

November 22, 2004

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, UNITS 1 AND 2, ISSUANCE OF
AMENDMENTS RE: LOSS OF OFFSITE POWER INSTRUMENTATION LOGIC
SYSTEM FUNCTIONAL TEST SURVEILLANCE (TAC NOS. MC3615 AND
MC3616)

Dear Mr. Sumner:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 243 to Renewed Facility Operating License DPR-57 and Amendment No. 186 to Renewed Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated June 22, 2004, as supplemented on September 27, 2004.

The amendments revise the frequency associated with Surveillance Requirement (SR) 3.3.8.1.4, which directs the performance of the logic system functional test, from once every 18 months to once every 24 months. The amendments change the SRs in Hatch, Units 1 and 2 Technical Specifications.

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/

Christopher Gratton, Sr. 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. 243 to DPR-57
2. Amendment No. 186 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession Number: ML043130556 (Package)

ADAMS Accession Number: ML043130555 (Amendment)

ADAMS Accession Number: ML043280655 (Technical Specifications) *SE dated 10/30/04

OFFICE	PDII-1/PM	PDII-1/LA (A)	EEIB/SC	OGC NLO w/comments	PDII-1/SC (A)
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DATE	11/09/04	11/19/04	10/30/04	11/15/04	11/19/04

OFFICIAL RECORD COPY

Edwin I. Hatch Nuclear Plant, Units 1 & 2

cc:

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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. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 243
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 June 22, 2004, as supplemented on September 27, 2004, 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. 243, 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

Mary Jane Ross-Lee, Acting Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: November 22, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 243

RENEWED FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

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

Remove

3.3-65
B 3.3-192

Insert

3.3-65
B 3.3-192

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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 186
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 June 22, 2004, as supplemented on September 27, 2004, 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. 186, 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

/RA/

Mary Jane Ross-Lee, Acting Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: November 22, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 186

RENEWED FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

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

Remove

3.3-65
B 3.3-193

Insert

3.3-65
B 3.3-193

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO
AMENDMENT NO. 243 TO RENEWED FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 186 TO RENEWED 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 to the U.S. Nuclear Regulatory Commission (NRC) dated June 22, 2004, as supplemented by letter dated September 27, 2004, Southern Nuclear Operating Company, the licensee for Edwin I. Hatch (Hatch), Units 1 and 2, submitted a request for license amendments to the Technical Specifications (TSs). The proposed change would revise Surveillance Requirement (SR) 3.3.8.1, LOP [Loss of Power] Instrumentation.” Specifically, the proposed change would decrease the surveillance frequency of SR 3.3.8.1.4, “Perform LOGIC SYSTEM FUNCTIONAL TEST [LSFT],” for LOP instrumentation from once every 18 months to once every 24 months. This proposed change is part of Hatch, Units 1 and 2, conversion to 24-month operating cycles from the previous 18-month operating cycles. The supplemental letter dated September 27, 2004, provided clarifying information that did not change the scope of the June 22, 2004, application nor the initial proposed no significant hazards consideration determination.

2.0 REGULATORY EVALUATION

The NRC staff applied the following regulatory requirements in its review of the application:

General Design Criterion (GDC) 17, “Electric power systems,” of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, “General Design Criteria for Nuclear Power Plants,” requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions

to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing. Section 50.36 of 10 CFR, "Technical Specifications," requires a licensee's TSs to establish SRs relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that the facility operation will be within safety limits, and that the limiting conditions for operation will be met.

3.0 TECHNICAL EVALUATION

The Hatch emergency power system for each unit consists of three emergency power distribution centers (or buses) that energize various emergency systems necessary for the mitigation of design-basis events, such as a loss-of-coolant accident (LOCA). Among the loads powered by these buses are the four low-pressure coolant injection pumps and the two core spray pumps that provide cooling water to the reactor pressure vessel in the event of a LOCA. Also powered are service water pumps that function to remove heat from the primary system during a LOCA.

At Hatch, the emergency buses are normally energized from the offsite power system. If offsite power is lost, power must be transferred to onsite emergency power, which consists of a diesel generator (DG) for each emergency bus. One of the emergency buses for each unit shares a DG. Therefore, each unit has two dedicated DGs and one shared DG. The function of the LOP instrumentation is to monitor the voltage on the emergency buses, and if necessary, initiate a transfer of the source of power for these buses from the offsite power supply to the onsite DGs. This is accomplished by either the loss of voltage or the degraded voltage function. The annunciation relays provide control room alarms to the operators of the low voltage condition.

If a LOCA were to occur concurrent with a loss-of-offsite power (LOOP) event, certain loads would be "shed" from the emergency buses. The DGs would then re-energize the buses and the cooling water pumps would be loaded onto the emergency buses to provide the necessary core and containment cooling in order to maintain the plant in a safe shutdown condition. The logic for the re-energization of the buses and the sequencing of the loads onto the re-energized buses is tested once per refueling cycle by a series of overlapping surveillances.

The purpose of SR 3.3.8.1.4, is to test the ability of the LOP relays to separate the buses from the lost offsite power supply and then connect the de-energized buses to the onsite DGs. The NRC staff previously approved changes to Hatch TS SR 3.8.1.9, which demonstrates the as-designed operation of the standby power sources during LOOP, and SR 3.8.1.17, which demonstrates the as-designed DG operation during a loss of offsite power actuation test signal in conjunction with an emergency core cooling system initiation signal, to allow testing frequencies of once every 24 months. The licensee stated that a change in testing frequency for SR 3.3.8.1.4 was not requested at that time because the results of its initial feasibility reviews for 24-month refueling cycles of the as-found test data for Westinghouse CV-7 relays, which are used for the LOP application, did not support decreasing the surveillance frequency. The licensee stated that the problems were attributed to relay setpoint drift. Consequently, the

licensee decided to maintain the once every 18 months testing frequency for SRs 3.3.8.1.3 and 3.3.8.1.4. Upon further evaluation, the licensee was able to determine that setpoint drifts do not affect the logic test (SR 3.3.8.1.4). The licensee stated that they are addressing the setpoint drift issue by performing the channel calibration (SR 3.3.8.1.3) every 12 months, which is more frequently than that required (18-month frequency).

As part of its June 22, 2004 submittal, the licensee provided a review of the test history for SR 3.3.8.1.4 at Hatch. The licensee's review of 23 previous tests identified that there were no failures of the LOP instrumentation to disconnect from the offsite sources and reconnect the bus to the onsite AC sources. The licensee did note that during three separate tests, the LOOP annunciator failed to initiate. The annunciator failure does not prevent the LOP relays from performing their safety functions.

In a facsimile dated August 30, 2004, the NRC staff requested additional information (RAI) from the licensee. In the RAI, the NRC staff requested that the licensee provide industry experience with respect to the performance of the LOP LSFT utilizing a 24-month testing frequency. In a letter dated September 27, 2004, the licensee stated that it had completed a survey of several nuclear units that have a 24-month LOP LSFT frequency and discovered no significant industry problems.

Since relay setpoint drift is not an issue with the performance of the LOP LSFT at Hatch and the results of the licensee's survey of industry operating experience discovered no significant safety issues, the NRC staff finds decreasing the surveillance frequency of the LSFT for LOP instrumentation (i.e., SR 3.3.8.1.4) from once every 18 months to once every 24 months is 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 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (69 FR 46592). 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. McConnell

Date: November 22, 2004