

## **POLICY ISSUE NOTATION VOTE**

December 17, 2001

FOR: The Commissioners

FROM: William D. Travers  
Executive Director for Operations

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2, RENEWAL OF  
FULL-POWER OPERATING LICENSES

PURPOSE:

To inform the Commission of the results of the NRC staff's review of the license renewal application for the Edwin I. Hatch Nuclear Plant, Units 1 and 2 (Plant Hatch), submitted by Southern Nuclear Operating Company, Inc. (hereafter referred to as SNC or the applicant), and request that the Commission authorize the Director of NRR to make the appropriate findings and renew the operating licenses for Plant Hatch for an additional 20 years.

BACKGROUND:

By letter dated February 29, 2000 (Reference 1), SNC submitted its application to renew the operating licenses for Plant Hatch, in accordance with Title 10, Parts 51 and 54 of the *Code of Federal Regulations* (CFR). In its submittal, the applicant requested renewal of operating licenses DPR-57 for Unit 1 and NPF-5 for Unit 2, which were initially issued under Sections 104 and 103, respectively, of the Atomic Energy Act, for a period of 20 years beyond the current license expiration dates of midnight, August 6, 2014, for Unit 1, and midnight, June 13, 2018, for Unit 2.

Contact:  
William Burton, NRR  
415-2853

DISCUSSION:

The staff performed its safety review of the Plant Hatch license renewal application in accordance with 10 CFR Part 54, using guidance in NRR Office Letter 805, "License Renewal Application Review Process," and the draft "Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants," dated June 2000. NUREG-1803, "Safety Evaluation Report Related to the License Renewal of the Edwin I. Hatch Nuclear Plant, Units 1 and 2" (Reference 2), describes the results of the staff's review of the scoping and screening, aging management programs, and time-limited aging analyses, in accordance with the requirements of 10 CFR Part 54.

The Plant Hatch license renewal application included a supplement to the final safety analysis report (FSAR), as required by 10 CFR 54.21(d). The applicant subsequently revised the FSAR supplement in a letter dated September 5, 2001, which superceded the version contained in the application. The revised FSAR supplement contains a summary description of the programs and activities for managing the effects of aging and the evaluation of the time-limited aging analyses for the period of extended operation. The staff reviewed the revised FSAR supplement and found that it meets the requirements of 10 CFR 54.21(d). The attached proposed renewed licenses require that the applicant include the FSAR Supplement in the updated FSAR (UFSAR), which is scheduled for release in July 2002. Until the UFSAR update is complete, a condition in the proposed renewed licenses requires that any changes to the FSAR supplement be made in accordance with 10 CFR 50.59. This assures the NRC that these programs, maintenance activities, and inspection procedures will be adequately controlled.

The FSAR supplement also identifies future actions. Throughout NUREG-1803, the staff has described various schedules for future actions. These schedules reflect the staff's determination that the future actions are not required for operation during the existing license term; however, they are required to be completed before entering the period of extended operation to effectively manage aging. The proposed renewed licenses include license conditions for the completion of these future actions. The applicant can change the schedules for these actions without prior NRC approval, as long as the actions are completed in accordance with the license condition.

On the basis of its Safety Evaluation, as described in NUREG-1803, the staff reached the following conclusions, as provided in 10 CFR 54.29:

- (1) Actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require an aging management review under 10 CFR 54.21(a)(1).
- (2) Actions have been identified and have been or will be taken with respect to time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c).

Accordingly, the staff finds that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis for Plant Hatch.

To support the review of the applicant's license renewal application, Region II conducted three inspections. In accordance with Inspection Manual Chapter 2516, "Policy and Guidance for the License Renewal Inspection Programs," and Inspection Procedure 71002, "License Renewal Inspection." As described in the memorandum from Bruce S. Mallett, Acting Regional Administrator, NRC Region II, dated October 18, 2001 (Reference 3), the results of these three inspections verified that the applicant implemented the scoping and screening methodology and established aging management programs in conformance with the descriptions contained in the application for license renewal, and there is reasonable assurance that the applicant's aging management programs provide an adequate foundation for renewing the licenses for Plant Hatch for an additional 20 years.

Following issuance of the safety evaluation report (SER) with open items on October 5, 2001 (Reference 4), the staff and applicant briefed the Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Plant License Renewal on October 25, 2001, and the ACRS Full Committee on November 8, 2001, on the SER. On November 16, 2001, the ACRS issued its recommendation, "Report on the Safety Aspects of the License Renewal Application for the Edwin I. Hatch Nuclear Plant, Units 1 and 2." In its report (included in Section 5 of NUREG-1803, Reference 2), the ACRS recommended that the Commission should approve the application for license renewal, and concluded that the programs instituted to manage aging-related degradation are appropriate and provides reasonable assurance that Plant Hatch can be operated safely in accordance with its licensing bases for the period of extended operation without undue risk to the health and safety of the public.

The staff performed its environmental review of the Plant Hatch license renewal application in accordance with 10 CFR Part 51, using the guidelines described in the "Standard Review Plan for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal," NUREG-1555, Supplement 1, dated March 2000. On April 12, 2000, the staff published a Notice of Intent (65 FR 19797) to prepare an environmental impact statement (EIS) and conduct scoping, initiating a 60-day scoping period. The EIS, prepared by the staff for the plant-specific review, is a supplement to the Generic Environmental Impact Statement (GEIS), NUREG-1437, which was codified in 10 CFR Part 51 for license renewal. For Plant Hatch, the EIS is Supplement 4 to the GEIS (SEIS). Two public scoping meetings were held on May 10, 2000, in Vidalia, Georgia. The staff also visited Plant Hatch in May 2000, reviewed the comments received during scoping, as well as related documents, and consulted with Federal, State, and local agencies. On November 3, 2000, the staff issued a draft of the SEIS (Supplement 4 to NUREG-1437), which contained the preliminary results of the staff's evaluation and recommendation. With the publication of the Environmental Protection Agency Notice of Filing of the draft SEIS (65 FR 67358, November 9, 2000), the NRC initiated a 75-day public comment period on the preliminary results of the staff's review. During this comment period, two public meetings were held in Vidalia, Georgia, on December 12, 2000. During these meetings, the staff described the approach and results of the NRC's environmental review and answered questions to give members of the public information to assist them in formulating their comments. The comment period for the draft SEIS ended on January 24, 2001.

The staff evaluated the comments received on the draft SEIS and completed its analysis, considering and weighing the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and the alternatives available for reducing or avoiding adverse effects. The final version of the SEIS regarding Plant Hatch was issued on

May 31, 2001 (Reference 5). Disposition of the comments from members of the public is addressed in the SEIS. As discussed in Section 9.3 of the SEIS, the staff determined that, on the basis of (1) the analysis and findings in the "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants," NUREG-1437; (2) the Environmental Report submitted by the applicant; (3) consultation with other Federal, State, and local agencies; (4) the staff's own independent review; and (5) the staff's consideration of public comments, the adverse environmental impacts of license renewal for Plant Hatch are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable.

In accordance with 10 CFR 54.19(b), license renewal applications include "conforming changes to the standard indemnity agreement, 10 CFR 140.92, Appendix B, to account for the expiration term of the proposed renewed license." The staff intends to maintain the license numbers on issuance of the renewed licenses. Therefore, there is no need to make conforming changes to the indemnity agreement, and the requirements of 10 CFR 54.19(b) have been met.

Also, it should be noted that the antitrust conditions identified in the original operating license for Plant Hatch Unit 2 will be maintained during the period of extended operation.

As a result of the staff's review of the applicant's license renewal application, the staff recommends that the Commission authorize the Director of NRR to make the appropriate findings and, once he has made those findings, to issue renewed operating licenses for Plant Hatch for an additional 20 years of operation, in accordance with the attached renewed licenses.

#### COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections to its content. The Office of the Chief Financial Officer also has reviewed this paper for resource implications and has no objections to its content.

#### RECOMMENDATION:

On the basis of the above discussion, the NRC staff recommends that the Commission take the following actions:

- (1) Authorize the Director of NRR to renew the operating licenses for Plant Hatch, upon making the appropriate findings on safety and environmental matters.
- (2) Note that the staff will make any necessary conforming changes to the renewed licenses as a result of any pending licensing actions while the Commission is considering the staff's recommendations.

REFERENCES:

- (1) "Edwin I. Hatch Nuclear Plant License Renewal Application," February 29, 2000, Accession Number ML003688151
- (2) "Safety Evaluation Report Related to the License Renewal of the Edwin I. Hatch Nuclear Plant, Units 1 and 2," NUREG-1803 dated (TBD), Accession Number (TBD)
- (3) "Hatch Units 1 and 2 License Renewal Application," letter from Bruce S. Mallett to Samuel J. Collins, dated October 18, 2001, Accession Number ML012920057
- (4) "Safety Evaluation Report Related to the License Renewal of the Edwin I. Hatch Nuclear Plant, Units 1 and 2," dated October 5, 2001, Accession Numbers ML012780458 and ML012780459
- (5) "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 4, Regarding the Edwin I. Hatch Nuclear Plant, Units 1 and 2," Accession Number ML011420018

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William D. Travers  
Executive Director  
for Operations

Attachments: Renewed Licenses for Edwin I. Hatch Nuclear Plant, Units 1 and 2

**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 NO. 1

RENEWED FACILITY OPERATING LICENSE DPR-57

Renewed License No. DPR-57

1. The U.S. Nuclear Regulatory Commission (the Commission), having previously made the findings set forth in License No. DPR-57 issued on August 6, 1974<sup>1</sup>, has now reached the following findings:
  - A. The application to renew License No. DPR-57, filed by Southern Nuclear Operating Company, Inc., on behalf of Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, 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, and all required notifications to other agencies or bodies have been duly made.
  - B. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will

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1. Following the initial filing of the application for license, Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, became co-owners with Georgia Power Company (GPC) of the Edwin I. Hatch Nuclear Plant, Unit 1, and together are hereinafter referred to as the Owners.

continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the Edwin I. Hatch Nuclear Plant, Unit 1, and any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations.

- C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
  - D. There is reasonable assurance that (1) the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (2) such activities will be conducted in compliance with the rules and regulations of the Commission.
  - E. Southern Nuclear Operating Company, Inc.<sup>2</sup> (herein called Southern Nuclear), is technically qualified and, together, Southern Nuclear and the Owners are financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission.
  - F. The Owners have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations.
  - G. The renewal of this operating license will not be inimical to the common defense and security or the health and safety of the public.
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs, and considering available alternatives, the Commission concludes that the issuance of this Renewed Facility Operating License No. DPR-57 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
  - I. The receipt, possession, and use of source, byproduct, and special nuclear material, as authorized by this renewed license, will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
2. On the basis of the foregoing findings regarding this facility, Facility Operating License No. DPR-57, issued on October 13, 1974, is superseded by Renewed Facility Operating License No. DPR-57, which is hereby issued to Southern Nuclear Operating Company, Inc., and the Owners, to read as follows:

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2. Southern Nuclear Operating Company, Inc. succeeds Georgia Power Company as operator of the Edwin I. Hatch Nuclear Plant, Unit 1. Southern Nuclear is authorized by the Owners to exercise exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

- A. This renewed license applies to the Edwin I. Hatch Nuclear Plant, Unit No. 1, a direct-cycle, boiling-water reactor and associated equipment (the facility), owned by Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, and operated by Southern Nuclear. The facility is located 11 miles north of Baxley, in Appling County, Georgia, and is described in the Updated Final Safety Analysis Report, as supplemented and amended, and the Environmental Report, as supplemented and amended.
- B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the following:
- (1) Southern Nuclear, pursuant to Section 104b of the Act and 10 CFR Part 50, to possess, manage, use, maintain, and operate the facility at the designated location in Appling County, Georgia, in accordance with the procedures and limitations set forth in this renewed license
  - (2) Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, pursuant to Section 104b of the Act and 10 CFR Part 50, to possess, but not operate, the facility at the designated location in Appling County, Georgia, in accordance with the procedures and limitations set forth in this license
  - (3) Southern Nuclear, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended
  - (4) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and fission detectors in amounts as required
  - (5) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source or special nuclear material, without restriction to chemical or physical form, for sample analysis or instrument calibration, or associated with radioactive apparatus or components
  - (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain, and is subject to, the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady-state reactor core power levels not to exceed of 2,763 megawatts thermal.

(2) Technical Specifications

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

The Surveillance Requirement (SR) contained in the Appendix A Technical Specifications and listed below, is not required to be performed immediately upon implementation of Amendment No. 195. The SR listed below shall be successfully demonstrated before the time and condition specified:

SR 3.8.1.18 shall be successfully demonstrated at its next regularly scheduled performance

(3) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained in the updated Fire Hazards Analysis and Fire Protection Program for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, which was originally submitted by letter dated July 22, 1986. Southern Nuclear may make changes to the fire protection program without prior Commission approval only if the changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(4) Physical Protection

Southern Nuclear shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans are entitled "Edwin I. Hatch Physical Security Plan" (which contains Safeguards Information protected under 10 CFR 73.21), as revised; "Edwin I. Hatch Guard Training and Qualification Plan," as revised; and "Edwin I. Hatch Safeguards Contingency Plan," identified as Appendix D to the Physical Security Plan (which contains Safeguards Information protected under 10 CFR 73.21), as revised. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(5) FSAR Supplement

The licensee's Final Safety Analysis Report Supplement, dated September 5, 2001, shall be included in the next Updated Final Safety Evaluation Analysis Report update, required by 10 CFR 50.71(e).

(6) Safety Analysis Report

The licensee's Final Safety Analysis Report Supplement, dated September 5, 2001, submitted pursuant to 10 CFR 54.21(d), describes certain future inspection activities to be completed before the period of extended operation begins. The licensee shall complete those activities no later than August 6, 2014.

(7) Integrated Surveillance Program

The licensee shall implement a staff-approved reactor vessel integrated surveillance program for the extended period of operation which satisfies the requirements of 10 CFR Part 54. Such a program will be implemented through a staff-approved Boiling Water Reactor Vessel and Internals Project program or through a staff-approved plant-specific program. The plant specific program, if needed, will be developed in a manner that is consistent with other aging management programs, will include consideration of the 10 program attributes utilized for other aging management programs, and will provide a technical justification for any program attribute not covered by the plant-specific surveillance material testing program. The plant-specific program, if needed, will include the following actions:

- (a) Capsules will periodically be removed to determine the rate of embrittlement.

- (b) Capsules will be removed at neutron fluence levels that provide relevant data for assessing the integrity of the Plant Hatch, Unit 1 reactor pressure vessel (in particular, for the determination of reactor pressure vessel pressure-temperature limits through the period of extended operation).
- (c) Capsules will contain material to monitor the impact of irradiation on the Plant Hatch Unit 1 reactor pressure vessel and will contain dosimetry to monitor neutron fluence.

Before the renewal term begins, the licensee will notify the NRC of its decision to implement the integrated surveillance program or a plant-specific program, and provide the appropriate revisions to the Updated Final Safety Analysis Report Supplement summary descriptions of the vessel surveillance material testing program.

- D. Southern Nuclear shall not market or broker power or energy from Edwin I. Hatch Nuclear Plant, Unit 1.
3. This renewed license is effective as of the date of issuance and shall expire at midnight, August 6, 2034.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

Attachments:

Appendix A - Technical Specifications  
Appendix B - Environmental Protection Plan

Date of Issuance:

**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. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NPF-5

Renewed License No. NPF-5

1. The U.S. Nuclear Regulatory Commission (the Commission), having previously made the findings set forth in License No. NPF-5 issued on June 13, 1978, has now reached the following findings:
  - A. The application to renew License No. NPF-5, filed by Southern Nuclear Operating Company, Inc., on behalf of Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, 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, and all required notifications to other agencies or bodies have been duly made.
  - B. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the Edwin I. Hatch Nuclear Plant, Unit 2, and any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations.
  - C. The facility requires exemptions from certain requirements of (1) 10 CFR 50.55a(g)(2) and (2) Appendices G and H to 10 CFR Part 50. These exemptions are described in the safety evaluations supporting the granting of these exemptions, prepared by the NRC's Office of Nuclear Reactor Regulation, which were enclosed with the letter transmitting the original license, dated June

Renewed License No. NPF-5

13, 1978. These exemptions were granted. With these exemptions, the facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- D. There is reasonable assurance that (1) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (2) such activities will be conducted in compliance with the rules and regulations of the Commission.
  - E. Southern Nuclear Operating Company, Inc.<sup>1</sup> (herein called Southern Nuclear), is technically qualified and, together, Southern Nuclear and the Owners, are financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission.
  - F. The Owners have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations.
  - G. The renewal of this operating license will not be inimical to the common defense and security or to the health and safety of the public.
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs, and considering available alternatives, the Commission concludes that the issuance of this Renewed Facility Operating License No. NPF-5 subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
  - I. The receipt, possession, and use of source, byproduct, and special nuclear material, as authorized by this renewed license, will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
2. On the basis of the foregoing findings regarding this facility, Facility Operating License No. NPF-5, issued on June 13, 1978, is superseded by Renewed Facility Operating

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1. Southern Nuclear Operating Company, Inc. succeeds Georgia Power Company as operator of the Edwin I. Hatch Nuclear Plant, Unit 2. Southern Nuclear is authorized by the Owners to exercise exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

License No. NPF-5, which is hereby issued to Southern Nuclear Operating Company, Inc., and the Owners, to read as follows:

- A. This renewed license applies to the Edwin I. Hatch Nuclear Plant, Unit No. 2, a boiling-water reactor and associated equipment (the facility), owned by Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, and operated by Southern Nuclear. The facility is located in Appling County, Georgia, and is described in the Updated Final Safety Analysis Report, as supplemented and amended, and the Environmental Report, as supplemented and amended.
- B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the following:
- (1) Southern Nuclear, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, manage, use, maintain, and operate the facility at the designated location in Appling County, Georgia, in accordance with the procedures and limitations set forth in this renewed license
  - (2) Georgia Power Company, the Oglethorpe Power Corporation, the Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, but not operate, the facility at the designated location in Appling County, Georgia, in accordance with the procedures and limitations set forth in this license
  - (3) Southern Nuclear, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended
  - (4) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation, and radiation monitoring equipment calibration, and fission detectors in amounts as required
  - (5) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source or special nuclear material, without restriction to chemical or physical form, for sample analysis or instrument calibration, or associated with radioactive apparatus or components

- (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain, and is subject to, the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions<sup>2</sup> specified or incorporated below:

- (1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not to exceed of 2,763 megawatts thermal, in accordance with the conditions specified herein.

- (2) Technical Specifications

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

- (3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission.

- (a) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained in the updated Fire Hazards Analysis and Fire

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2. The original licensee authorized to possess, use, and operate the facility was Georgia Power Company (GPC). Consequently, certain historical references to GPC remain in certain license conditions.

Protection Program for the Edwin I. Hatch Nuclear Plant Units 1 and 2, which was originally submitted by letter from GPC to the Commission dated July 22, 1986. Southern Nuclear may make changes to the fire protection program without prior Commission approval only if the changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(b) Physical Protection

Southern Nuclear shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans are entitled "Edwin I. Hatch Physical Security Plan" (which contains Safeguards Information protected under 10 CFR 73.21), as revised; "Edwin I. Hatch Guard Training and Qualification Plan," as revised; and "Edwin I. Hatch Safeguards Contingency Plan," (which contains Safeguards Information protected under 10 CFR 73.21), as revised. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(c) FSAR Supplement

The licensee's Final Safety Analysis Report Supplement dated September 5, 2001, shall be included in the next Updated Final Safety Analysis Report update, required by 10 CFR 50.71(e).

(d) Safety Analysis Report

The licensee's Final Safety Analysis Report Supplement dated September 5, 2001, submitted pursuant to 10 CFR 54.21(d), describes certain future inspection activities to be completed before the period of extended operation begins. The licensee shall complete those activities no later than June 13, 2018.

(e) Integrated Surveillance Program

The licensee shall implement a staff-approved reactor vessel integrated surveillance program for the extended period of operation which satisfies the requirements of 10 CFR Part 54. Such a program will be implemented through a staff-approved Boiling Water Reactor Vessel Internals Project program or through a staff-approved plant-specific program. The plant-specific program, if needed, will be developed in a manner

consistent with other aging management programs, will include consideration of the 10 program attributes utilized for other aging management programs, and will provide a technical justification for any program attribute not covered by the plant-specific surveillance material testing program. The plant-specific program, if needed, will include the following actions:

- i. Capsules will periodically be removed to determine the rate of embrittlement.
- ii. Capsules will be removed at neutron fluence levels that provide relevant data for assessing the integrity of the Plant Hatch Unit 2 reactor pressure vessel (in particular, for the determination of reactor pressure vessel pressure-temperature limits through the period of extended operation).
- iii. Capsules will contain material to monitor the impact of irradiation on the Plant Hatch Unit 2 reactor pressure vessel and will contain dosimetry to monitor neutron fluence.

Before the renewal term begins, the licensee will notify the NRC of its decision to implement the integrated surveillance program or a plant-specific program, and provide the appropriate revisions to the Updated Final Safety Analysis Report Supplement summary descriptions of the vessel surveillance material testing program.

D. This renewed license is subject to the following antitrust conditions:

(1) As used herein:

- (a) "Entity" means any financially responsible person, private or public corporation, municipality, county, cooperative, association, joint stock association or business trust, owning, operating or proposing to own or operate equipment or facilities within the state of Georgia (other than Chatham, Effingham, Fannin, Towns and Union Counties) for the generation, transmission, or distribution of electricity, provided that, except for municipalities, counties, or rural electric cooperatives, "entity" is restricted to those which are or will be public utilities under the laws of the State of Georgia or under the laws of the United States, and are or will be providing retail electric service under a contract or rate schedule on file with and subject to the regulation of the Public Service Commission of the State of Georgia or any regulatory agency of the United States, and provided further, that as to municipalities, counties, or rural electric cooperatives, "entity" is

restricted to those which provide electricity to the public at retail within the State of Georgia (other than Chatham, Effingham, Fannin, Towns and Union Counties) or to responsible and legally qualified organizations of such municipalities, counties, and/or cooperatives in the State of Georgia (other than Chatham, Effingham, Fannin, Towns and Union Counties) to the extent they may bind their members.

- (b) "Power Company" means Georgia Power Company, any successor, assignee of this license, or assignee of all or substantially all of Georgia Power Company's assets, and any affiliate or subsidiary of Georgia Power Company to the extent it engages in the ownership of any bulk power supply generation or transmission resource in the State of Georgia (but specifically not including (1) flood rights and other land rights acquired in the State of Georgia incidental to hydroelectric generation facilities located in another state and (2) facilities located west of the thread of the stream on that part of the Chattahoochee River serving as the boundary between the states of Georgia and Alabama).
- (2) Power Company recognizes that it is often in the public interest for those engaging in bulk power supply and purchases to interconnect, coordinate for reliability and economy, and engage in bulk power supply transactions in order to increase interconnected system reliability and reduce the costs of electric power. Such arrangements must provide for Power Company's costs (including a reasonable return) in connection therewith and allow other participating entities full access to the benefits available from interconnected bulk power supply operations and must provide net benefits to Power Company. In entering into such arrangements neither Power Company nor any other participant should be required to violate the principles of sound engineering practice or forego a reasonably contemporaneous alternative arrangement with another, developed in good faith in arms length negotiations (but not including arrangements between Power Company and its affiliates or subsidiaries which impair entities' rights hereunder more than they would be impaired were such arrangements made in good faith between Power Company a non-affiliate or non-subsiary) which affords it greater benefits. Any such arrangement must provide for adequate notice and joint planning procedures consistent with sound engineering practice, and must relieve Power Company from obligations undertaken by it in the event such procedures are not followed by any participating entity.

Power Company recognizes that each entity may acquire some or all of its bulk power supply from sources other than Power Company.

In the implementation of the obligations stated in the succeeding paragraphs, Power Company and entities shall act in accordance with the foregoing principles, and these principles are conditions to each of Power Company's obligations herein undertaken.

- (3) Power Company shall interconnect with any entity which provides, or which has undertaken firm contractual obligations to provide, some or all of its bulk power supply from source other than Power Company on terms to be included in an interconnection agreement which shall provide for appropriate allocation of the costs of interconnection facilities; provided, however, that if an entity undertakes to negotiate such a firm contractual obligation, the Power Company shall, in good faith, negotiate with such entity concerning any proposed interconnection. Such interconnection agreement shall provide, without undue preference or discrimination, for the following, among other things, insofar as consistent with the operating necessities of Power Company's and any participating entity's systems:
  - (a) maintenance and coordination of reserves, including, where appropriate, the purchase and sale thereof,
  - (b) emergency support,
  - (c) maintenance support,
  - (d) economy energy exchanges,
  - (e) purchase and sale of firm and non-firm capacity and energy,
  - (f) economic dispatch of power resources within the State of Georgia, provided, however, that in no event shall such arrangements impose a higher percentage of reserve requirements on the participating entity than that maintained by Power Company for similar resources.
- (4) Power Company shall sell full requirements power to any entity. Power Company shall sell partial requirements power to any entity. Such sales shall be made pursuant to rates on file with the Federal Power Commission, or any successor regulatory agency, and subject to reasonable terms and conditions.
- (5) (a) Power Company shall transmit ("transmission service") bulk power over its system to any entity or entities with which it is interconnected, pursuant to rate schedules on file with the Federal Power Commission which will fully compensate Power Company for the use of its system, to the extent that such arrangements can be accommodated from a functional engineering standpoint

and to the extent that Power Company has surplus line capacity or reasonably available funds to finance new construction for this purpose. To the extent the entity or entities are able, they shall reciprocally provide transmission service to Power Company. Transmission service will be provided under this subparagraph for the delivery of power to an entity for its or its members' consumption and retail distribution or for casual resale to another entity for (1) its consumption or (2) its retail distribution. Nothing contained herein shall require the Power Company to transmit bulk power so as to have the effect of making the Tennessee Valley Authority ("TVA") or its distributors, directly or indirectly, a source of power supply outside the area determined by the TVA Board of Directors by resolution of May 16, 1966 to be the area for which the TVA or its distributors were the primary source of power supply on July 1, 1957, the date specified in the Revenue Bond Act of 1959, 16 USC 831 n-4.

- (b) Power Company shall transmit over its system from any entity or entities with which it is interconnected, pursuant to rate schedules on file with the Federal Power Commission which will fully compensate Power Company for the use of its system, bulk power which results from any such entity having excess capacity available from self-owned generating resources in the State of Georgia, to the extent such excess necessarily results from economic unit sizing or from failure to forecast load accurately or from such generating resources becoming operational earlier than the planned in-service date, to the extent that such arrangements can be accommodated from a functional engineering standpoint, and to the extent Power Company has surplus line capacity available.
- (6) Upon request, Power Company shall provide service to any entity purchasing partial requirements service, full requirements service or transmission service from Power Company at a delivery voltage appropriate for loads served by such entity, commensurate with Power Company's available transmission facilities. Sales of such service shall be made pursuant to rates on file with the Federal Power Commission or any successor regulatory agency, and subject to reasonable terms and conditions.
- (7) Upon reasonable notice, Power Company shall grant any entity the opportunity to purchase an appropriate share in the ownership of, or, at the option of the entity, to purchase an appropriate share of unit power from each of the following nuclear generating units at Power Company's costs, to the extent the same are constructed and operated: Hatch 2, Vogtle 1, Vogtle 2, and any other nuclear generating unit constructed by Power Company in the State of Georgia which, in the application filed

with USAEC or its successor agency, is scheduled for commercial operation prior to January 1, 1989.

An entity's request for a share must have regard for the economic size of such nuclear unit(s), for the entity's load size, growth and characteristics, and for demands upon Power Company's system from other entities and Power Company's retail customers, all in accordance with sound engineering practice. Executory agreements to accomplish the foregoing shall contain provisions reasonably specified by Power Company requiring the entity to consummate and pay for such purchase by an early date or dates certain. For purposes of this provision, "unit power" shall mean capacity and associated energy from a specified generating unit.

- (8) Southern Nuclear shall not market or broker power or energy from Edwin I. Hatch Nuclear Plant, Unit 2. Georgia Power Company shall continue to be responsible for compliance with the obligations imposed on it in its antitrust license conditions. Georgia Power Company is responsible and accountable for the actions of Southern Nuclear, to the extent that Southern Nuclear's actions may, in any way, contravene the existing antitrust license conditions.
- (9) To effect the foregoing conditions, the following steps shall be take
  - (a) Power Company shall file with the appropriate regulatory authorities and thereafter maintain in force as needed an appropriate transmission tariff available to any entity;
  - (b) Power Company shall file with the appropriate regulatory authorities and thereafter maintain in force as needed an appropriate partial requirements tariff available to any entity; Power Company shall have its liability limited to the partial requirements service actually contracted for and the entity shall be made responsible for the security of the bulk power supply resources acquired by the entity from sources other than the Power Company;
  - (c) Power Company shall amend the general terms and conditions of its current Federal Power Commission tariff and thereafter maintain in force as needed provisions to enable any entity to receive bulk power at transmission voltage at appropriate rates;
  - (d) Power Company shall not have the unilateral right to defeat the intended access by each entity to alternative sources of bulk power supply provided by the conditions to this license; but Power Company shall retain the right to seek regulatory approval of changes in its tariffs to the end that it be adequately compensated

for services it provides, specifically including, but not limited to, the provisions of Section 205 of the Federal Power Act;

- (e) Power Company shall use its best efforts to amend any outstanding contract to which it is a party that contains provisions which are inconsistent with the conditions of this license;
  - (f) Power Company affirms that no consents are or will become necessary from Power Company's parent, affiliates or subsidiaries to enable Power Company to carry out its obligations hereunder or to enable the entities to enjoy their rights hereunder;
  - (g) All provisions of these conditions shall be subject to and implemented in accordance with the laws of the United States and of the State of Georgia, as applicable, and with rules, regulations, and orders of agencies of both, as applicable.
- E. This renewed license is effective as of the date of issuance and shall expire at midnight, June 13, 2038.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

Attachments:

Appendix A - Technical Specifications  
Appendix B - Environmental Protection Plan

Date of Issuance: