



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

October 5, 2015

Mr. C. R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
Post Office Box 1295, Bin - 038
Birmingham, AL 35201-1295

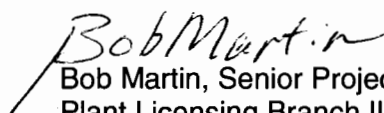
SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – ISSUANCE OF
AMENDMENTS FOR NITROGEN COVER PRESSURE (TAC NOS. MF6255
AND MF6256)

Dear Mr. Pierce:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 177 to Renewed Facility Operating License NPF-68 for the Vogtle Electric Generating Plant (VEGP), Unit 1, and Amendment No. 158 to Renewed Facility Operating License NPF-81 for VEGP Unit 2, in response to your letter dated May 19, 2015. The amendments revise the minimum indicated nitrogen cover pressure required per the VEGP Technical Specifications Surveillance Requirement 3.5.1.3 from the current requirement of 626 pounds per square inch gauge (psig) back to the previous requirement of 617 psig based on installation of updated instrumentation.

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,


Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424, 50-425

Enclosures:

1. Amendment No. 177 to NPF-68
2. Amendment No. 158 to NPF-81
3. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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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. 50-424

VOGTLE ELECTRIC GENERATING PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 177
Renewed License No. NPF-68

1. The U. S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 1 (the facility) Renewed Facility Operating License No. NPF-68 filed by the 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 May 19, 2015, 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.

Enclosure 1

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-68 is hereby amended to read as follows:

C. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 177, 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 ninety (90) days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to License No. NPF-68
and the Technical Specifications

Date of Issuance: October 5, 2015



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. 50-425

VOGTLE ELECTRIC GENERATING PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 158
Renewed 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) Renewed Facility Operating License No. NPF-81 filed by the 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 May 19, 2015, 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.

Enclosure 2

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-81 is hereby amended to read as follows:

C. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 158, 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 ninety (90) days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to License No. NPF-81
and the Technical Specifications

Date of Issuance: October 5, 2015

VOGTLE ELECTRIC GENERATING PLANT
ATTACHMENT TO LICENSE AMENDMENT NO. 177
RENEWED FACILITY OPERATING LICENSE NO. NPF-68
DOCKET NO. 50-424
AND
ATTACHMENT TO LICENSE AMENDMENT NO. 158
RENEWED FACILITY OPERATING LICENSE NO. NPF-81
DOCKET NO. 50-425

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

Remove Pages

License

License No. NPF-68, page 4

License No. NPF-81, page 3

TSs
3.5.1-2

Insert Pages

License

License No. NPF-68, page 4

License No. NPF-81, page 3

TSs
3.5.1-2

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 3625.6 megawatts thermal (100 percent power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 177, 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) Southern Nuclear Operating Company shall be capable of establishing containment hydrogen monitoring within 90 minutes of initiating safety injection following a loss of coolant accident.

(4) Deleted

(5) Deleted

(6) Deleted

(7) Deleted

(8) Deleted

(9) Deleted

(10) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:

1. Pre-defined coordinated fire response strategy and guidance
2. Assessment of mutual aid fire fighting assets
3. Designated staging areas for equipment and materials
4. Command and control
5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:

1. Protection and use of personnel assets
2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy

- (2) Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, pursuant to the Act and 10 CFR Part 50, to possess but not operate the facility at the designated location in Burke 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 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 as 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, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter 1 and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 3625.6 megawatts thermal (100 percent power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 158 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.

The Surveillance requirements (SRs) contained in the Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment No. 74. The SRs listed below shall be

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.1.1	Verify each accumulator isolation valve is fully open.	In accordance with the Surveillance Frequency Control Program
SR 3.5.1.2	Verify borated water volume in each accumulator is ≥ 6555 gallons and ≤ 6909 gallons.	In accordance with the Surveillance Frequency Control Program
SR 3.5.1.3	Verify nitrogen cover pressure in each accumulator is ≥ 617 psig and ≤ 678 psig.	In accordance with the Surveillance Frequency Control Program
SR 3.5.1.4	Verify boron concentration in each accumulator is ≥ 1900 ppm and ≤ 2600 ppm.	In accordance with the Surveillance Frequency Control Program <u>AND</u> For each affected accumulator, once within 6 hours after each solution volume increase of ≥ 67 gallons, that is not the result of addition from the refueling water storage tank
SR 3.5.1.5	Verify power is removed from each accumulator isolation valve operator when pressurizer pressure is > 1000 psig.	In accordance with the Surveillance Frequency Control Program



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 177 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-68

AND

AMENDMENT NO. 158 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-81

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-425 AND 50-425

1.0 INTRODUCTION

By application dated May 19, 2015 (Agencywide Documents Access and Management System Accession No. ML15139A578), Southern Nuclear Operating Company (SNC, the licensee) requested changes to the Technical Specifications (TSs) for Vogtle Electric Generating Plant, Units 1 and 2 (VEGP). The proposed amendments request a revision to the minimum indicated nitrogen cover pressure required per TS Surveillance Requirement (SR) 3.5.1.3, "Accumulators" from the current requirement of 626 pounds per square inch gauge (psig) back to the previous requirement of 617 psig.

2.0 REGULATORY REQUIREMENTS

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. In Section 50.36, "Technical Specifications," of Title 10 of the *Code of Federal Regulations* (10 CFR), the U.S. Nuclear Regulatory Commission (NRC) established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to plant operation: (1) safety limits, limiting safety system settings, and limiting control settings, (2) limiting conditions for operation, (3) SRs, (4) design features, and (5) administrative controls. Regarding SRs, the regulations in 10 CFR 50.36(c)(3) state:

Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The TS change being requested is related to a safety-related component credited in accident analyses requiring emergency core cooling, therefore General Design Criterion 35, "Emergency Core Cooling," in 10 CFR Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," is applicable and states, in part:

A system to provide abundant emergency core cooling shall be provided. The system safety function shall be to transfer heat from the reactor core following any loss of reactor coolant at a rate such that (1) fuel and clad damage that could interfere with continued effective core cooling is prevented and (2) clad metal-water reaction is limited to negligible amounts.

3.0 TECHNICAL EVALUATION

3.1 Summary of Technical Information Provided by the Licensee

The licensee provided the following summary in its license amendment request (LAR):

By letter dated July 26, 2011, Southern Nuclear Operating Company (SNC) requested a revision to the minimum indicated nitrogen cover pressure required per TS SR 3.5.1.3 in accordance with NRC Administrative letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety." This request was approved via NRC letter to SNC dated August 14, 2012. The revision was a necessary interim change to compensate for an increase in the indication uncertainty associated with the pressure transmitters installed at that time. These transmitters were replaced to correct the indication problem, and the currently installed transmitters exhibit a lower uncertainty that is bounded by the Westinghouse accident analysis on which the previous TS SR 3.5.1.3 value of 617 psig was based.

The NRC staff reviewed the LAR by evaluating the submitted information, and verifying that the proposed SR is appropriate. The following safety evaluation documents the review of the proposed change.

3.2 NRC Staff Evaluation

The Vogtle limiting decrease in reactor coolant inventory accident is the loss-of-coolant accident described in Vogtle final safety analysis report (FSAR) Section 15.6.5, "Loss-of-Coolant Accidents." The safety analysis described in FSAR Section 15.6.5 credits accumulator injection at 611.3 pounds per square inch atmospheric (psia), or 596.6 psig.

To ensure that the safety analysis in FSAR Section 15.6.5 remains valid – i.e., that the accumulators empty into the reactor coolant system at 596.6 psig, TS SR 3.5.1.3 currently requires verification that the nitrogen cover pressure in each accumulator is greater than or equal to 626 psig. Although TS SR 3.5.1.3 also requires verification that the nitrogen cover pressure in each accumulator is less than or equal to 678 psig, this value is not pertinent to the FSAR Section 15.6.5 safety analysis and is not being changed in the proposed LAR.

The proposed change would revise TS SR 3.5.1.3 to require verification that the nitrogen cover pressure in each accumulator is greater than or equal to 617 psig – a 9 psig reduction. The licensee explains that this change is appropriate as the reduction in the required accumulator nitrogen cover gas pressure is due to a revised uncertainty calculation that takes new accumulator pressure indication instrumentation uncertainty into account. The new instrument uncertainty, associated with the installation of new instruments, is now consistent with the instrument uncertainty before the interim measure discussed above was implemented.

The Veritrac/Tobar accumulator pressure transmitters were replaced with Rosemount pressure transmitters during Unit 1 Refueling Outage 17 and Unit 2 Refueling Outage 16 in 2012 and 2013, respectively. The licensee further explains in the LAR that “as a result of the transmitter replacement, the uncertainty of the affected instrumentation was restored to the value assumed in the Westinghouse accident analysis.”

The uncertainty associated with the new instrumentation is specified by the manufacturer. The NRC staff compared the manufacturer’s specified uncertainty with the assumptions used to conduct the Westinghouse accident analysis in FSAR Section 15.6.5. The NRC staff determined the uncertainty associated with the new instrumentation is consistent with the accident analysis and the proposed change to TS SR 3.5.1.3.

Since the proposed TS SR 3.5.1.3 change is consistent with the Westinghouse accident analysis supporting current FSAR Section 15.6.5, the NRC staff has reasonable assurance that the proposed TS SR 3.5.1.3 change is acceptable.

4.0 STATE CONSULTATION

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

5.0 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 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 (80 FR 43129, July 21, 2015). 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) there is reasonable assurance that 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:

A. Patel

Date: October 5, 2015

October 5, 2015

Mr. C. R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
Post Office Box 1295, Bin - 038
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT FOR NITROGEN COVER PRESSURE (TAC NOS. MF6255 AND MF6256)

Dear Mr. Pierce:

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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/
Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424, 50-425

Enclosures:

- 4. Amendment No. 177 to NPF-68
- 5. Amendment No. 158 to NPF-81
- 6. Safety Evaluation

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***By Memo**

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DATE	08/19/15	08/11/15	06/22/15	
OFFICE	DSS/STSB/BC	OGC	LPL2-1/BC	LPL2-1/PM
NAME	RElliott	BHarris	RPascarelli	BMartin
DATE	08/25/15	08/18/15	10/01/15	10/05/15

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