



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

August 31, 2017

Mr. James J. Hutto
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
P. O. Box 1295, Bin - 038
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2, ISSUANCE OF
AMENDMENTS REGARDING THE CONTROL ROOM VENTILATION SYSTEM
SURVEILLANCE REQUIREMENTS (CAC NOS. MF8851 AND MF8852)

Dear Mr. Hutto:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 189 to Renewed Facility Operating License NPF-68 and Amendment No. 172 to Renewed Facility Operating License NPF-81 for the Vogtle Electric Generating Plant, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated November 15, 2016, as supplemented by letter dated January 13, 2017.

The amendments revise TS 3.7.10, "Control Room Emergency Filtration System (CREFS) – Both Units Operating," Surveillance Requirement (SR) 3.7.10.2 to require operation of each CREFS train for greater than or equal to 15 continuous minutes with the heater control circuit energized. The revision to SR 3.7.10.2 is made in accordance with Technical Specification Task Force Traveler TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month," using the Consolidated Line Item Improvement Process.

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,

A handwritten signature in black ink, appearing to read "Michael Orenak".

Michael Orenak, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:

1. Amendment No. 189 to NPF-68
2. Amendment No. 172 to NPF-81
3. Safety Evaluation



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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. 189
Renewed 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) 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 November 15, 2016, as supplemented by letter dated January 13, 2017, 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.

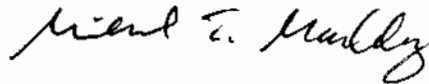
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 189, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, 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: August 31, 2017



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. 172
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 November 15, 2016, as supplemented by letter dated January 13, 2017, 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-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. 172, 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 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, 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: August 31, 2017

ATTACHMENT

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

TO LICENSE AMENDMENT NO. 189

RENEWED FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 172

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

3.7.10-5

Insert Pages

License

License No. NPF-68, page 4

License No. NPF-81, page 3

TSs

3.7.10-5

(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. 189, 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 and 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. 172 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 3.7.10.1	Verify control room air temperature $\leq 85^{\circ}\text{F}$.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.2	Operate each CREFS train for ≥ 15 continuous minutes with the heater control circuit energized.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.3	Perform required CREFS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.10.4	Verify each CREFS train actuates (switches to emergency mode) on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.5	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 189 TO RENEWED FACILITY OPERATING LICENSE NPF-68

AND

AMENDMENT NO. 172 TO RENEWED FACILITY OPERATING LICENSE NPF-81

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By application dated November 15, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16320A207), as supplemented by letter dated January 13, 2017 (ADAMS Accession No. ML17013A603), Southern Nuclear Operating Company, Inc. (SNC, the licensee), requested changes to the Technical Specifications (TSs) for the Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The supplement dated January 13, 2017, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on February 28, 2017 (82 FR 12135).

The amendments revise TS 3.7.10, "Control Room Emergency Filtration System (CREFS) – Both Units Operating," Surveillance Requirement (SR) 3.7.10.2 to require operation of each CREFS train for greater than or equal to 15 continuous minutes with the heater control circuit energized. The revision to SR 3.7.10.2 is made in accordance with Technical Specification Task Force Traveler TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month," (ADAMS Accession No. ML100890316) using the Consolidated Line Item Improvement Process that was published in the *Federal Register* on September 20, 2012 (77 FR 58421).

2.0 REGULATORY EVALUATION

2.1 System Description

One reason air filtration and adsorption systems are required at nuclear power plants is to lower the concentration of airborne radioactive material that may be released to the environment due

to a design basis event. Lowering the concentration of airborne radioactive materials can mitigate doses to plant operators and members of the public in the event of a design basis accident. A typical system consists of ventilation ductwork, fans, dampers, valves, instrumentation, prefilters or demisters, high efficiency particulate air (HEPA) filters, heaters, and activated charcoal adsorbers. These systems are tested by operating the systems and monitoring the response of the overall system as well as individual components. Laboratory tests of charcoal adsorbers are also performed to ensure the charcoal adsorbs an acceptable amount of radioactive gasses. Specifically, the CREFS lowers the concentration of airborne radioactive materials for the operators inside the VEGP, Units 1 and 2, control room during a reactor accident.

2.2 Proposed Changes to SR 3.7.10.2

The licensee has proposed revising surveillance requirement (SR) 3.7.10.2, which currently requires operating each train of the CREFS for at least 10 continuous hours with the heater control circuit energized at a frequency in accordance with the surveillance frequency control program (SFCP). SR 3.7.10.2 would be changed to require at least 15 continuous minutes of ventilation system operation with the heater control circuit energized in accordance with the SFCP.

SR 3.7.10.2 currently states:

Operate each CREFS train for ≥ 10 continuous hours with the heater control circuit energized.

SR 3.7.10.2 is revised to state:

Operate each CREFS train for ≥ 15 continuous minutes with the heater control circuit energized.

2.3 Regulations and Guidance

The U.S. Nuclear Regulatory Commission's (NRC's) regulatory requirements related to the content of the TS are contained in Title 10 of the *Code of Federal Regulations*, Section 50.36. The regulations at 10 CFR 50.36 require that the TS include items in the following categories: (1) safety limits, limiting safety systems settings, and limiting control settings; (2) Limiting Conditions for Operations (LCOs); (3) SRs; (4) design features; and (5) administrative controls. SRs 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 LCOs will be met.

Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50, General Design Criteria (GDC) 1, "Quality standards and records," states, in part, that:

Structures, systems, and components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed.

The filtration and adsorption system continuously filter a portion of the recirculated air of the CREFS during an accident, thus mitigating doses to the control room operators. SR 3.7.10.2 is one of the several surveillances (tests) that ensures CREFS operability. Because the CREFS

system is required for accident mitigation, GDC 1 requires that the system be tested to the quality standards commensurate with the importance of its safety function.

Regulatory Guide (RG) 1.52, Revision 2, "Design, Testing, and Maintenance Criteria for Post-Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants" (ADAMS Accession No. ML003740139) provides the current guidance and criteria applicable to VEGP, Units 1 and 2, to implement the regulations in 10 CFR related to air filtration and adsorption systems. VEGP, Units 1 and 2, TS 5.5.11, "Ventilation Filter Testing Program (VFTP)," delineates the required testing and test frequencies in accordance with RG 1.52, Revision 2. In addition, SR 3.7.10.2, which requires the licensee to operate each CREFS filter train with heater control energized for greater than 10 continuous hours, is consistent with RG 1.52, Revision 2. The proposed change affects the wording of SR 3.7.10.2, but not that of TS 5.5.11.

The NRC's guidance for the format and content of licensee TSs can be found in NUREG-1431, Revision 4, "Standard Technical Specifications: Westinghouse Plants," (ADAMS Accession No. ML12100A222). NUREG-1431, Revision 4.0, will hereby be identified in this safety evaluation as the STS. The modified guidance in TSTF-522, Revision 0, regarding heater operation has not yet been formally incorporated into the STS.

3.0 TECHNICAL EVALUATION

3.1 Background

Regulatory Position 4.d of Revision 2 of RG 1.52 states that:

Each ESF [engineered safety feature] atmosphere cleanup train should be operated at least 10 hours per month, with the heaters on (if so equipped), in order to reduce the buildup of moisture on the adsorbers and HEPA filters.

The purpose of this position is to minimize the moisture content in the system and thereby enhance efficiency in the event the system is called upon to perform its design basis function.

The STS SR 3.7.10.1 currently requires operating the heaters in the respective ventilation and filtering systems for at least 10 continuous hours every 31 days or at a frequency in accordance with the licensee's SFCP. The current Bases in the STS explain that operation of heaters for 10 hours for Westinghouse Plants would eliminate moisture on the charcoal adsorbers and HEPA filters. Subsequent to the issuance of the STS, the NRC staff was informed that 10 continuous hours of system operation would dry out the charcoal adsorber for a brief period of time, but the level of moisture accumulation in adsorbers would rapidly return to the pre-test level following heater de-energization. Acting on this updated information, the NRC staff issued Generic Letter (GL) 99-02: "Laboratory Testing of Nuclear-Grade Activated Charcoal" (ADAMS Accession No. ML082350935 and errata sheet at Accession No. ML031110094). GL 99-02 requested licensees to confirm their charcoal testing protocols accurately reflect the adsorber gaseous activity capture capability. GL 99-02 also requested the licensees to account for the effects of moisture accumulation in adsorbers.

Later revisions of RG 1.52 incorporated this new information and indicated the acceptability of a 15 minute run time for the monthly ESF atmosphere cleanup train and the heater operational check SR rather than the much longer 10 hour run time stipulated in RG 1.52, Revision 2. RG 1.52, Revision 3, Regulatory Position 6.1 states:

Each ESF [engineered safety feature] atmosphere cleanup train should be operated continuously for at least 15 minutes each month, with the heaters on (if so equipped), to justify the operability of the system and all its components.

One reason for the previous 10-hour requirement for ventilation system operation with heaters operating was to minimize the effects of moisture on the adsorber's ability to capture gaseous activity. However, these effects would already be accounted for in the licensee's Ventilation Filter Testing Program (VFTP), if testing were performed at a relative humidity (RH) of 95 percent. In such cases, heaters would not be necessary because RG 1.52, Revision 3, Regulatory Position 4.9 states, in part:

...Systems with humidity control can perform laboratory testing of representative samples of activated carbon at a relative humidity of 70%, and systems without humidity control should perform laboratory testing of representative samples of activated carbon at a relative humidity of 95% (See Table 1 of this guide).

The VEGP, Units 1 and 2, TS 5.5.11, "Ventilation Filter Testing Program (VFTP)," under item "c" requires testing of charcoal adsorbers in the CREFS at a relative humidity of 70 percent and under item "e" requires a demonstration of heater capacity. As noted in RG 1.52, Revision 3, Regulatory Position 4.9 and notes (3) and (4) to Table 1 "Laboratory Tests for Activated Carbon," heaters are an allowed means to control relative humidity at less than or equal to 70 percent RH.

3.2 NRC Staff Review

VEGP SR 3.7.10.2 currently requires that the air filtration and adsorption systems be operated for at least 10 continuous hours with heaters operating every 31 days. These requirements are based on the guidance of RG 1.52, Revision 2. RG 1.52, Revision 3, states at least 15 continuous minutes of ventilation system operation with heaters operating every 31 days or in accordance with the SFCP is acceptable for those plants that test ventilation system adsorption at a relative humidity of less than 95 percent. Licensees that test ventilation system adsorption at a relative humidity of 95 percent do not require heaters for the ventilation system to perform its specified safety function and the bracketed phrase "with heaters operating" is not included in the SRs.

The NRC staff evaluated the licensee's proposed change against the applicable regulatory guidance in RG 1.52, Revision 3, guidance in the STS as modified by TSTF-522, Revision 0, and the regulatory requirements of 10 CFR 50.36 and GDC 1 that assure that the necessary quality of the CREFS is maintained and that it is tested to the importance of its safety function.

The proposed change would require at least 15 minutes of CREFS system operation with the heater control circuit energized. Therefore, NRC staff found that the proposed change is consistent with guidance in RG 1.52, Revision 3.

The NRC staff compared the proposed changes to the existing SR, as well as the regulatory requirements of 10 CFR 50.36 and GDC 1. The existing SR provides assurance that the

necessary quality of ventilation systems and components will be maintained to a level commensurate with their safety importance and that the LCOs will be met. The proposed change reduces the amount of required system operational time from 10 hours to 15 minutes. The 10-hour operational requirement for heaters was based on using the SR to eliminate moisture in the adsorbers and thus ensure the adsorbers would capture gaseous activity. The effects of moisture on the adsorber's ability to capture gaseous activity are now accounted for in the licensee's VFTP by performing testing in a manner to account for the effects of moisture on the adsorber's ability to capture gaseous activity. The VFTP requirements are contained in TS 5.5.11 and require testing at a specific temperature and relative humidity value to account for the effects of moisture. Since the SRs are no longer relied upon to ensure the effects of moisture on the adsorber's ability to capture gaseous activity, the NRC staff finds that the 10-hour heater operational requirement is unnecessary and that the 15 minutes operational requirement is acceptable.

The NRC staff also evaluated the licensee's proposed change against TSTF-522, Revision 0. The proposed change adopted the SR 3.7.10.2 format and content, to the extent practicable, contained in TSTF-522, Revision 0. The NRC staff found that the VEGP SR 3.7.10.2 is different from the guidance in the STS, as modified by TSTF-522, Revision 0, in regards to the heater operation during the surveillance test. The STS and TSTF-522, Revision 0, guidance requires heaters to be operated during the surveillance as signified by the verbiage "with the heaters operating" in the SR, whereas the VEGP SR requires "with the heater control circuit energized". The licensee provided additional information in the January 13, 2017, supplement regarding the heater operation during the surveillance test, stating that the CREFS heaters are controlled by the relative humidity of the air flowing through the system. TS 3.7.10.3 requires CREFS filter testing in accordance with TS 5.5.11, "Ventilation Filter Testing Program (VFTP)", specifically in TS 5.5.11.e. The licensee also stated that the ability of the master Silicon Controlled Rectifier (SCR) and the slave SCRs to turn on the heaters is verified by a simulated high relative humidity signal. During the electrical test, temperature measurements are taken to ensure temperature rise in the air stream with the heaters energized per American Society of Mechanical Engineers N510-519. The NRC staff reviewed the information in the supplement regarding the heater control circuit and the VFTP. The NRC staff finds that the frequency of verification of heater operation, and not just heater control circuit energization, at VEGP could be less than what was stated in the STS and TSTF-522, Revision 0, due to the low possibility of reaching a humidity level of ≥ 70 percent in the CREFS air stream during normal operating conditions. However, the NRC staff finds that the combination of performing the proposed SR 3.7.10.2 surveillance and the VFTP heater tests provides reasonable assurance that the heaters are adequately maintained and tested to a level commensurate with their safety importance. Therefore, the NRC staff finds that the statement "with the heater control circuit energized" in SR 3.7.10.2 continues to be acceptable.

The NRC staff finds that reducing the required minimum system operation time to 15 minutes with the heater control energized is consistent with RG 1.52, Revision 3, and in conjunction with the VFTP, is sufficient to justify operability of the system and all its components. The NRC also determined that the requirements of the VFTP in TS 5.5.11 are not affected by the proposed change. Therefore, the continued reference to RG 1.52, Revision 2, in TS 5.5.11 is acceptable.

The NRC staff finds that the proposed SR 3.7.10.2 meets the regulatory requirements of 10 CFR 50.36 because it provides assurance that the necessary quality of ventilation system and components, including the heater, will be maintained and that the LCOs will be met. Additionally, the NRC staff finds that the proposed SR 3.7.10.2 meets the regulatory requirements of GDC 1 because the CREFS heaters will continue to be tested to a level

commensurate with their safety importance. Therefore, the NRC staff concludes the proposed changes to VEGP, Units 1 and 2, SR 3.7.10.2 are 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 on June 29, 2017. The NRC staff confirmed that the State official had no comments on June 29, 2017.

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 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 (82 FR 12135, February 28, 2017). 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 Contributors: N. Karipineni
 M. Hamm

Date: August 31, 2017

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS REGARDING THE CONTROL ROOM VENTILATION SYSTEM SURVEILLANCE REQUIREMENTS (CAC NOS. MF8851 AND MF8852) DATED AUGUST 31, 2017

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