, 1994



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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. 133  
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 the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated September 20, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 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. 133, 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 within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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: April 15, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 193

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

AND

TO LICENSE AMENDMENT NO. 133

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.

	<u>Remove Pages</u>	<u>Insert Pages</u>
Unit 1	3.1-7 3.2-40	3.1-7 3.2-40
Unit 2	3/4 3-7 3/4 3-41	3/4 3-7 3/4 3-41



Table 4.1-1

**Reactor Protection System (RPS) Instrumentation Functional Test, Functional Test Minimum Frequency, and Calibration Minimum Frequency**

<u>Scram Number (e)</u>	<u>Source of Scram Trip Signal</u>	<u>Group (b)</u>	<u>Instrument Check Minimum Frequency</u>	<u>Instrument Functional Test Minimum Frequency (c)</u>	<u>Instrument Calibration Minimum Frequency</u>
1	Mode Switch in SHUTDOWN	A	NA	Once/Operating Cycle	Not Applicable
2	Manual Scram	A	NA	Once/week	Not Applicable
3	IRM High High Flux	C	D	Once/Week (e)(l)(n)	Once/Operating Cycle
	Inoperative	C	NA	Once/week (e)	NA
4	Reactor Vessel Steam Dome Pressure - High	D	S	Every 3 months	Once/Operating Cycle
5	Drywell Pressure - High	D	S	Every 3 months	Once/Operating Cycle
6	Reactor Vessel Water Level - Low (Level 3)	D	S	Every 3 months (g)	Once/Operating Cycle
7	Scram Discharge Volume High High Level				
	a. Float Switches	A	NA	Once/Operating Cycle	(h)
	b. Thermal Level Sensors	B	NA	Every 3 months	Once/Operating Cycle
8	APRM Fixed High-High Flux	B	S	Every 3 months (e)(l)	Once/Week (p),SA
	Inoperable	B	NA	Every 3 months (e)	NA
	Downscale	B	NA	Once/Week(e)	NA
	Flow Reference Simulated Thermal Power Monitor	B	S	Every 3 months (l)	Once/Week (p)(q), SA
	15% Flux	C	S	Once/Week during refueling (l)(m)(n)	Once/Week during refueling (l)(m)
9	LPRM	B	D	NA	Every 1000 Effective Full Power Hours

Table 4.2-7

Check, Functional Test, and Calibration Minimum Frequency for Neutron Monitoring Instrumentation Which Initiates Control Rod Blocks

Ref. No. (a)	Instrument	Instrument Check Minimum Frequency (b)	Instrument Functional Test Minimum Frequency (c)	Instrument Calibration Minimum Frequency (d)
1	<u>SOURCE RANGE MONITORS</u>			
	a. Detector not full in	NA	S/U <sup>(f)</sup> , W	NA
	b. Upscale	NA	S/U <sup>(f)</sup> , W	R
	c. Inoperative	NA	S/U <sup>(f)</sup> , W	NA
	d. Downscale	NA	S/U <sup>(f)</sup> , W	R
2	<u>INTERMEDIATE RANGE MONITORS</u>			
	a. Detector not full in	NA	S/U <sup>(f)</sup> , W <sup>(e)</sup>	NA
	b. Upscale	NA	S/U <sup>(f)</sup> , W <sup>(e)</sup>	R
	c. Inoperative	NA	S/U <sup>(f)</sup> , W <sup>(e)</sup>	NA
	d. Downscale	NA	S/U <sup>(f)</sup> , W <sup>(e)</sup>	R
3	<u>APRM</u>			
	a. Flow Referenced Simulated Thermal Power-Upscale	NA	S/U <sup>(f)</sup> , Q	R
	b. Inoperative	NA	S/U <sup>(f)</sup> , Q	NA
	c. Downscale	NA	S/U <sup>(f)</sup> , Q	R
	d. Neutron Flux - High, 12%	NA	S/U <sup>(f)</sup> , Q	R
4	<u>ROD BLOCK MONITOR</u>			
	a. Upscale	NA	S/U <sup>(f)</sup> , Q	R
	b. Inoperative	NA	S/U <sup>(f)</sup> , Q	NA
	c. Downscale	NA	S/U <sup>(f)</sup> , Q	R
5	<u>SCRAM DISCHARGE VOLUME</u>			
	a. Water Level-High	NA	R	R

Notes for Table 4.2-7

- a. The column titled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 4.2-7 and items in Table 3.2-7.
- b. Deleted.

**TABLE 4.3.1-1**  
**REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS**

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION <sup>1)</sup>	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. Intermediate Range Monitors:				
a. Neutron Flux - High	D	S <sub>R</sub> ( <sup>252</sup> Cf) W	R	2
b. Inoperative	NA	W	R NA	2, 4, 5 2, 3, 4, 5
2. Average Power Range Monitor:				
a. Neutron Flux - Upscale, 15%	S	S <sub>R</sub> ( <sup>252</sup> Cf), W <sup>1)</sup> W	S <sub>R</sub> ( <sup>252</sup> Cf), W <sup>1)</sup> W	2
b. Flow Referenced Simulated Thermal Power - Upscale	S	S <sub>R</sub> ( <sup>252</sup> Cf), Q	W <sup>1)</sup> , SA	5
c. Fixed Neutron Flux - Upscale, 118%	S	S <sub>R</sub> ( <sup>252</sup> Cf), Q	W <sup>1)</sup> , SA	1
d. Inoperative	NA	Q	NA	1, 2, 5
e. Downscale	NA	W	NA	1
f. LPRM	D	NA	1 <sup>1)</sup>	1, 2, 5
3. Reactor Vessel Steam Dome Pressure - High	S	Q	R	1, 2
4. Reactor Vessel Water Level - Low (Level 3)	S	Q	R	1, 2
5. Main Steam Line Isolation Valve - Closure	NA	Q	R	1
6. (Deleted)				
7. Drywell Pressure - High	S	Q	R	1, 2
8. Serum Discharge Volume Water Level - High				
a. Float Switches	NA	R	R <sup>1)</sup>	1, 2, 5
b. Thermal Level Switches	NA	Q	R	1, 2, 5

TABLE 4.3.5-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION<sup>(a)</sup></u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. APRM:				
a. Flow Referenced Simulated Thermal Power-Upscale	NA	S/U <sup>(b)</sup> , Q	R	1
b. Inoperative	NA	S/U <sup>(b)</sup> , Q	NA	1, 2, 5
c. Downscale	NA	S/U <sup>(b)</sup> , Q	R	1
d. Neutron Flux - High, 12%	NA	S/U <sup>(b)</sup> , Q	R	2, 5
2. Rod Block Monitor:				
a. Upscale	NA	S/U <sup>(b)</sup> , Q	R	1 <sup>(d)</sup>
b. Inoperative	NA	S/U <sup>(b)</sup> , Q	NA	1 <sup>(d)</sup>
c. Downscale	NA	S/U <sup>(b)</sup> , Q	R	1 <sup>(d)</sup>
3. Source Range Monitors:				
a. Detector not full in	NA	S/U <sup>(b)</sup> , W	NA	2, 5
b. Upscale	NA	S/U <sup>(b)</sup> , W	R	2, 5
c. Inoperative	NA	S/U <sup>(b)</sup> , W	NA	2, 5
d. Downscale	NA	S/U <sup>(b)</sup> , W	R	2, 5
4. Intermediate Range Monitors:				
a. Detector not full in	NA	S/U <sup>(b)</sup> , W <sup>(c)</sup>	NA	2, 5
b. Upscale	NA	S/U <sup>(b)</sup> , W <sup>(c)</sup>	R	2, 5
c. Inoperative	NA	S/U <sup>(b)</sup> , W <sup>(c)</sup>	NA	2, 5
d. Downscale	NA	S/U <sup>(b)</sup> , W <sup>(c)</sup>	R	2, 5
5. Scram Discharge Volume:				
a. Water Level-High	NA	R	R	1, 2, 5 <sup>(e)</sup>



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 193 TO FACILITY OPERATING LICENSE DPR-57  
AND AMENDMENT NO. 133 TO FACILITY OPERATING LICENSE NPF-5  
GEORGIA POWER COMPANY, ET AL.  
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated September 20, 1993, Georgia Power Company, et al. (GPC or the licensee), proposed license amendments to change the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The proposed changes would decrease the frequency of the channel functional test for the scram discharge volume (SDV) float type level switches from quarterly to once per 18 months. Specifically, the changes involve TS Table 4.1-1, Item 7a; Table 4.2-7, Item 5a; Table 4.3.1-1, Item 8a; and Table 4.3.5-1, Item 5a.

2.0 EVALUATION

On June 13, 1979, the licensee identified the failure of two SDV high level float switches during surveillance testing. A licensee investigation established that the float switches were crushed by excessive hydrodynamic forces in the SDV instrument volume. On October 19, 1979, Brunswick Unit 1 reported damage of SDV drain line from water hammer. Subsequently, on June 12, 1980, the NRC issued IE Bulletin 80-14, "Degradation of BWR Scram Discharge Volume Capability." In late 1984, the licensee carried out the necessary modifications to the SDV instrumentation system venting and added two thermal SDV level detectors, redundant to the two float level switches. The licensee also added one float switch to provide alarm in the control room and another float switch to block the control rod movement in the event of high SDV water level. Following these modifications, the licensee has not experienced any failure of the SDV float level switches. No other physical changes were made to systems or components that could make the plant more vulnerable to any accident previously evaluated in Chapters 14 and 15 of the Final Safety Analysis Reports for Hatch Units 1 and 2.

In September 1993, the General Electric Company completed an analysis of plant risk associated with extension of the SDV float switch channel functional test frequency from quarterly to once per 18 months. This analysis indicated that the frequency of failure to scram due to the SDV level switch test extension increases negligibly from 3.4E-10 per year to 1.53E-09 per year for the most limiting postulated SDV blockage.

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The licensee provided the following justifications to support the proposed TS changes:

- Plant Hatch has not experienced any float switch damage subsequent to the 1984 modifications that relieved the hydrodynamic forces present in the SDV.
- The two thermal level switches added in response to IE Bulletin 80-14 are redundant to the float level switches.
- The GE probabilistic risk analysis concluded that it was acceptable to extend the surveillance interval of the float type level switches from quarterly to once per 18 months due to the negligible increase in risk.
- The proposed change will result in a reduction of .5 person-rem of exposure per surveillance test or 5 man-rem total for two units over an 18-month period.

The staff has reviewed the licensee's submittal and agrees with the above justifications. Therefore, the staff concludes that the proposed TS changes to reduce the surveillance frequency of the scram discharge volume float switches are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 57852 dated October 27, 1993). Accordingly, the amendments meet 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 amendments.

## 5.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. Mazumdar

Date: April 15, 1994