October 4, 2007

Mr. Dennis R. Madison
Vice President - Hatch
Edwin I. Hatch Nuclear Plant
11028 Hatch Parkway North
Baxley, GA 31513

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, ISSUANCE OF AMENDMENTS REGARDING REFUELING INTERLOCKS (TAC NOS. MD4444 AND MD4445)

Dear Mr. Madison:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 253 to Renewed Facility Operating License DPR-57 and Amendment No. 197 to Renewed Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications for refueling interlocks in response to your application dated February 13, 2007.

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,

/RA/

Robert E. Martin, Sr. Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosures:
1. Amendment No. 253 to DPR-57
2. Amendment No. 197 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

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Package No. ML072410048 Amendment No. ML072410052
Tech Spec No. ML072820058

OFFICE	NRR/LPL2-1/PM	NRR/LPL2-1/LA	NRR/SRXB/BC	NRR/ITSB/BC	OGC	NRR/LPL2-1/BC
NAME	RMartin:nc	MO'Brien	GCranston, by memo dated	TKobetz	EWilliamson	EMarinos
DATE	9/6/07	9/6/07	8/15/07	10/1/07	9/12/07	10/3/07

OFFICIAL RECORD COPY

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 NO.1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 253
Renewed 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) Renewed Facility Operating License No. DPR-57 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 February 13, 2007, 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 Renewed 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. 253, 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

/RA/
Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-57
and the Technical Specifications

Date of Issuance: October 4, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 253

RENEWED FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the License and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
License	License
DPR-57 Page 4	DPR-57 Page 4
TSs	TSs
iii	iii
iv	iv
3.9-1	3.9-1
3.9-2	3.9-2
3.9-3	3.9-3
3.9-4	3.9-4
3.9-5	3.9-5
3.9-6	3.9-6
3.9-7	3.9-7
3.9-8	3.9-8
3.9-9	3.9-9
3.9-10	3.9-10
3.9-11	3.9-11
-------	3.9-12
B 3.9-3	B 3.9-3
B 3.9-4	B 3.9-4

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 NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 197
Renewed 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) Renewed 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 February 13, 2007, 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 Renewed 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. 197 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

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facililty
Operating License No. NPF-5
and the Technical Specifications

Date of Issuance: October 4, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 197

RENEWED FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the License and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
License	License
NPF-5 Page 4	NPF-5 Page 4
TSs	TSs
iv	iv
3.9-1	3.9-1
3.9-2	3.9-2
3.9-3	3.9-3
3.9-4	3.9-4
3.9-5	3.9-5
3.9-6	3.9-6
3.9-7	3.9-7
3.9-8	3.9-8
3.9-9	3.9-9
3.9-10	3.9-1-
3.9-11	3.9-11
-------	3.9-12
B 3.9-3	B 3.9-3
B 3.9-4	B 3.9-4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 253 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-57

AND

AMENDMENT NO. 197 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-5

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By application dated February 13, 2007, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML070530309), Southern Nuclear Operating Company, Inc. (Southern Nuclear, the licensee), requested changes to the Technical Specifications (TSs) for the Edwin I. Hatch Nuclear Plant, Unit Nos. 1 and 2 (HNP). The proposed changes would change the HNP TS Limiting Condition for Operation (LCO) 3.9.1, "Refueling Equipment Interlocks." Specifically, an alternate Required Action is being proposed if the refueling interlocks become inoperable. This new ACTION will safely permit continued fuel movement provided:

a) a continuous control rod (CR) withdrawal block is inserted to replace the conditional rod block provided by the interlocks and,

b) all the CRs in the core are verified to be fully inserted.

These changes are completely consistent with Condition A of LCO 3.9.1 of the existing BWR/4 Standard Technical Specifications (STS), NUREG-1433, Volume 1, Revision 3.0.

2.0 REGULATORY EVALUATION

The NRC staff based its review on the regulatory requirement in Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix A, General Design Criterion (GDC) 26, “Reactivity Control System Redundancy and Capability.” GDC 26 requires that the reactivity control system be capable of holding the reactor subcritical under cold conditions. The CRs serve the function of the reactivity control system and ensure that the core is kept subcritical when the core reactivity is being changed by fuel loading or CR withdrawals.

The refueling interlocks provide circuitry which, under certain conditions, initiate a control rod withdrawal block. Consequently, the requirements of General Design Criterion 26 are applicable to the control rods, insofar as it requires that reactivity control systems shall be capable of holding the reactor core subcritical under cold conditions. The proposed amendments are consistent with this requirement.

3.0 TECHNICAL EVALUATION

The refueling interlocks are designed to restrict the operation of the refueling equipment or the withdrawal of control rods to reinforce unit procedures that prevent prompt reactivity excursions and that prevent the reactor from achieving criticality during refueling. The interlock circuitry senses the conditions of the refueling equipment and the position of the control rods. Depending on these conditions, the interlocks actuate to prevent the operation of the refueling equipment or the control rods.

There are three types of refueling interlocks:

1) those that prevent control rod motion by causing rod blocks,

2) those that prevent the refueling platform from traveling over the core and,

3) those that prevent hoist operation.

The refueling interlocks will not allow fuel to be moved in or near the core unless all control rods are fully inserted. Additionally, they prevent the operation of loaded refueling equipment over the core when any control rod is withdrawn. The interlocks also prevent the withdrawal of any control rod when fuel is loaded on refueling equipment and operating over the core.

The refueling interlocks permit fuel movement to proceed without the need to have a control rod block in effect. Accordingly, the HNP TSs do not allow refueling to continue if the refueling interlocks are inoperable. However, alternate actions such as fully inserting all control rods and ensuring that a rod block is in effect will provide the same level of safety. The proposed TS change will allow the refueling interlocks to be inoperable and fuel movement to continue provided a continuous control rod withdrawal block is placed in effect, and all control rods are verified to be fully inserted. This will ensure that fuel loading will not occur with a control rod inappropriately withdrawn.

Actions are therefore proposed for LCO 3.9.1 in the TSs to provide an alternate method for ensuring that the reactor remains shutdown during the refueling process if the refueling interlocks become inoperable.

The proposed ACTIONS are as follows:

- LC0 ACTION 3.9.1.A.1 currently requires the suspension of fuel movements if a refueling interlock is inoperable. This remains unchanged.

- Proposed ACTION A.2.1 will state that, as an alternative to the suspension of fuel movements, a control rod block must be placed in effect.

- Proposed ACTION A.2.2 will require verification that all control rods are indeed fully inserted. This is in addition to the requirements to periodically verify the position of the control rods already in effect via Surveillance Requirement (SR) 3.9.3.1.

ACTIONS A.2.1 and A.2.2 also ensure that unacceptable operations are blocked (e.g., loading fuel into a cell with a withdrawn control rod).

These proposed changes are consistent with the current BWR/4 STS, NUREG-1433, Volume 1, Revision 3.0.

This change allows HNP to continue to safely perform fuel movements in the vessel should the interlocks become inoperable for any reason. Furthermore, the alternate actions of the proposed specifications will not allow rod withdrawal under any circumstances during fuel movement operations, and therefore, this proposed change provides a level of safety at least equivalent to the existing actions.

The staff concludes that, if all control rods are successfully verified to be at their full-in position, as Action A.2.1 will require, and all CRs are verified to be fully inserted, as Action A.2.2 will require, the proposed alternative actions A.2.1 and A.2.2 in LCO 3.9.1 will provide a safety protection equivalent to the currently existing Action A.1 for the refueling equipment interlocks. The staff's review considered that the proposed alternative actions provide flexibility in the event of unforseen equipment failure.

Based on the above review, the staff finds the proposed addition of Actions A.2.1 and A.2.2 to LCO 3.9.1 will assure that reactivity control during refueling operations will meet GDC 26 and is, therefore, acceptable.

4.0 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.

5.0 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 (72 FR 14308). 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.

6.0 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: M. Razzaque, DSS/SRXB

Date: October 4, 2007

Edwin I. Hatch Nuclear Plant, Units 1 & 2

cc:

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