

April 1, 1999

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

SUBJECT: ISSUANCE OF AMENDMENTS - EDWIN I. HATCH NUCLEAR PLANT,
UNITS 1 AND 2 (TAC NOS. (TAC NOS. MA4353 AND MA4354)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 215 to Facility Operating License DPR-57 and Amendment No. 156 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 December 4, 1998.

The amendments make two changes to the TS. The first change revises the Unit 1 TS Section 2.1.1.2 to delete the footnote that specifies that the Safety Limit Minimum Critical Power Ratios are for Cycle 18 only. The second change revises the TS for both units by deleting Section 5.6.5.b.2) and incorporating Section 5.6.5.b.1) into Section 5.6.5.b.

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:

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

Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 215 to DPR-57
2. Amendment No. 156 to NPF-5
3. Safety Evaluation

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DOCUMENT NAME: G:\HATCH\4354AMD.WPD *See previous concurrence

OFFICE	PDII-1/PM	PDII-1/LA	OGC*	PDII/D*
NAME	L.OLSHAN:cn	CHAWES CMN	MYOUNG	H.BERKOW
DATE	4 / 1 /99	4 / 1 /99	3/26/99	3/31/99
COPY	YES NO	YES NO	YES NO	YES NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 1, 1999

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Vice President - Nuclear
Hatch Project
Southern Nuclear Operating
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The amendments make two changes to the TS. The first change revises the Unit 1 TS Section 2.1.1.2 to delete the footnote that specifies that the Safety Limit Minimum Critical Power Ratios are for Cycle 18 only. The second change revises the TS for both units by deleting Section 5.6.5.b.2) and incorporating Section 5.6.5.b.1) into Section 5.6.5.b.

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,

A handwritten signature in black ink, appearing to read "L. N. Olshan".

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

Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 215 to DPR-57
2. Amendment No. 156 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

Edwin I. Hatch Nuclear Plant

cc:

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

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. 215
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 Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated December 4, 1998, 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.

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

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. 215
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 Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated December 4, 1998, 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.

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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:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 215, 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Richard L. Emch, Jr.

Richard L. Emch, Jr., Section Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: April 1, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 215

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

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.

Remove Pages

2.0-1
5.0-19

Insert Pages

2.0-1
5.0-19

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be \leq 25% RTP.

2.1.1.2 With the reactor steam dome pressure \geq 785 psig and core flow \geq 10% rated core flow:

MCPR shall be \geq 1.10 for two recirculation loop operation or \geq 1.12 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System (RCS) Pressure SL

Reactor steam dome pressure shall be \leq 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed:

2.2.1 Within 1 hour, notify the NRC Operations Center, in accordance with 10 CFR 50.72.

2.2.2 Within 2 hours:

2.2.2.1 Restore compliance with all SLs; and

2.2.2.2 Insert all insertable control rods.

2.2.3 Within 24 hours, notify the plant manager, the corporate executive responsible for overall plant nuclear safety, and the offsite review committee.

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UNITED STATES
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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. 156
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. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated December 4, 1998, 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.

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1) The Average Planar Linear Heat Generation Rate for Specification 3.2.1.
 - 2) The Minimum Critical Power Ratio for Specification 3.2.2.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," (applicable amendment specified in the COLR).
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

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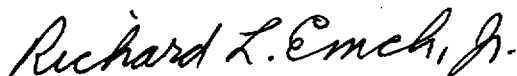
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-5 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No.156 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard L. Emch, Jr., Section Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: April 1, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 156

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

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

Remove Page

5.0-19

Insert Page

5.0-19

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1) The Average Planar Linear Heat Generation Rate for Specification 3.2.1.
 - 2) The Minimum Critical Power Ratio for Specification 3.2.2.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," (applicable amendment specified in the COLR).
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 215 TO FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NPF-5
SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL.
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated December 4, 1998, Southern Nuclear Operating Company, Inc. (Southern Nuclear, the licensee), et al., proposed license amendments to change the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The proposed changes would make two changes to the TS. The first change would revise Unit 1 TS Section 2.1.1.2 by deleting the footnote that specifies that the Safety Limit Minimum Critical Power Ratios (SLMCPR) are for Cycle 18 only. The second change would revise the TS for both units by deleting Section 5.6.5.b.1) and incorporating Section 5.6.5.b.1) into Section 5.6.5.b.

2.0 EVALUATION

By letter dated May 9, 1997, the licensee proposed a license amendment to revise the SLMCPR to reflect calculations specific to Unit 1 Cycle 18. The staff issued Amendment No. 209 on October 8, 1997, which revised the SLMCPR and added a footnote that stated that this SLMCPR applied only to Cycle 18.

In its letter dated December 4, 1998, the licensee described the methodology used to calculate the SLMCPR values for Cycle 19 operation. The Cycle 19 SLMCPR analysis was performed by General Electric Nuclear Energy (GENE) using Hatch Unit 1 plant- and cycle-specific fuel and core parameters, NRC approved methodologies including GESTAR II (NEDE-24011-P-A-13, Sections 1.1.5 and 1.2.5), NEDO-10958-A, January 1977, and the relevant information provided in Amendment 25 to GESTAR II, NEDE-24011, which was approved in a letter from Frank Akstulewicz, NRC, to Glen A. Watford, GE, dated March 11, 1999. Amendment 25 to GESTAR-II provides cycle-specific SLMCPRs that replace the former generic, bounding SLMCPR. The results show that the same SLMCPR values are applicable to both Cycle 19 and Cycle 18 operation. No change in SLMCPR values is required.

The staff has reviewed the following: (1) the justification for the SLMCPR value of 1.10 for two recirculation loop operation and 1.12 for single loop operation for Cycle 19, (2) the relevant information provided in Amendment 25 to GESTAR-II, NEDE-24011), and (3) the relevant information provided in NEDC-32601 (which is under the staff review) which provides the basis for the rounding technique used for the SLMCPR calculation. Based on our review of the submittal and the relevant portion of the topical reports, the staff has concluded that the

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Cycle 19 SLMCPR analysis for Hatch Unit 1 using the plant- and cycle-specific calculation in conjunction with the approved method is acceptable. The Cycle 19 SLMCPR will ensure that 99.9 percent of the fuel rods in the core will not experience boiling transition which satisfies the requirements of Generic Design Criterion 10 of Appendix A to 10 CFR Part 50 regarding acceptable fuel design limits. Therefore, the staff has concluded that the justification for analyzing and determining the SLMCPR value of 1.10 for two loop and 1.12 for single loop for Hatch Unit 1 Cycle 19 is acceptable since approved methodologies were used.

The March 11, 1999, Safety Evaluation (SE) related to Amendment 25 to NEDE-24011-P-A concludes that the methodology described in Amendment 25 is acceptable for determining cycle-specific values of the SLMCPR. These findings are applicable to Hatch. Based on the licensee's use of NRC-approved methodologies for determining the SLMCPR for Cycle 19 and future cycles of Hatch Unit 1, the staff concludes that it is acceptable to retain the same SLMCPR and delete the footnote. The use of the approved methodology (GESTAR II, as amended) will ensure that values for cycle-specific parameters are determined, such that applicable safety levels are met. If analyses for future cycles determine that the TS value of the SLMCPR is not bounding, the TS will be revised prior to the startup of that cycle.

In order to remove cycle-specific power distribution limits from the TS and put them in the Core Operating Limits Report (COLR), the licensee was required to include in the TS reference to NRC-approved methods that were used to develop these limits. Section 5.6.5.b.2) references an NRC SE that approved methods that were used to analyze Advanced Nuclear Fuels Lead Use Assemblies (ANF LUAs), because at the time that the COLR was approved for Hatch, both units had four of these ANF LUAs. Since Unit 1 and Unit 2 no longer contain these ANF LUAs, and the licensee does not plan to use these, the staff concludes that deletion of the reference and the SE Section 5.6.5.b.2 is acceptable. Since only one document remains in Section 5.6.5.b, the staff concludes that it is acceptable to delete "the following documents" and incorporate Section 5.6.5.b.1) into Section 5.6.5.b to accurately reflect the methodology in use at Hatch.

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. 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 (64 FR 4161 dated January 27, 1999). The amendments also change recordkeeping or reporting requirements. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (c)(10). 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: T. Huang

Date: April 1, 1999