

July 21, 1998

Mr. C. K. McCoy
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201

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SUBJECT: ISSUANCE OF AMENDMENTS - VOGTLE ELECTRIC GENERATING PLANT,
UNITS 1 AND 2 (TAC NOS. MA1797 AND MA1798)

Dear Mr. McCoy:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 103 to Facility Operating License NPF-68 and Amendment No. 81 to Facility Operating License NPF-81 for the Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 8, 1998.

The amendments revise VEGP TS 5.5.7, "Reactor Coolant Pump Flywheel Inspection Program," to provide an exception to the examination requirements of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, dated August 1975.

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,
Original signed by:
David H. Jaffe, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:

1. Amendment No. 103 to NPF-68
2. Amendment No. 81 to NPF-81
3. Safety Evaluation

cc w/encl: See next page

DOCUMENT NAME: C:\LAM179.WP

OFFICE	PDII-2/FM	PDII-2/LA	OGC	PDII-2/D
NAME	D.JAFFE	L.BERRY	R. Buchmann	H. BERNOW
DATE	6/16/98	6/16/98	6/25/98	7/1/98
COPY	YES NO	YES NO	YES NO	YES NO

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

July 21, 1998

Mr. C. K. McCoy
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

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Sincerely,

A handwritten signature in black ink, appearing to read "D. H. Jaffe", written over a horizontal line.

David H. Jaffe, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

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cc w/encl: See next page

Vogtle Electric Generating Plant

cc:

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Burke County Commission
Waynesboro, Georgia 30830



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 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 103
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 May 8, 1998, 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.

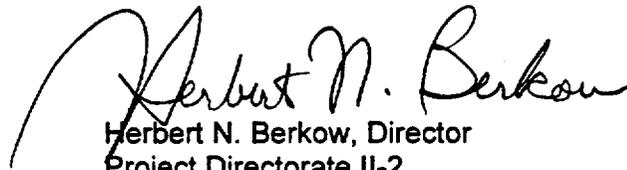
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 103 , 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: July 21, 1998



**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. 81
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 Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated May 8, 1998, 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. 81 , 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: July 21, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 103

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 81

FACILITY OPERATING LICENSE NO. NPF-81

DOCKET NO. 50-425

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove

Insert

5.0-12

5.0-12

-

5.0-12a*

-

5.0-12b

*overflow - no change

5.5 Programs and Manuals (continued)

5.5.6 Prestressed Concrete Containment Tendon Surveillance Program

This program provides controls for monitoring any tendon degradation in prestressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operations. The Tendon Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with Regulatory Guide 1.35, Revision 2, 1976.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Tendon Surveillance Program inspection frequencies.

5.5.7 Reactor Coolant Pump Flywheel Inspection Program

This program shall provide for the inspection of each reactor coolant pump flywheel at least once per 10 years by conducting either:

- a. An in-place ultrasonic examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius; or
- b. A surface examination (magnetic particle and/or liquid penetrant) of exposed surfaces of the disassembled flywheel.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Reactor Coolant Pump Flywheel Inspection Program.

5.5.8 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

- a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

(continued)

5.5 Programs and Manuals (continued)

<u>ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities</u>	<u>Required Frequencies for performing inservice testing activities</u>
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

(continued)

5.5 Programs and Manuals

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(continued)

Vogle Units 1 and 2

5.0-12b

Amendment No. 103 (Unit 1)
Amendment No. 81 (Unit 2)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 103 TO FACILITY OPERATING LICENSE NPF-68
AND AMENDMENT NO. 81 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 May 8, 1998 Southern Nuclear Operating Company, Inc., et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The proposed changes would revise VEGP TS 5.5.7, "Reactor Coolant Pump [RCP] Flywheel Inspection Program," to provide an exception to the examination requirements of Regulatory Position C.4.b of Regulatory Guide (RG) 1.14, Revision 1, dated August 1975.

2.0 DISCUSSION

The function of the RCP in the reactor coolant system (RCS) of a pressurized-water reactor (PWR) plant is to maintain an adequate cooling flow rate in the primary coolant system by circulating a large volume of primary coolant water at high temperature and pressure through the RCS. A concern regarding overspeed of the RCP and its potential for failure led to the issuance of RG 1.14, "Reactor Coolant Pump Flywheel Integrity," in 1971. Since then, licensees for PWR plants, with very few exceptions, have adopted the guidelines of RG 1.14 to conduct their RCP flywheel examinations. These requirements are specified in VEGP TS 5.5.7, in that, "This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendations of Regulatory Position c.4.b of Regulatory Guide 1.14, Revision 1, August 1975." The recommendations of Regulatory Position C.4.b are as follows:

b. Inservice inspection should be performed for each flywheel as follows:

- (1) An in-place ultrasonic volumetric examination of the areas of higher stress concentration at the bore and keyway at approximately 3-year intervals, during the refueling or maintenance shutdown coinciding with the inservice inspection schedule as required by Section XI of the ASME Code.
- (2) A surface examination of all exposed surfaces and complete ultrasonic volumetric examination at approximately 10-year intervals, during the plant shutdown coinciding with the inservice inspection schedule as required by Section XI of the ASME Code.

- (3) Examination procedures should be in accordance with the requirements of Subarticle IWA-2200 of Section XI of the ASME Code.
- (4) Acceptance criteria should conform to the recommendations of regulatory position C.2.f.
- (5) If the examination and evaluation indicate an increase in flaw size or growth rate greater than predicted for the service life of the flywheel, the results of the examination and evaluation should be submitted to the staff for evaluation.

In Westinghouse Topical Report WCAP-14535A, "Topical Report on Reactor Coolant Pump Flywheel Inspection Elimination," November 1996, information intended to eliminate examination of the RCP flywheels was provided. The staff reviewed this report as documented in a safety evaluation (SE) forwarded by a letter from Brian W. Sheron (USNRC) to Mr. Sushil C. Jain, dated September 12, 1996, "Acceptance for Referencing of Topical Report WCAP-14535, 'Topical Report on Reactor Coolant Pump Flywheel Inspection Elimination'." This SE concluded that a revised inspection schedule was justified for (1) flywheels made of SA 533 B material that do not belong to Groups 10 and 15 and (2) flywheels made of SA 533 B material that belong to these two groups if justified by some additional analyses. To justify a change in the flywheel inspection interval for flywheels not made of SA 533 B material, an assessment must be made using a methodology similar to that in WCAP-14535.

On the basis of the recommendations of WCAP-14535, the licensee submitted a proposed change to VEGP TS 5.5.7. The revised TS would require the following with regard to the RCP flywheel inspection program:

This program shall provide for the inspection of each reactor coolant pump flywheel at least once per 10 years by conducting either:

- a. An in-place ultrasonic examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius; or
- b. A surface examination (magnetic particle and/or liquid penetrant) of exposed surfaces of the disassembled flywheel.

The provisions of SR [Surveillance Requirement] 3.0.2 and SR 3.0.3 are applicable to the Reactor Coolant Pump Flywheel Inspection Program.

3.0 EVALUATION

Guidance for submitting plant-specific requests for alternate RCP flywheel inspection requirements is contained in Section 4.0, "Conclusions," of the September 12, 1996, NRC SE concerning WCAP-14535. The guidance that pertains to VEGP is as follows:

- (1) Licensees who plan to submit a plant-specific application of this topical report for flywheels made of SA 533 B material need to confirm that their flywheels are made of SA 533 B material.

The May 8, 1998, application contains confirmation that the RCP flywheels at VEGP are fabricated from SA 533 B material. Since the VEGP RCP flywheel material is SA 533 B material, position "(2)" of Section 4.0 of the NRC staff's SE of September 12, 1996, is not applicable to VEGP.

- (3) Licensees meeting either (1) or (2) above should either conduct a qualified in-place ultrasonic testing (UT) examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius or conduct a surface examination (MT [magnetic particle] and/or PT [liquid penetrant]) of exposed surfaces defined by the volume of the disassembled flywheels once every 10 years.

The May 8, 1998, application proposes an alternate inspection, in proposed VEGP TS 5.5.7, "Reactor Coolant Pump Flywheel Inspection Program," that substantially conforms to the guidance of the preceding item (3). Furthermore, since the VEGP pump flywheels are not in either Groups 10 or 15, as defined by WCAP-14535, the additional guidance of Section 4.0 of the NRC staff's SE of September 12, 1996, is not applicable to VEGP.

On the basis of the licensee's referencing of WCAP-14535, the substantial conformance to the positions in the associated NRC staff's SE, and the previous RCP pump flywheel inspections, which did not reveal any indications, the NRC staff finds the licensee's proposed TS to be 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 the 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 (63 FR 33108 dated June 17, 1998). 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: D. H. Jaffe

Date: July 21, 1998