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SOUTHERN COMPANY

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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
Voluntary Revision to Final Safety Analysis Report Chapter 8

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. In the enclosure to this letter, SNC is supplementing the COL Application (COLA) Part 2, Final Safety Analysis Report (FSAR), to address a recently identified AP1000 Design Control Document (DCD) revision to a Chapter 8 COL information item regarding battery charger and voltage regulating transformer testing.

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061 or Ms. Amy Aughtman at (205) 992-5805.

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NRO

Mr. C. R. Pierce states he is the AP1000 Licensing Manager 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,

SOUTHERN NUCLEAR OPERATING COMPANY

Charles R. Pierce

Charles R. Pierce

Sworn to and subscribed before me this 15 *day of* October, *2010*

Notary Public: Nancy Louise Henderson

My commission expires: March 23, 2014

CRP/BJS

Enclosure: VEGP Units 3 and 4 COL Application - Voluntary Revision to FSAR Chapter 8

cc: Southern Nuclear Operating Company
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VEGP Units 3 and 4 COL Application –

Voluntary Revision to FSAR Chapter 8

NuStart Qb Tracking No. 4226
STD COL 8.3-2

Westinghouse provided a response to OI-SRP8.3.2-EEB-09 Rev. 3 (Westinghouse letter No. DCP_NRC_002920, dated June 18, 2010) related to the periodic testing of battery chargers and voltage regulating transformers. The response to the Design Control Document (DCD) Open Item included a revision to the COL information item identified in DCD Subsection 8.3.3 for items requiring plant procedures. Per the Westinghouse letter, this section of the DCD will be revised to include the following line item:

The Combined License applicant will establish plant procedures as required for:

- Combined License applicants referencing the AP1000 certified design will ensure that periodic testing is performed on the battery chargers and voltage regulating transformers.

FSAR Subsection 13.5.2 addresses the establishment of plant procedures. As stated in DCD Section 8.3.2.2, the Class 1E battery chargers and Class 1E voltage regulating transformers are designed to limit the input (ac) current to an acceptable value under faulted conditions on the output side. They have built-in circuit breakers at the input and output sides for protection and isolation.

The battery chargers and regulating transformers are tested periodically per manufacturer recommendations. However, Westinghouse has indicated that the voltage regulating transformers do not have active components to limit current; therefore, the maximum current is determined by the impedance of the transformer. The voltage regulating transformer in combination with fuses and/or breakers will interrupt the input or output (ac) current under faulted conditions on the output side. COL Application Part 7 will be revised to include a Departure from DCD Section 8.3.2.2 clarifying the current limiting feature of voltage regulating transformers.

The circuit breakers that are credited with an isolation function are selected for proper coordination. These circuit breakers will be tested through the use of breaker test equipment to verify conformance to their specifications. Fuses and fuse holders will be inspected periodically. These verifications will confirm the ability of the circuits to perform the designed coordination and corresponding isolation function between Class 1E and non-Class 1E components.

Appropriate changes corresponding to the above will be included in FSAR Subsection 8.3.2.1.4 and COL Application Part 7 as identified in the Application Revisions section below. These changes will be included in a future COLA revision.

Westinghouse has indicated that the above noted changes to the DCD will be included in an upcoming revision to the AP1000 DCD amendment, and as such, these changes to the COL application are not considered to be a departure from the DCD, except as specifically identified above and in the Application Revisions section below. Should Westinghouse not incorporate these changes as expected, a revision to this response will be provided to address the differences.

This response is expected to be STANDARD for the S-COLAs.

Associated VEGP COL Application Revisions:

1. COLA Part 2, FSAR Chapter 8, Subsection 8.3.2.1.4, Maintenance and Testing, will be revised to add the following as the last paragraph with LMA STD COL 8.3-2:

   Procedures are established for periodic testing of the Class 1E battery chargers and Class 1E voltage regulating transformers in accordance with the manufacturer recommendations.

   - Circuit breakers in the Class 1E battery chargers and Class 1E voltage regulating transformers that are credited for an isolation function are tested through the use of breaker test equipment. This verification confirms the ability of the circuit to perform the designed coordination and corresponding isolation function between Class 1E and non-Class 1E components. Circuit breaker testing is done as part of the Maintenance Rule program and testing frequency is determined by that program.
   - Fuses / fuse holders that are included in the isolation circuit are visually inspected.
   - Class 1E battery chargers are tested to verify current limiting characteristic utilizing manufacturer recommendation and industry practices. Testing frequency is in accordance with that of the associated battery.

2. COLA Part 2, FSAR Chapter 8, will be revised to add new Section 8.3.2.2 to read:

   8.3.2.2 Analysis

STD DEP 8.3-1 Replace the first sentence of the third paragraph of DCD Subsection 8.3.2.2 with the following:

The Class 1E battery chargers are designed to limit the input (ac) current to an acceptable value under faulted conditions on the output side, however, the voltage regulating transformers do not have active components to limit current; therefore, the Class 1E voltage regulating transformer maximum current is determined by the impedance of the transformer.

3. COLA Part 2, FSAR Chapter 1, Table 1.8-201, Summary of FSAR Departures from the DCD, will be revised to add the following:

Departure Number	Departure Description Summary	FSAR Section or Subsection
STD DEP 8.3-1	The Class 1E voltage regulating transformers do not have active components to limit current.	8.3.2.2

4. COLA Part 7, Section A, STD and VEGP Departures, will be revised to add the following departure:

Departure Number	Description
STD DEP 8.3-1	Class 1E voltage regulating transformer current limiting features

5. COLA Part 7, Section A.1, Departures that Can Be Implemented Without Prior NRC Approval, will be revised to add the following departure:

Departure Number	Description
STD DEP 8.3-1	Class 1E voltage regulating transformer current limiting features

Departure Number: STD DEP 8.3-1

Affected DCD/FSAR Sections: 8.3.2.2

Summary of Departure:

The DCD states that the Class 1E battery chargers and Class 1E voltage regulating transformers are designed to limit the input (ac) current to an acceptable value under faulted conditions on the output side. However, the AP1000 voltage regulating transformers do not have active components to limit current.

Scope/Extent of Departure:

This departure is identified in FSAR Section 8.3.2.2.

Departure Justification:

DCD section 8.3.2.2 states that the Class 1E voltage regulating transformers have built-in circuit breakers at the input and output sides for protection and isolation. The circuit breakers are coordinated and periodically tested to verify their designed coordination and isolation function. They are qualified as isolation devices between Class 1E and non-Class 1E circuits in accordance with IEEE 384 and Regulatory Guide 1.75. Since the isolation and protection function is provided by the breakers, there is no need for the voltage regulating transformers to have current limiting capability. This departure does not adversely affect any safety-related system, nor does it conflict with applicable regulatory guidance.

Departure Evaluation:

This Tier 2 departure is associated with isolation between Class 1E loads and the non-Class 1E ac power source. The departure results in a change to the DCD that does not impact the required design function (i.e., isolation). Accordingly, it does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD;

2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety and previously evaluated in the plant-specific DCD;

3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD;

4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD;

5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD;

6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD;

7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered; or

8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This Tier 2 departure does not affect resolution of an ex-vessel severe accident design feature identified in the plant-specific DCD.

Therefore, this departure has no safety significance.

NRC Approval Requirement:

This departure does not require NRC approval pursuant to 10 CFR Part 52, Appendix D, Section VIII.B.5.

ASSOCIATED ATTACHMENTS/ENCLOSURE:

None