J. Barnie Beasley, Jr., P.E.
Vice President
Vogtle Project

Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
P.O. Box 1295
Birmingham, Alabama 35201

Tel 205.992.7110
Fax 205.992.0403

SOUTHERN COMPANY
Energy to Serve Your World℠

LCV-1329-C

June 14, 2000

Docket Nos. 50-424
50-425

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

Ladies and Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
DIESEL GENERATOR LOADING REQUIREMENTS
SURVEILLANCE REQUIREMENTS 3.8.1.9 AND 3.8.1.14

In accordance with the requirements of 10 CFR 50.90, Southern Nuclear Operating Company (SNC) proposes to revise the Vogtle Electric Generating Plant (VEGP) Unit 1 and Unit 2 Technical Specifications (TS). The proposed changes would revise Surveillance Requirements (SRs) 3.8.1.9 and 3.8.1.14 to reduce the diesel generator (DG) loading requirements from ≥ 6800 kW and ≤ 7000 kW to ≥ 6500 kW and ≤ 7000 kW. In addition, the proposed changes would correct a typographical error in section 5.6.7, EDG Failure Report. Presently, this section references Regulatory Position C.5 of Regulatory Guide 1.9, Revision 3. The correct reference should be Regulatory Position C.4. There is no Regulatory Position C.5 in Regulatory Guide 1.9, Revision 3. There are no TS Bases changes associated with the proposed changes.

By letter dated October 25, 1999, the NRC staff issued Amendments 109 and 87 to the VEGP TS. These amendments revised SRs 3.8.1.3 and 3.8.1.13 to reduce the loading requirements for the DGs. Revised SR 3.8.1.3 requires that the DGs be loaded and operated for ≥ 60 minutes at a load ≥ 6500 kW and ≤ 7000 kW. Revised SR 3.8.1.13 requires that the DGs be loaded ≥ 6900 kW and ≤ 7700 kW and operated as close as practicable to 3390 KVAR for ≥ 2 hours. For the remaining hours of the test, the DGs would be loaded ≥ 6500 kW and ≤ 7000 kW and operated as close as practicable to 3390 KVAR. These amendments were in response to our letters LCV-1329, dated May 18, 1999, and LCV-1329-A, dated September 22, 1999.

In summary, the basis for the changes approved with Amendments 109 and 87 was:

A001

NRR-057

1. The new loading requirements bound the maximum expected DG loading under the worst case scenario for VEGP. The maximum expected DG loading under the worst case scenario for VEGP was determined to be 6447 kW and 3249 kVAR.

2. The new loading requirements reduce wear and tear on the DGs due to testing.

The basis for the proposed changes to SRs 3.8.1.9 and 3.8.1.14 is the same as for the changes approved with Amendments 109 and 87. The TS Bases for SR 3.8.1.9 currently state that the test simulates the loss of the total connected load that the DG experiences following a full load rejection and verifies that the DG does not trip upon loss of the load. Since the loading requirements of $\geq$ 6500 kW and $\leq$ 7000 kW bound the maximum expected DG loading under the worst case scenario for VEGP, the proposed change to SR 3.8.1.9 is consistent with the existing associated TS Bases. The TS Bases for SR 3.8.1.14 state that the load band is provided to avoid routine overloading of the DG. Routine overloads may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG operability. Therefore, the proposed change to SR 3.8.1.14 is consistent with the existing associated TS Bases.

The proposed change to section 5.6.7 is administrative in nature since it is simply correcting a typographical error.

The basis for the proposed changes is discussed in more detail in Enclosure 1. Pursuant to 10 CFR 50.92, an evaluation that demonstrates that the proposed changes do not involve a significant hazard consideration is provided in Enclosure 2. The proposed changes are marked on the affected TS pages provided in Enclosure 3, and clean-typed TS pages are provided in Enclosure 4.

SNC requests approval of the proposed changes by December 29, 2000.

Mr. J. B. Beasley, Jr. states that he is a Vice President of Southern Nuclear Operating Company and is authorized to execute this oath on behalf of Southern Nuclear Operating Company and that, to the best of his knowledge and belief, the facts set forth in this letter are true.

SOUTHERN NUCLEAR OPERATING COMPANY

By: _____
J. B. Beasley, Jr.

Sworn to and subscribed before me this 14th *day of* June, *2000.*

Glenda C. Sparks
Notary Public
My Commission expires: 11/10/02

JBB/NJS

Enclosure 1 – Basis for Proposed Changes
Enclosure 2 – Significant Hazards Consideration Evaluation
Enclosure 3 – Marked-up TS Pages
Enclosure 4 – Clean-typed TS Pages

xc: Southern Nuclear Operating Company
Mr. J. T. Gasser
Mr. M. Sheibani
SNC Document Management

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. R. Assa, Project Manager, NRR
Mr. John Zeiler, Senior Resident Inspector, Vogtle

State of Georgia
Mr. L. C. Barrett, Commissioner, Department of Natural Resources

Enclosure 1

Vogtle Electric Generating Plant
Request to Revise Technical Specifications
Diesel Generator Loading Requirements
Surveillance Requirements 3.8.1.9 and 3.8.1.14

Basis for Proposed Changes

Proposed Changes

The proposed changes would revise Surveillance Requirements (SRs) 3.8.1.9 and 3.8.1.14 to reduce the loading requirements for the diesel generators (DGs). Presently, SR 3.8.1.9 requires a full load rejection test from a load ≥ 6800 kW and ≤ 7000 kW. The proposed change to SR 3.8.1.9 would reduce the loading requirement to ≥ 6500 kW and ≤ 7000 kW. SR 3.8.1.14 requires a hot restart test after the DG has been operated for at least 2 hours loaded to ≥ 6800 kW and ≤ 7000 kW. The proposed change to SR 3.8.1.14 would revise the loading requirement to ≥ 6500 kW and ≤ 7000 kW.

In addition, the proposed changes would correct a typographical error in section 5.6.7, EDG Failure Report, in the VEGP TS. Presently section 5.6.7 references Regulatory Position C.5 of Regulatory Guide 1.9, Revision 3. The correct reference is Regulatory Position C.4 of Regulatory Guide 1.9, Revision 3.

Basis

By letter dated October 25, 1999, the NRC staff issued Amendments 109 and 87 to the VEGP Unit 1 and Unit 2 TS. These amendments revised SRs 3.8.1.3 and 3.8.1.13 to reduce the loading requirements for the DGs. Revised SR 3.8.1.3 requires that the DGs be loaded and operated for ≥ 60 minutes at a load ≥ 6500 kW and ≤ 7000 kW. Revised SR 3.8.1.13 requires that the DGs be loaded ≥ 6900 kW and ≤ 7700 kW and operated as close as practicable to 3390 KVAR for ≥ 2 hours. For the remaining hours of the test, the DGs would be loaded ≥ 6500 kW and ≤ 7000 kW and operated as close as practicable to 3390 KVAR. These amendments were in response to our letters LCV-1329, dated May 18, 1999, and LCV-1329-A, dated September 22, 1999.

The basis for the proposed changes to SRs 3.8.1.9 and 3.8.1.14 is the same as the basis for Amendments 109 and 87. As documented in LCV- 1329-A, the maximum expected DG loading for VEGP has been determined to be 6447 kW and 3249 kVAR. This maximum expected loading occurs in conjunction with a loss of offsite power. For VEGP, the loss of offsite power (LOSP) scenario is more limiting than a loss of coolant accident (LOCA) in conjunction with an LOSP. During a LOSP, the non-1E buses that provide power to the pressurizer heaters are initially shed from the 1E buses and then automatically sequenced back onto the 1E buses. On a safety injection signal, which would be expected to occur following a LOCA, these non-1E buses are not automatically loaded onto the 1E buses. In addition, as stated in LCV-1329, the changes approved with Amendments 109 and 87 are expected to reduce wear and tear on the DGs due to testing. The changes proposed for SRs 3.8.1.9 and 3.8.1.14 are consistent with those changes that were approved for SRs 3.8.1.3 and 3.8.1.13 with Amendments 109 and 87.

The proposed changes to SRs 3.8.1.9 and 3.8.1.14 are also consistent with the recommendations of Regulatory Guide 1.9, Revision 3, "Selection, Design, and Qualification of Diesel-Generator Units Used as Standby (Onsite) Electric Power Systems at Nuclear Power Plants." SR 3.8.1.9 implements Item 2.2.8 of Regulatory Guide 1.9, Revision 3. Item 2.2.8 calls for a full-load rejection test to demonstrate the DG's capability to reject a load equal to 90 to 100 percent of its continuous rating while operating at a power factor between 0.8 and 0.9, and verify that the voltage requirements are met and the DG does not trip on overspeed. The continuous rating of the VEGP DGs is 7000 kW, and 90 percent of 7000 kW is 6300 kW. The power factor for the DGs at 6500 kW and 3390 kVAR is 0.887 which is between 0.8 and

Basis for Proposed Changes

0.9. Therefore, revising the lower end of the load band specified by SR 3.8.1.9 from 6800 kW to 6500 kW remains consistent with Item 2.2.8 of Regulatory Guide 1.9, Revision 3.

SR 3.8.1.14 implements Item 2.2.10 of Regulatory Guide 1.9, Revision 3. Item 2.2.10 calls for a hot restart test to demonstrate the hot restart functional capability at full-load temperature conditions (after the DG has operated for 2 hours at full load). Revising the lower end of the load band specified in SR 3.8.1.14 to 6500 kW is consistent with Item 2.2.10 of Regulatory Guide 1.9, Revision 3, because 6500 kW bounds the full-load condition expected following an LOSP, and it will continue to ensure that the DG is at a stable operating temperature for the purpose of the hot restart test.

The proposed change to section 5.6.7 is administrative in nature since it is merely correcting a typographical error. There is no Regulatory Position C.5 in Regulatory Guide 1.9, Revision 3. Regulatory Position C.4 discusses reporting criteria.

Conclusion

The proposed changes are consistent with the maximum expected loading following the worst case scenario for the VEGP DGs. They are also consistent with the guidance of Regulatory Guide 1.9, Revision 3, and the basis for approval of Amendments 109 and 87. Finally the proposed changes should reduce wear and tear on the DGs due to testing, thereby inherently increasing emergency DG reliability.

Enclosure 2

Vogtle Electric Generating Plant
Request to Revise Technical Specifications
Diesel Generator Loading Requirements
Surveillance Requirements 3.8.1.9 and 3.8.1.14

Significant Hazard Consideration Evaluation

The proposed changes have been evaluated against the criteria of 10 CFR 50.92 as follows:

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

   No. The proposed change to section 5.6.7 is administrative only since it does nothing more than correct a typographical error. The proposed changes to the DG loading requirements specified in SRs 3.8.1.9 and 3.8.1.14 have no impact on or relationship to the probability of any of the initiating events assumed for the accidents previously evaluated. Therefore, the proposed changes do not involve a significant increase in the probability of any accident previously evaluated. Furthermore, since the proposed loading requirements bound the maximum expected loading for the DGs, SRs 3.8.1.9 and 3.8.1.14 will continue to demonstrate that the DGs are capable of performing their safety function. Since the proposed changes do not adversely affect the capability of the DGs to perform their safety function, the outcome of the accidents previously evaluated (i.e., radiological consequences) will not be affected. Therefore, the proposed changes do not involve a significant increase in the consequences of any accident previously evaluated.

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

   No. The proposed change to section 5.6.7 is administrative only since it does nothing more than correct a typographical error. The proposed changes to the DG loading requirements specified in SRs 3.8.1.9 and 3.8.1.14 will not introduce any new equipment or create new failure modes for existing equipment. Other than the reduced loading requirements for the DGs, the proposed changes will not affect or otherwise alter plant operation. The DGs will remain capable of performing their safety function. No other safety related or important to safety equipment will be affected by the proposed changes. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

   No. The proposed change to section 5.6.7 is administrative only since it does nothing more than correct a typographical error. The proposed changes reduce the loading requirements of SRs 3.8.1.9 and 3.8.1.14. The new loading requirements bound the maximum expected loading of the DGs under the worst case scenario, and they are consistent with the regulatory guidance found in Regulatory Guide (RG) 1.9, Revision 3, "Selection, Design, and Qualification of Diesel-Generator Units Used as Standby (Onsite) Electric Power Systems at Nuclear Power Plants," July 1993. Reduction in wear and tear should inherently increase the reliability of the DGs. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Conclusion

Based on the above evaluation, the proposed changes do not involve a significant hazard as defined in 10 CFR 50.92.

Enclosure 3

Vogtle Electric Generating Plant
Request to Revise Technical Specifications
Diesel Generator Loading Requirements
Surveillance Requirements 3.8.1.9 and 3.8.1.14

Marked-up TS Pages

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.9	----------NOTE---------- Credit may be taken for unplanned events that satisfy this SR. ----------	
	Verify each DG operating as close as practicable to 3390 kVAR while maintaining voltage ≤ 4330 V does not trip and voltage is maintained ≤ 5000 V during and following a load rejection of ≥ ~~6000~~ 6500 kW and ≤ 7000 kW.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.14	----------NOTES---------- 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ ~~6800~~ 6500 kW and ≤ 7000 kW. Momentary transients outside of load range do not invalidate this test. 2. All DG starts may be preceded by an engine prelube period. ---------- Verify each DG starts and achieves, in ≤ 11.4 seconds, voltage ≥ 4025 V, and ≤ 4330 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	18 months
SR 3.8.1.15	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. ---------- Verify each DG: a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation.	18 months

(continued)

5.6 Reporting Requirements

5.6.6 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR) (continued)

3. Letter from C. I. Grimes, NRC, to R. A. Newton, Westinghouse Electric Corporation, "Acceptance for Referencing of Topical Report WCAP-14040, Revision 1, 'Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves,'" October 16, 1995.

4. Letter from C. K. McCoy, Georgia Power Company, to U.S. Nuclear Regulatory Commission, Attention: Document Control Desk, "Vogtle Electric Generating Plant, Pressure and Temperature Limits Report," Enclosures 1 and 2, January 26, 1996.

d. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

5.6.7 EDG Failure Report

If an individual emergency diesel generator (EDG) experiences four or more valid failures in the last 25 demands, these failures and any nonvalid failures experienced by that EDG in that time period shall be reported within 30 days. Reports on EDG failures shall include the information recommended in Regulatory Guide 1.9, Revision 3, Regulatory Position C.~~5~~4, or existing Regulatory Guide 1.108 reporting requirement.

5.6.8 PAM Report

When a Report is required by Condition G or K of LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

(continued)

Enclosure 4

Vogtle Electric Generating Plant
Request to Revise Technical Specifications
Diesel Generator Loading Requirements
Surveillance Requirements 3.8.1.9 and 3.8.1.14

Clean-typed TS Pages

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.9	----------NOTE---------- Credit may be taken for unplanned events that satisfy this SR. ---------- Verify each DG operating as close as practicable to 3390 kVAR while maintaining voltage ≤ 4330 V does not trip and voltage is maintained ≤ 5000 V during and following a load rejection of ≥ 6500 kW and ≤ 7000 kW.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.14	----------NOTES---------- 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ 6500 kW and ≤ 7000 kW. Momentary transients outside of load range do not invalidate this test. 2. All DG starts may be preceded by an engine prelube period. ---------- Verify each DG starts and achieves, in ≤ 11.4 seconds, voltage ≥ 4025 V, and ≤ 4330 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	18 months
SR 3.8.1.15	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. ---------- Verify each DG: a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation.	18 months

(continued)

5.6 Reporting Requirements

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