



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

September 16, 2010

Mr. Mark J. Ajluni
Manager, Nuclear Licensing
Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
P.O. Box 1295
Birmingham, AL 35201


SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2, REQUEST FOR
ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT
REQUEST FOR TECHNICAL SPECIFICATION (TS) TABLE 3.3.1-1 (TAC NOS.
ME3302 AND ME3303)

Dear Mr. Ajluni:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated February 2, 2010 (Agencywide Documents Access and Management System (ADAMS), Accession No. ML100340033), Southern Nuclear Operating Company, Inc., submitted a license amendment request for TS Table 3.3.1-1, "Reactor Trip System Instrumentation," Function 3, "Power Range Neutron Flux High Positive Rate." The change adds surveillance requirement 3.3.1.15 which requires verification that the response time is within limits every 18 months on a staggered test basis. The NRC staff finds that additional information is needed as identified in the enclosure.

Please provide a response within thirty (30) days of the date of this letter.

Sincerely,


Robert E. Martin, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosure:
RAI

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING LICENSE AMENDMENT REQUEST FOR
REVISION TO TECHNICAL SPECIFICATION TABLE 3.3.1-1
VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2
DOCKET NOS. 50-424 AND 50-425

Reactor Systems

1. Information for the Maximum Reactor Coolant System (RCS) Pressure Analysis

Page E1-3 of Enclosure 1 of the License Amendment Request (LAR), indicates that an analysis of 680 cases was performed of a control rod bank withdrawal event at power conditions (RWAP) starting from various initial conditions and reactivity insertion rates. All cases assumed reactor trips from the signals of high flux trip, (2) high-pressurizer pressure trip, and (3) positive flux rate trip (PFRT) for over-pressure protection.

The current Chapter 15.4.2 of the Updated Final Safety Analysis report (UFSAR) documents the analysis of the RWAP event for Vogtle, for which the limiting acceptance criterion is departure from nucleate boiling ratio. The addition of Surveillance Requirement 3.3.1.15 to the PFRT function is understood to ensure protection from over-pressurization of the RCS. Please provide information, (comparable to the current text in UFSAR, Section 15.4.2, including Figures 15.4.2-1 through 15.4.2-9), that shows the calculated maximum RCS pressure as a function of reactivity insertion rate for minimum and maximum reactivity feedback, and other applicable plant initiating conditions, for an RWAP event starting from various power levels applicable to the analysis. Demonstrate that the applicable reactor coolant pressure boundary limits are met. The information should include a description of the results in the requested figures, in combination with a discussion of the computer codes, methods, assumptions, and reactor trips as well as the associated trip setpoints and the trip delay times assumed in the analysis.

2. Inclusion of the Results of the Overpressure Analysis in the USFAR for an RWAP Event

Please provide clarification of Southern Nuclear Operating Company, Inc's., plans to reflect information provided in response to the above Request for Additional Information in an update of the UFSAR, pursuant to the requirements of Title 10 of the *Code of Federal Regulations*, Part 50, Section 50.71, "Maintenance of records, making of reports."

Instrumentation and Controls

1. The reanalysis for RWAP discussed in page E1-3 of the LAR assumed a 9-percent safety analytical limit.

- a. Confirm that the allowable value of 6.3-percent rated thermal power (RTP) and nominal trip setpoint of 5-percent RTP specified in Technical Specification (TS) Table 3.3.1-1 function 3 are calculated from this 9-percent safety analytical limit.

Otherwise,

- b. Provide the summary calculation of total loop uncertainty for the PFRT input to confirm that this total loop uncertainty will support the setpoint evaluation analysis. The summary calculation should provide setpoint methodology and the basis for calculating design limit, limiting set point, nominal setpoint, allowable value, acceptable as-found tolerance band, and acceptable as-left band.
 - c. Describe the measures to be taken to ensure that the associated instrument channel is capable of performing its specified safety functions in accordance with applicable design requirements and associated analyses. Include in the discussion information on the controls employed to ensure that the as-left setting after completion of periodic surveillance is consistent with your methodology. Also, discuss the plant corrective action processes (including plant procedures) for restoring channels to operable status when channels are determined to be "inoperable" or "operable but degraded." If the controls are located in a document other than the TS (e.g., plant test procedure), describe how it is ensured that the controls will be implemented.
2. Justify that the proposed 18-month surveillance frequency provides sufficient safety margins for the system channel response time.

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*provided by memo dated

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