

February 22, 2002

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 RE: ISSUANCE OF
AMENDMENTS (TAC NOS. MB2886 AND MB2887)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 227 to Facility Operating License DPR-57 and Amendment No. 169 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 August 31, 2001, as supplemented by letters dated November 15, 2001, and February 21, 2002.

The amendments revise TS 3.8.1.B, on a one-time basis, to extend from 7 days to 14 days the Completion Time for the Required Actions associated with restoration of the inoperable 1B emergency diesel generator (DG). The August 31, 2001, application which requests extension of the Completion Times for all the DGs on a permanent basis is still under review, and the results of this review will be discussed in future correspondence.

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/

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. 227 to DPR-57
2. Amendment No. 169 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

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The amendments revise TS 3.8.1.B, on a one-time basis, to extend from 7 days to 14 days the Completion Time for the Required Actions associated with restoration of the inoperable 1B emergency diesel generator (DG). The August 31, 2001, application which requests extension of the Completion Times for all the DGs on a permanent basis is still under review, and the results of this review will be discussed in future correspondence.

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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 FACILITY OPERATING LICENSE

Amendment No. 227
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. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 31, 2001, as supplemented November 15, 2001, and February 21, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. 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. 227, 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/

Richard J. Laufer, Acting Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: February 22, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 227

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

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

Remove

3.8-3

Insert

3.8-3

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.169

License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 2 (the facility) Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 31, 2001, as supplemented November 15, 2001, and February 21, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 169, 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/

Richard J. Laufer, Acting Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: February 22, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 169

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

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

Remove

3.8-3

Insert

3.8-3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 227 TO FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 169 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 August 31, 2001, as supplemented by letters dated November 15, 2001, and February 21, 2002, 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 revise TS 3.8.1.B, on a one-time basis, to extend from 7 days to 14 days the Completion Time for the Required Actions associated with restoration of the 1B (swing) emergency diesel generator (EDG). The supplemental letters dated November 15, 2001, and February 21, 2002, provided clarifying information that did not expand the scope of the August 31 2001, application nor the initial proposed no significant hazards consideration determination.

The August 31, 2001, application requests extension of the Completion Times for all the EDGs on a permanent basis. However, the staff has not completed its review of this application; thus, the licensee, in its letter of February 21, 2002, requested the one-time change for only the 1B EDG. The staff will address the permanent change for all the EDGs in future correspondence.

2.0 BACKGROUND

On February 18, 2002, the 1B EDG was manually shutdown due to high crankcase pressure following the successful completion of the TS required 60 minute run (SR 3.8.1.2). Degradation of the 1B EDG was noted when the crankcase pressure remained greater than 0.5 inches of water (positive) for greater than one minute. Anticipating that the crankcase pressure would remain high, reaching one of the vendor's (Fairbanks Morse) criteria for manual shutdown, the operator shutdown the 1B EDG and it was declared inoperable as of 8:52 am (EST) on February 18, 2002. The 1B EDG last experienced preventative maintenance in May of 2000.

The degradation of the 1B EDG was first noted on November 28, 2001, when it tripped automatically on high crankcase pressure before the completion of its 24-hour run. Investigations and troubleshooting by plant Engineering, Maintenance and vendor (Fairbanks Morse) representatives revealed that the crankcase pressure was oscillating between 2.4 and 0.4 inches of water column vacuum. Ultimately, no mechanical condition was identified that would result in such fluctuations. The crankcase pressure trip is intended as an indicator of possible EDG degradation and is only in effect while testing the diesel. Consultations with the vendor confirmed that the high pressure condition did not indicate a severe degradation in

performance which would cause a loss of safety function and, as a result, the 1B EDG was subsequently declared operable but degraded on December 4, 2001. However, since the exact cause of the high crankcase pressure was unknown, testing of the 1B EDG was increased from monthly to weekly.

On February 18, 2002, Hatch Engineering and Maintenance personal immediately began working on the 1B EDG, and are presently working with Operations personal to obtain additional information that would be needed in determining the cause or causes for the degraded diesel operation and in performing the required maintenance. The licensee claims that this can only be accomplished with major corrective action which will require some disassembly of the 1B EDG. The licensee anticipates that the seven day required action statement will be exceeded before overhaul of the 1B EDG can be completed, hence, the licensee requested a one-time 7-day extension of the TS completion time (for a total completion time of 14 days from the time the 1B EDG was declared inoperable).

3.0 EVALUATION

Hatch, Units 1 and 2, has a total of five EDGs, two per unit and one shared. There are three 4160 volt Class 1E safety buses on each unit. Each unit's 4160 volt buses E and G have dedicated EDGs, A and C, respectively. The 4160 volt F bus on each unit share a common EDG. The logic is preselected to a particular plant unit to cover simultaneous undervoltage conditions on both 4160 volt F buses. This accounts for the dual unit loss of offsite power. If during dual unit F bus undervoltage or loss of offsite power, one plant unit also has a LOCA (loss-of-coolant accident) signal, the shared EDG will go to that unit. It should be noted that when the 1B EDG is removed from service the risk to both units increases, other factors being equal, by nominally the same amount.

The licensee performed a probabilistic safety analysis of the change in plant configuration accompanying the unavailability of the 1B EDG beginning February 18, 2002. The analysis was performed with the Hatch Equipment Out of Service system used for risk evaluation for Maintenance Rule purposes. Average maintenance probabilities are not included in the analysis; only equipment specified for evaluation is considered as out of service in the analysis. According to the licensee, no risk significant equipment is presently out of service for either unit. For the one-time 14-day allowed outage time (AOT) beginning February 18 (i.e., the current 7-day AOT plus the 7-day extension) the analysis results in an estimated incremental conditional core damage probability of 5.3E-08, and an incremental conditional large early release probability of 1.0E-07.

The licensee manages risk with a scheduling maintenance procedure. For this situation, proposed work activities were reviewed for the two weeks during which the 1B EDG is out of service. Certain maintenance activities which affected the availability of risk significant activities were rescheduled. For example, a Core Spray logic system functional test and a preventive maintenance on a residual heat removal pump was deferred. The licensee has developed a

list of equipment that should not be removed from service and has distributed it to Plant Dispatchers and Operations. Specifically, these systems are:

1R24S026, Diesel Generator Motor Control Center
Unit 1 / 2 Core Spray Pumps
Unit 1 / 2 A&C EDGs, EDG Batteries, Battery Chargers
Unit 1 / 2 Station Service Batteries, Battery Chargers
Unit 1 / 2 Reactor Building Closed Cooling Water Pumps
Unit 1 / 2 600 Volt CD Transformer
Unit 1 / 2 Startup Transformer C & D
Unit 1 / 2 Reactor Protection System Motor-Generator Sets
Main Control Room Air Conditioning Systems *
Unit 1 / 2 Station Service Air Compressor Closed Cooling Water Pumps
Unit 1 / 2 Low Pressure Coolant Injection path components
Main Control Room Purge Fans A & B
Unit 1 / 2 Control Rod Drive Pumps
Unit 1 / 2 High Pressure Coolant Injection
Unit 1 / 2 Reactor Core Isolation Cooling
Unit 1 / 2 Residual Heat Removal Service Water Pumps and Flow path
Unit 1 / 2 Shutdown Cooling Flow Path
Unit 1 / 2 Suppression Pool Cooling Flow Path
Unit 1 / 2 Plant Service Water Pumps

* One main control room (MCR) air conditioning unit was already out for corrective maintenance when the 1B EDG was declared inoperable. It was returned to service by the end of the day. Due to the redundancy of the MCR air-conditioning system, one air-conditioner out of service was not considered a high risk condition even with an EDG out of service.

According to the licensee, all emergency 4 kV busses are operable and available as are their normal and alternate power supplies, the 1D and 1C startup transformers, respectively. Also, they plan no work in the 230 kV switchyard that may increase the likelihood of a loss of offsite power event.

According to the licensee, although the cause of the problem has not been identified, a common cause failure affecting the other EDGs is not likely for the following reasons:

1. The Unit 2 EDGs and the remaining Unit 1 EDGs were run successfully at the higher loads within the last 5 months and within the last 18 months, respectively; and
2. Major EDG components were replaced in the early 1990s on all five EDGs, with the series-conversion (re-routing of turbo-charger and blower suction and discharge lines) completed on the Unit 1 diesel engines in the middle 1990s. The components used on the various engines were delivered at different times and, since liners, pistons, and rings are common replacement parts in the industry, creating a turnover in factory inventory, they likely came from different lots.

In the improbable event that the other EDGs were to have a similar problem to that experienced by 1B EDG on November 28, 2001, they would most likely continue to remain operable for the same reasons the 1B EDG was considered operable.

Even though the requested one-time AOT extension would increase the risk to the plant, for the reasons presented above, the staff concludes that this risk 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. 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 (66 FR 52803). 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.

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Date: February 22, 2002

Edwin I. Hatch Nuclear Plant

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