COMMANDE STATE OF THE STATE OF

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001January 31, 2001

Mr. J. B. Beasley, Jr.
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

SUBJECT:

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 RE: ISSUANCE

OF AMENDMENTS (TAC NOS. MA9217 AND MA9218)

Dear Mr. Beasley:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 117 to Facility Operating License NPF-68 and Amendment No. 95 to Facility Operating License NPF-81 for the Vogtle Electric Generating Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated June 14, 2000.

The amendments revise Surveillance Requirements (SR) 3.8.1.9 and 3.8.1.14 to reduce diesel generators loading requirements from ≥ 6800 kW and ≤ 7000 kW to ≥ 6500 kW and ≤ 7000 kW. These changes will make the above SRs consistent with SRs 3.8.1.3 and 3.8.1.13 which are in the current TSs. In addition, the proposed changes would correct a typographical error in Section 5.6.7, "EDG Failure Report," in the Vogtle TS. This editorial change will correctly reference Regulatory Position C.4 of Regulatory Guide (RG) 1.9, Revision 3 instead of Regulatory Position C.5.

The staff has evaluated the licensee's submittal and concludes that the proposed changes are consistent with the maximum expected loading following the worst case scenario for the Vogtle plant and are consistent with RG 1.9, Revision 3 and are, therefore, acceptable

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,

Ramin Assa, Project Manager, Section 1

Project Directorate II

Division of Licensing Project Management Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:

1. Amendment No. 117 to NPF-68

2. Amendment No. 95 to NPF-81

3. Safety Evaluation

cc w/encls: See next page

Mr. J. B. Beasley, Jr.

Vice President

Southern Nuclear Operating

Company, Inc.

Post Office Box 1295

Birmingham, Alabama 35201

January 31, 2001

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/RA/

Ramin Assa, Project Manager, Section 1 Project Directorate II Division of Licensing Project Management Office of Nuclear Reactor Regulation

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Vogtle Electric Generating Plant

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

GEORGIA POWER COMPANY OGLETHORPE POWER CORPORATION MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA CITY OF DALTON, GEORGIA VOGTLE ELECTRIC GENERATING PLANT, UNIT 1 AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 117 License No. NPF-68

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 1 (the facility) Facility Operating License No. NPF-68 filed by the Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated June 14, 2000 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-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 117, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this 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

Richard I. Emch. J.

Richard L. Emch, Jr., Chief, Section 1

Project Directorate II

Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: J.

January 31, 2001



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

VOGTLE ELECTRIC GENERATING PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 95 License No. NPF-81

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 2 (the facility) Facility Operating License No. NPF-81 filed by the Southern Nuclear Operating Company, Inc. (Southern Nuclear), acting for itself, Georgia Power Company Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated June 14, 2000, 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-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 95 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this 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

Ruhard L. Emch, J.

Richard L. Emch, Jr., Chief, Section 1

Project Directorate II

Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: January 31, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 117

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 95

FACILITY OPERATING LICENSE NO. NPF-81

DOCKET NO. 50-425

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	<u>Insert</u>
3.8.1-10	3.8.1-10
3.8.1-14	3.8.1-14
5.6-5	5.6-5

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY	
SR 3.8.1.7	All DG starts may be preceded by an engine prelube period.		
	Verify each DG starts from standby condition and achieves in \leq 11.4 seconds, voltage \geq 4025 V and \leq 4330 V, and frequency \geq 58.8 Hz and \leq 61.2 Hz.	184 days	
SR 3.8.1.8	NOTE		
	Verify each DG rejects a load ≥ its associated single largest post accident load, and:	18 months	
	 a. Following load rejection, the frequency is ≤ 64.5 Hz; 		
	 b. Within 3 seconds following load rejection, the voltage is ≥ 3750 V and ≤ 4330 V or ≤ 4550 V when performing the test synchronized with offsite power; and 		
	c. Within 3 seconds following load rejection, the frequency is ≥ 58.8 Hz and ≤ 61.2 Hz.		

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.9	Credit may be taken for unplanned events that satisfy this SR. Verify each DG operating as close as practicable to 3390 kVAR while maintaining voltage ≤ 4330 V does not trip and voltage is maintained ≤ 5000 V during and following a load rejection of ≥ 6500 kW and ≤ 7000 kW.	18 months

SURVEILLANCE	EQUIREMENTS (continu	red)	
	SURVEILLANCE		FREQUENCY
SR 3.8.1.14	This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ 6500 kW and ≤ 7000 kW. Momentary transients outside of load range do not invalidate this test.		
	2. All DG starts may b engine prelube peri		
Verify each DG starts ar ≤ 11.4 seconds, voltage and frequency ≥ 58.8 Hz		4025 V, and ≤ 4330 V	18 months
SR 3.8.1.15	This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR.		
	Verify each DG:		18 months
	 Synchronizes with c while loaded with er simulated restoratio 	nergency loads upon a	
	b. Transfers loads to o	ffsite power source; and	
	c. Returns to ready-to-	load operation.	

5.6 Reporting Requirements

5.6.6 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR) (continued)

- 3. Letter from C. I. Grimes, NRC, to R. A. Newton, Westinghouse Electric Corporation, "Acceptance for Referencing of Topical Report WCAP-14040, Revision 1, 'Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves,' "October 16, 1995.
- 4. Letter from C. K. McCoy, Georgia Power Company, to U.S. Nuclear Regulatory Commission, Attention: Document Control Desk, "Vogtle Electric Generating Plant, Pressure and Temperature Limits Report," Enclosures 1 and 2, January 26, 1996.
- d. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

5.6.7 <u>EDG Failure Report</u>

If an individual emergency diesel generator (EDG) experiences four or more valid failures in the last 25 demands, these failures and any nonvalid failures experienced by that EDG in that time period shall be reported within 30 days. Reports on EDG failures shall include the information recommended in Regulatory Guide 1.9, Revision 3, Regulatory Position C.4, or existing Regulatory Guide 1.108 reporting requirement.

5.6.8 PAM Report

When a Report is required by Condition G or K of LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6 Reporting Requirements

5.6.9 <u>Tendon Surveillance Report</u>

Any abnormal degradation of the containment structure detected during the tests required by the Prestressed Concrete Containment Tendon Surveillance Program shall be reported to the NRC within 30 days. The report shall include a description of the tendon condition, the condition of the concrete (especially at tendon anchorages), the inspection procedures, the tolerances on cracking, and the corrective action taken.

5.6.10 Steam Generator Tube Inspection Report

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the NRC.
- b. The complete results of the steam generator tube inservice inspection shall be submitted to the NRC within 12 months following the completion of the inspection. This report shall include:
 - 1. Number and extent of tubes inspected,
 - 2. Location and percent of wall thickness penetration for each indication of an imperfection, and
 - 3. Identification of tubes plugged.
- C. Results of steam generator tube inspections which fall into Category C-3 all be reported to the NRC within 30 days and prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine the cause of the tube degradation and corrective measures taken to prevent recurrence.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 117 TO FACILITY OPERATING LICENSE NPF-68 AND AMENDMENT NO. 95 TO FACILITY OPERATING LICENSE NPF-81 SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL. VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By letter dated June 14, 2000, Southern Nuclear Operating Company, Inc., et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for the Vogtle Electric Generating Plant (Vogtle), Units 1 and 2. The proposed changes would revise Surveillance Requirements (SR) 3.8.1.9 and 3.8.1.14 to reduce the loading requirements for the diesel generators (DGs). Currently, SR 3.8.1.9 requires a full load rejection test from a load ≥ 6800 kW and ≤ 7000 kW. The proposed change to SR 3.8.1.9 would reduce the loading requirement to ≥ 6500 kW and ≤ 7000 kW. SR 3.8.1.14 requires a hot restart test after the DG has been operated for at least 2 hours loaded to ≥ 6800 kW and ≤ 7000 kW. The proposed change to SR 3.8.1.14 would revise the loading requirement to ≥ 6500 kW and ≤ 7000 kW. The licensee is requesting these changes to make these SRs consistent with SRs 3.8.1.3 and 3.8.1.13, which were changed by NRC letter dated October 25, 1999 (Amendments 109 and 87.) In addition, the proposed changes would correct a typographical error in Section 5.6.7, "EDG Failure Report," in the Vogtle TS. The correct reference is Regulatory Position C.4 of RG 1.9, Revision 3, "Selection, Design, and Qualification of Diesel-Generator Units Used as Standby (Onsite) Electric Power Systems at Nuclear Power Plants."

2.0 EVALUATION

By letter dated October 25, 1999, the staff's safety evaluation approved revisions to SRs 3.8.1.3 and 3.8.1.13 to reduce the loading requirements for the DGs. Revised SR 3.8.1.3 requires that the DGs be loaded and operated for \geq 60 minutes at a load \geq 6500 kW and \leq 7000 kW. Revised SR 3.8.1.13 requires the licensee to verify that each DG operates for \geq 24 hours while maintaining a voltage of \leq 4330 volts by: a) loading the DGs \geq 6900 kW and \leq 7700 kW and operating as close as practicable to 3390 kVAR for \geq 2 hours; and b) loading the DGs \geq 6500 kW and \leq 7000 kW and operating as close as practicable to 3390 kVAR for the remaining hours of the test.

The maximum expected DG loading for Vogtle has been determined to be 6447 kW and 3249 kVAR. This maximum expected loading occurs in conjunction with a loss of offsite power (LOSP). For Vogtle, the LOSP scenario is more limiting than a loss of coolant accident (LOCA)

concurrent with an LOSP. During an LOSP, the non-Class 1E buses that provide power to the pressurizer heaters are initially shed from the Class 1E buses and then automatically sequenced back onto the Class 1E buses. Following a LOCA, these non-Class 1E buses are not automatically loaded onto the Class 1E buses.

The changes proposed for SRs 3.8.1.9 and 3.8.1.14 are consistent with those changes approved for SRs 3.8.1.3 and 3.8.1.13. The proposed changes to SRs 3.8.1.9 and 3.8.1.14 are also consistent with the recommendations of RG 1.9, Revision 3. SR 3.8.1.9 implements RG 1.9, Item No. 2.2.8, "Full Load Rejection Test." Item No. 2.2.8 calls for a full-load rejection test to demonstrate the DG's capability to reject a load equal to 90 to 100 percent of its continuous rating while operating at a power factor between 0.8 and 0.9, to verify that voltage requirements are met, and verify that the DG does not trip on overspeed. The 90 percent of the continuous rating of 7000 kW is 6300 kW. The power factor for the DGs at 6500 kW and 3390 kVAR is 0.887, which is between 0.8 and 0.9. Therefore, revising the lower end of the load band specified by SR 3.8.1.9 from \geq 6800 kW to \geq 6500 kW is acceptable because it remains consistent with RG 1.9, Revision 3, Item No. 2.2.8, will verify that load requirements are met and the DG does not trip on over-speed.

SR 3.8.1.14 implements RG 1.9, Item No. 2.2.10, "Hot Restart Test." Item No. 2.2.10 calls for a hot restart test to demonstrate the hot restart functional capability at full-load temperature conditions (after it has operated for 2 hours at full load). Revising the lower end of the load band specified in SR 3.8.1.14 to \geq 6500 kW is consistent with Item No. 2.2.10 of RG 1.9, Revision 3, because \geq 6500 kW bounds the full-load condition expected following an LOSP, and it will continue to ensure that the DG is at a stable operating temperature for the hot restart test. Therefore, it is acceptable.

The proposed change to Section 5.6.7 is administrative in nature since it is correcting a typographical error. There is no Regulatory Position C.5 in RG 1.9, Revision 3. Regulatory Position C.4 discusses reporting criteria, therefore the correction from C.5 to C.4 is appropriate.

The staff has evaluated the licensee's submittal and concludes that the proposed changes are consistent with the maximum expected loading following the worst case scenario for the Vogtle plant and are consistent with Regulatory Guide 1.9, Revision 3. Therefore, they are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change 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 (65 FR 54087). 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.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: N. Trehan

Date: January 31, 2001