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Docket Nos.: 50-424  
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NL-16-2206

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

Vogtle Electric Generating Plant – Units 1 and 2  
Application for Technical Specification Change TSTF-374, Revision  
to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil  
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 by relocating references to specific American Society for Testing and Materials (ASTM) standards for fuel oil testing to licensee-controlled documents and adding alternate criteria to the "clear and bright" acceptance test for new fuel oil.

Enclosure 1 provides a description of the proposed changes, the requested confirmation of applicability, and plant-specific verifications. Enclosure 2 provides the current TS pages marked up to show the proposed changes. Enclosure 3 provides revised (clean) TS pages. Enclosure 4 provides current TS Bases pages marked up to show the proposed changes.

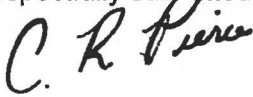
SNC requests approval of the proposed license amendments by November 30, 2017, with the proposed changes being implemented within 90 days of issuance of the amendment.

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 officials.

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.

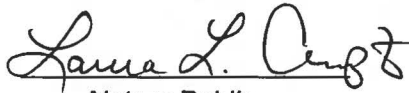
Respectfully submitted,



C. R. Pierce  
Regulatory Affairs Director

CRP/GKM/GLS

Sworn to and subscribed before me this 15<sup>th</sup> day of November, 2016.



Notary Public

My commission expires: 10-8-2017

Enclosures:

1. Basis for Proposed Change
2. VEGP Technical Specification Marked Up Pages
3. VEGP Technical Specification Clean Typed Pages
4. VEGP Technical Specification Bases Marked Up Pages (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-16-2206  
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 amendment would modify Technical Specifications (TS) by adding alternate criteria to the "clear and bright" acceptance test for new fuel oil. The Unit 1 and 2 VEGP TS already have references to specific American Society for Testing and Materials (ASTM) standards for fuel oil testing in a licensee-controlled document, hence this change is not requested.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specifications (STS) change TSTF-374 Revision 0. The availability of this TS improvement was published in the Federal Register on April 21, 2006 (71 FR 20735), as part of the consolidated line item improvement process (CLIIP).

### 2.1 ASSESSMENT

#### 2.2 Applicability of TSTF-374, and Published Safety Evaluation

Southern Nuclear Operating Company (SNC) has reviewed the TSTF-374 (Reference 1), and the NRC model safety evaluation (SE) (Reference 2) as part of the CLIIP. SNC has concluded that the information in TSTF-374, as well as the SE prepared by the NRC staff are applicable to 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.

#### 2.3 Optional Changes and Variations

SNC is not proposing any variations or deviations from the requested TS changes described in the TSTF-374, Revision 0, or the applicable parts of the NRC staff's model safety evaluation published in the Federal Register on February 22, 2006 (71 FRN 9179). (Note: VEGP TS already have references to specify ASTM standards for fuel oil testing in a licensee controlled document. This change, therefore is not required.)

VEGP TS Bases do not list ASTM version number except in References section. Since it is in the References section, it's still controlled pursuant to 10CFR 50.59.

## 3.1 REGULATORY ANALYSIS

### 3.2 No Significant Hazards Consideration Determination

Southern Nuclear Operating Company (SNC) has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIIP. SNC has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to VEGP Units 1 and 2 and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### 3.3 Verification and Commitments

As discussed in the notice of availability published in the Federal Register on April 21, 2006 (71 FR 20735) for this TS improvement, plant-specific verifications were performed as follows:

SNC has proposed TS Bases consistent with TSTF-374, which provide guidance and details on how to implement the new requirements. In addition, SNC has a

Bases Control Program consistent with Section 5.5 of the Standard Technical Specifications (STS).

#### 4.0 ENVIRONMENTAL EVALUATION

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment adopting TSTF-374, Rev 0, involves 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 TSTF-374, Rev 0, involves no significant hazards considerations, and there has been no public comment on the finding in Federal Register Notice 70 FRN 9179, February 22, 2006. Accordingly, the amendment meets 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 amendment.

#### 5.1 REFERENCES

1. TSTF-374, Revision 0, "Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil."
2. NRC Model Safety Evaluation (71 FRN 9179).

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**Enclosure 2**

**VEGP Technical Specification Marked Up Pages**

or a water and sediment content within limits.

## 5.5 Programs and Manuals

### 5.5.13 Diesel Fuel Oil Testing Program (continued)

1. an API gravity or an absolute specific gravity within limits, or an API gravity or specific gravity within limits when compared to the supplier's certificate;
  2. a flash point within limits for ASTM 2D fuel oil, and, if gravity was not determined by comparison with supplier's certification, a kinematic viscosity within limits for ASTM 2D fuel oil; and
  3. a clear and bright appearance with proper color;
- b. Other properties for ASTM 2D fuel oil are within limits within 30 days following sampling and addition to storage tanks; and
  - c. Total particulate concentration of the fuel oil is  $\leq 10$  mg/l when tested every 31 days.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance frequencies.

### 5.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
  1. a change in the TS incorporated in the license; or
  2. a change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- d. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- e. Proposed changes that meet the criteria of (b) above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

(continued)



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**Enclosure 3**

**VEGP Technical Specification Clean Typed Pages**

## 5.5 Programs and Manuals

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### 5.5.13 Diesel Fuel Oil Testing Program (continued)

1. an API gravity or an absolute specific gravity within limits, or an API gravity or specific gravity within limits when compared to the supplier's certificate;
  2. a flash point within limits for ASTM 2D fuel oil, and, if gravity was not determined by comparison with supplier's certification, a kinematic viscosity within limits for ASTM 2D fuel oil; and
  3. a clear and bright appearance with proper color or a water and sediment content within limits.
- b. Other properties for ASTM 2D fuel oil are within limits within 30 days following sampling and addition to storage tanks; and
- c. Total particulate concentration of the fuel oil is  $\leq 10$  mg/l when tested every 31 days.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance frequencies.

### 5.5.14 Technical Specifications (TS) Bases Control Program

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- d. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- e. Proposed changes that meet the criteria of (b) above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

(continued)

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**Enclosure 4**

**VEGP Technical Specification Bases Marked Up Pages (for information only)**

## BASES

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### SURVEILLANCE REQUIREMENTS

#### SR 3.8.3.3 (continued)

- b. Verify in accordance with the tests specified in ASTM D975 (Ref. 7) that the sample has an API Gravity of within 0.3 degrees at 60°F, or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate or an absolute specific gravity at 60/60°F of  $\geq 0.82$  and  $\leq 0.89$  or an API gravity at 60°F of  $\geq 27$  degrees and  $\leq 42$  degrees when tested in accordance with ASTM D1298 (Ref. 6), a kinematic viscosity at 40°C of  $\geq 1.9$  centistokes and  $\leq 4.1$  centistokes, if gravity was not determined by comparison with supplier's certification, and a flash point of  $\geq 125^\circ\text{F}$ ; and
- c. Verify that the new fuel oil has a clear and bright appearance with proper color when tested in accordance with ASTM D4176 or a water and sediment content within limits when tested in accordance with ASTM D2709 (Ref. 6).

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the LCO concern since the fuel oil is not added to the storage tanks.

Within 31 days following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975 (Ref. 7) are met for new fuel oil when tested in accordance with ASTM D975, except that the analysis for sulfur may be performed in accordance with ASTM D1552, ASTM D2622, or ASTM D4294 (Ref. 6). The 31 day period is acceptable because the fuel oil properties of interest, even if they were not within stated limits, would not have an immediate effect on DG operation. This Surveillance ensures the availability of high quality fuel oil for the DGs.

Fuel oil degradation during long term storage shows up as an increase in particulates, due mostly to oxidation. The presence of particulates does not mean the fuel oil will not burn properly in a diesel engine. The particulates can cause fouling of filters and fuel oil injection equipment, however, which can cause engine failure.

Particulate concentrations should be determined in accordance with ASTM D5452 (Ref. 6) which provides for obtaining a field sample and subsequent laboratory testing.

(continued)

## BASES

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### SURVEILLANCE REQUIREMENTS

#### SR 3.8.3.7 (continued)

The SR is modified by a Note that excepts the performance of this SR when the associated DG is required OPERABLE by LCO 3.8.2. This exception is consistent with the SR performance exceptions in LCO 3.8.2 for SRs that might impact the OPERABILITY of the DGs.

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### REFERENCES

1. FSAR, Paragraph 9.5.4.2.
  2. Regulatory Guide 1.137.
  3. ANSI N195-1976, Appendix B.
  4. FSAR, Chapter 6.
  5. FSAR, Chapter 15.
  6. ASTM Standards: D4057-06; D1298-06; D4176-04; D1552-07; D2622-07; D4294-08a; D5452-08; D2709-96.
  7. ASTM Standards, D975-07.
  8. Southern Company Services Calculation number X4C2403V08, Standby Diesel Generator Fuel Oil Consumption and Storage Tank Capacity.
  9. Southern Company Services Calculation numbers X4C2403V11 and X4C2403V12, Emergency Diesel Generator Lube Oil Inventory Technical Specification Values.
  10. Southern Company Services Calculation number X4C2403V09, Emergency Diesel Generator Starting Air Pressure Technical Specification Value.
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