

November 15, 2016

Docket Nos.: 50-424
50-425

NL-16-2205

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant – Units 1 and 2
License Amendment Request - Application To Revise Technical
Specifications To Adopt TSTF-522, "Revise Ventilation System
Surveillance Requirements To Operate For 10 Hours Per Month,"
Using the Consolidated Line Item Improvement Process

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.90 Southern Nuclear Operating Company (SNC) is submitting a request for an amendment to the Technical Specifications (TS) for Vogtle Electric Generating Plant (VEGP), Units 1 and 2.

The proposed amendment would modify TS requirements to operate ventilation systems with charcoal filters for 10 hours each month in accordance with TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month."

Enclosure 1 provides a description and assessment of the proposed change. Enclosure 2 provides the current TS pages marked up to show the proposed change. Enclosure 3 provides revised (clean) TS pages. Enclosure 4 provides current TS Bases pages marked up to show the proposed change.

SNC requests approval of the proposed license amendment by November 30, 2017, with the proposed changes being implemented within 90 days of issuance of the amendment.

In accordance with 10 CFR 50.91(b)(1), "State Consultation," a copy of this application and its reasoned analysis about no significant hazards considerations is being provided to the designated Georgia official.

If you have any questions, please contact Ken McElroy at 205.992.7369.

Mr. C. R. Pierce states he is Regulatory Affairs Director of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and, to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,



C. R. Pierce
Regulatory Affairs Director

CRP/GKM/GLS

Sworn to and subscribed before me this 15th day of November, 2016.


Notary Public

My commission expires: 10-8-2017

Enclosures:

1. Basis for Proposed Change
2. VEGP Technical Specification Marked Up Page
3. VEGP Technical Specification Clean Page
4. VEGP Technical Specification Bases Marked Up Page (for information only)

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. B. K. Taber, Vice President – Vogtle 1 & 2
Mr. M. D. Meier, Vice President – Regulatory Affairs
Mr. B. J. Adams, Vice President – Engineering
Mr. D. R. Madison, Vice President – Fleet Operations
Mr. D. D. Sutton, Regulatory Affairs Manager – Vogtle 1 & 2
RType: CVC7000

U. S. Nuclear Regulatory Commission

Ms. C. Haney, Regional Administrator
Mr. R. E. Martin, NRR Senior Project Manager – Vogtle 1 & 2
Mr. E. T. Coffman, Senior Resident Inspector – Vogtle 1 & 2

State of Georgia

Mr. J. H. Turner, Director – Environmental Protection Division

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Enclosure 1

Basis for Proposed Change

Enclosure 1 to NL-16-2205
Basis for Proposed Change

Table of Contents

- 1.0 Description
- 2.0 Assessment
- 3.0 Regulatory Analysis
- 4.0 Environmental Evaluation

1.0 DESCRIPTION

The proposed change revises the Surveillance Requirements which currently require operating ventilation systems with the heaters operating for a continuous 10 hour period at a frequency specified in the Surveillance Frequency Control Program (SFCP). The Surveillance Requirements are revised to require operation of the systems for 15 continuous minutes at a frequency specified in the SFCP.

The change is consistent with TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month."

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

Southern Nuclear Operating Company (SNC) has reviewed the model safety evaluation (SE) published on September 20, 2012 as part of the Federal Register Notice for Availability (77 FR 58421). This review included a review of the NRC staff's evaluation, as well as the supporting information provided in TSTF-522. As described in the subsequent paragraphs, SNC has concluded that the justifications presented in the TSTF-522 proposal and the safety evaluation prepared by the NRC staff are applicable to the Vogtle Electric Generating Plant (VEGP), Units 1 and 2, and justify this amendment for the incorporation of the changes to the VEGP Units 1 and 2 TS.

2.2 Optional Changes and Variations

SNC is proposing the following variations from the TS changes described in the TSTF-522, Revision 0, or the applicable parts of the NRC staff's model safety evaluation published on September 20, 2012 (77 FR 58421).

VEGP Units 1 and 2 TS utilize a different numbering than the Standard Technical Specifications on which TSTF-522 was based. Specifically, SR 3.7.10.2 numbering was used since SR 3.7.10.1 was previously used in the VEGP Units 1 and 2 TS. This difference is administrative and does not affect the applicability of TSTF-522 to the VEGP Units 1 and 2 TS. Also, the SR 3.7.10.2 will state "operate the Control Room Emergency Filtration System (CREFS) for ≥ 15 continuous minutes with the heaters control circuit energized." The VEGP CREFS contains heaters that are controlled by the relative humidity of the air flowing through the system. The VEGP CREFS heaters automatically turn on at 70% relative humidity to limit the moisture content of the carbon adsorbers. Periodic operation of each CREFS train with the heater control circuit energized ensures the moisture content of the adsorbers is maintained $\leq 70\%$ relative humidity.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

VEGP Units 1 and 2 requests adoption of an approved change to the standard technical specifications (STS) and plant specific technical specifications (TS), to revise Technical Specification (TS) 3.7.10, "Control Room Emergency Filtration System (CREFS)," to revise the Surveillance Requirement to operate the CREFS system with the heaters control circuit energized for a continuous 10 hour period at a frequency specified in the

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SFCP. The Surveillance Requirement is revised to require operation of the system for 15 continuous minutes at a frequency specified in the SFCP.

As required by 10 CFR 50.91(a), an analysis of the issue of no significant hazards consideration is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change replaces an existing Surveillance Requirement to operate the Westinghouse CREFS equipped with electric heaters for a continuous 10 hour period at a frequency specified in the SFCP with a requirement to operate the systems for 15 continuous minutes with heaters operating, if needed.

This system is not an accident initiator and therefore, these changes do not involve a significant increase in the probability of an accident. The proposed system and filter testing changes are consistent with current regulatory guidance for these systems and will continue to assure that these systems perform their design function which may include mitigating accidents. Thus the change does not involve a significant increase in the consequences of an accident.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change replaces an existing Surveillance Requirement to operate the Westinghouse CREFS system equipped with electric heaters for a continuous 10 hour period at a frequency specified in the SFCP with a requirement to operate the system for 15 continuous minutes with heaters operating, if needed.

The change proposed for these ventilation systems does not change any system operations or maintenance activities. Testing requirements will be revised and will continue to demonstrate that the Limiting Conditions for Operation are met and the system components are capable of performing their intended safety functions. The change does not create new failure modes or mechanisms and no new accident precursors are generated.

Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change replaces an existing Surveillance Requirement to operate the

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Westinghouse CREFS systems equipped with electric heaters for a continuous 10 hour period at a frequency specified in the SFCP with a requirement to operate the systems for 15 continuous minutes with heaters operating, if needed.

The design basis for the ventilation systems' heaters is to heat the incoming air which reduces the relative humidity. The heater testing change proposed will continue to demonstrate that the heaters are capable of heating the air and will perform their design function. The proposed change is consistent with regulatory guidance.

Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety. Based on the above, SNC concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.0 ENVIRONMENTAL EVALUATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

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Enclosure 2

VEGP Technical Specification Marked Up Page

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.10.1 Verify control room air temperature $\leq 85^{\circ}\text{F}$.</p> <div data-bbox="269 478 412 537" style="border: 1px solid black; padding: 2px; display: inline-block;">minutes</div> <div data-bbox="834 504 912 562" style="border: 1px solid black; padding: 2px; display: inline-block;">15</div>	In accordance with the Surveillance Frequency Control Program
<p>SR 3.7.10.2 Operate each CREFS train for ≥ 40 continuous hours with the heater control circuit energized.</p>	In accordance with the Surveillance Frequency Control Program
<p>SR 3.7.10.3 Perform required CREFS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).</p>	In accordance with the VFTP
<p>SR 3.7.10.4 Verify each CREFS train actuates (switches to emergency mode) on an actual or simulated actuation signal.</p>	In accordance with the Surveillance Frequency Control Program
<p>SR 3.7.10.5 Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.</p>	In accordance with the Control Room Envelope Habitability Program

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Enclosure 3

VEGP Technical Specification Clean Page

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

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Enclosure 4

VEGP Technical Specification Bases Marked Up Page (for information only)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.10.2 (continued)

Monthly operations with the heater control circuit energized allows the heaters to operate as necessary to reduce the humidity in the ambient air and ensure excessive moisture (> 70% relative humidity) is removed from the adsorber and HEPA filters.

~~Systems with heaters must be operated for ≥ 10 continuous hours with the heater control circuit energized and Flow (FI-12191, FI-12192) through the HEPA filters and charcoal adsorbers is verified. Operation with the heater control circuit energized for ≥ 15 continuous minutes demonstrates OPERABILITY of the system. Periodic operation ensures that heater failure, blockage, fan or motor failure, or excessive vibration can be detected for corrective action.~~

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.7.10.3

This SR verifies that the required CREFS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The CREFS filter tests are in accordance with Regulatory Guide 1.52 (Ref. 4). The VFTP includes testing the performance of the HEPA filter, charcoal adsorber efficiency, minimum flow rate, and the physical properties of the activated charcoal. Specific test Frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.10.4

This SR verifies that each CREFS train starts and operates on an actual or simulated actuation signal. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.7.10.5

This SR verifies the OPERABILITY of the CRE boundary by testing for unfiltered air leakage past the CRE boundary and into the CRE. The details of the testing are specified in the Control Room Envelope Habitability Program. The CRE is considered habitable when the radiological dose to CRE occupants calculated in the licensing basis analyses of DBA consequences is no more than 5 rem whole body or its equivalent to any part of the body and the CRE occupants are protected from hazardous chemicals and smoke. This SR verifies that the unfiltered air leakage into the CRE is no greater than the flow rate assumed in the licensing basis analysis of DBA consequences. When unfiltered air leakage is greater than the assumed flow rate, Condition D must be entered. Required Action D.3 allows time to restore the CRE

(continued)