# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001 April 27, 2001

Mr. H. L. Sumner, Jr. Vice President - Nuclear Hatch Project Southern Nuclear Operating Company, Inc. Post Office Box 1295 Birmingham, Alabama 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT 2 RE: ISSUANCE OF AMENDMENT

(TAC NO. MB1379)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 166 to Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Unit 2. The amendment consists of changes to the Technical Specifications in response to your application dated March 9, 2001.

The amendment revises the Technical Specifications only until the Fall 2001 refueling outage and allows Mode 2 (startup) operation with two operable intermediate range monitor channels per trip system.

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

Leonard N. Olshan, Senior Project Manager, Section 1 Project Directorate II Division of Licensing Project Management

Office of Nuclear Reactor Regulation

Docket No. 50-366

**Enclosures:** 

1. Amendment No. 166 to NPF-5

2. Safety Evaluation

cc w/encls: See next page

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Vice President - Nuclear
Hatch Project
Southern Nuclear Operating
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Post Office Box 1295
Birmingham, Alabama 35201-1295

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**Enclosures:** 

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Amendment No.
 Safety Evaluation

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cc w/encls: See next page

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to NPF-5

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## Edwin I. Hatch Nuclear Plant

cc:

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Resident Inspector Plant Hatch 11030 Hatch Parkway N. Baxley, Georgia 31531

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Chairman Appling County Commissioners County Courthouse Baxley, Georgia 31513

Mr. J. D. Woodard Executive Vice President Southern Nuclear Operating Company, Inc. P. O. Box 1295 Birmingham, Alabama 35201-1295

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Mr. L. M. Bergen Resident Manager Oglethorpe Power Corporation Edwin I. Hatch Nuclear Plant P. O. Box 2010 Baxley, Georgia 31515



# UNITED STATES NUCLEAR REGULATORY COMMISSION MASHNOTTH DIGITIST

# SOUTHERN NUCLEAR OPERATING COMPANY, INC.

**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. 166 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 Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated March 9, 2001, 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:

# (2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 166 are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Richard L. Emch, Jr., Chief, Section 1

& E Edwar for

Project Directorate II

Division of Licensing Project Management

Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: April 27, 2001

# ATTACHMENT TO LICENSE AMENDMENT NO. 166

# FACILITY OPERATING LICENSE NO. NPF-5

# **DOCKET NO. 50-366**

Replace the following page of the Appendix A Technical Specifications with the enclosed revised page. The revised page is identified by amendment number and contains vertical lines indicating the areas of change.

Remove	<u>Insert</u>
3.3-7	3.3-7

Table 3.3.1.1-1 (page 1 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
. Intermediate Range Monitor					
a: Neutron Flux - High	2	3(d)	G	SR 3.3.1.1.1 SR 3.3.1.1.4 SR 3.3.1.1.6 SR 3.3.1.1.7 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
	<sub>5</sub> (a)	3(d)	н	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.13 SR 3.3.1.1.15	≤ 120/125 divisions of full scale
b. Inop	2	3 <sup>(d)</sup>	G	SR 3.3.1.1.4 SR 3.3.1.1.15	NA
	5 <sup>(a)</sup>	3 <sup>(d)</sup>	н	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
<ol> <li>Average Power Range Monitor</li> </ol>					
a. Neutron Flux – High (Setdown)	2	3(c)	G	SR 3.3.1.1.1 SR 3.3.1.1.7 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 20% RTP
b. Simulated Thermal Power – High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 0.58 W + 58% RTP and ≤ 115.5% RTP(b)
c. Neutron Flux - High	1	3(c)	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.13	≤ 120% RTP
d. Inop	1,2	3 <sup>(c)</sup>	G	SR 3.3.1.1.10	NA
					(continued)

<sup>(</sup>a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

<sup>(</sup>b) 0.58 W + 58% - 0.58 AW RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."

<sup>(</sup>c) Each APRM channel provides inputs to both trip systems.

<sup>(</sup>d) Only two channels required per trip system until the Fall 2001 refueling outage, provided one channel is operable in each quadrant of the core and both the RWM and a second licensed operator verify compliance with the withdrawal sequence.



# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON DIC 2004 JULY

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE NPF-5 SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL. EDWIN I. HATCH NUCLEAR PLANT, UNIT 2

# **DOCKET NO. 50-366**

# 1.0 INTRODUCTION

By letter dated March 9, 2001, Southern Nuclear Operating Company, Inc. (Southern Nuclear, the licensee), et al., proposed a license amendment to change the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Unit 2. The proposal would change the TS only until the Fall 2001 refueling outage and would allow Mode 2 (startup) operation with two out of four, rather than three out of four, intermediate range monitor (IRM) channels required operable per trip system. The licensee is making this request because two IRM channels began exhibiting erratic behavior when the IRMs were retracted from the core following startup. Troubleshooting found that the problem is inside the drywell and would require a plant shutdown to identify and repair the problem. The licensee believes that a shutdown is not warranted for this condition. The licensee does not anticipate a shutdown prior to the Fall 2001 refueling outage. However, in the event of an unanticipated shutdown, restart would have to be delayed in order to correct the IRM problem. Thus, the licensee proposed the amendment to avoid shutting down the plant, or delaying restart from an unanticipated shutdown, in order to correct the IRM problem.

# 2.0 EVALUATION

The staff has reviewed the licensee's proposal by considering its effect on the safety function of the IRMs during Mode 2. The IRMs are instruments intended to provide neutron monitoring of the core in the range above that of the source range monitors and before the power range instruments are effective. The IRMs signal the operator of a reactivity event caused by some unexpected situation such as a misplaced assembly. Misplaced assemblies are not a concern during the period that this TS change would be in effect because any misplaced assemblies would have been already discovered during the startup for the current cycle before the IRM problem manifested itself. The licensee proposed compensatory measures to provide additional assurance that there will not be an unexpected reactivity event during startup. These compensatory measures, having a licensed operator confirm any rod movement and having the rod worth minimizer operable, have been incorporated into the TS by adding footnote (d) to Table 3.3.1.1-1. Based on the above, the staff concludes that the proposal to have two out of four operable IRM channels, with at least one operable channel per quadrant along with the compensatory measures, provides adequate assurance that the safety function of the IRMs will be maintained. Therefore, the proposed amendment is acceptable.

# 3.0 STATE CONSULTATION

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

# 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC 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 (66 FR 15768). 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.

# 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Ulses

Date: April 27, 2001