

June 28, 2006

MEMORANDUM TO: Evangelos C. Marinos, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

FROM: Christopher Gratton, Senior Project Manager */RAI/*  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

SUBJECT: VOGTLE ELECTRIC GENERATING STATION, UNITS 1 AND 2 -  
FACSIMILE TRANSMISSION OF DRAFT REQUEST FOR  
ADDITIONAL INFORMATION (RAI) (TAC NOS. MC8510 AND  
MC8511)

The Nuclear Regulatory Commission (NRC) staff transmitted the enclosed draft RAI by facsimile to Mr. Jack Stringfellow of the Southern Nuclear Operating Company on May 24, 2006. The questions supported a conference call with the licensee held on June 1, 2006, regarding the licensee's submittal dated September 19, 2005. The licensee's application proposed to clarify when a flux map for Surveillance Requirement 3.2.4.2, "Quadrant Power Tilt Ratio," is required. This memorandum and the enclosed draft RAI do not convey or represent an NRC staff position regarding the licensee's request.

Docket Nos. 50-424 and 50-425

Enclosure:  
Draft RAI sent May 24, 2006

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DATE	6/20/06	6/20/06	6/28/06

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**DRAFT REQUESTS FOR ADDITIONAL INFORMATION**

**SOUTHERN NUCLEAR OPERATING COMPANY**

**VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2**

**DOCKET NUMBERS: 50-424 AND 50-425**

**TAC NOS. MC 8510 AND MC8511**

By letter dated September 19, 2005, Southern Nuclear Operating Company, Inc. (SNC) proposed to revise the Vogtle Electric Generating Plant (Vogtle), Units 1 and 2 Technical Specifications (TS). The proposed change would revise TS Limiting Conditions for Operation (LCO) 3.3.1, "Reactor Trip System (RTS) Instrumentation," and TS Surveillance Requirement (SR) 3.2.4.2, "Quadrant Power Tilt Ratio (QPTR)." The proposed change would revise TS 3.3.1, Condition D and the NOTE in SR 3.2.4.2 in order to avoid confusion as to when a flux map for QPTR is required.

In your September 19, 2006, letter, in Enclosure 1, "Vogtle Electric Generating Plant Request to Revise Technical Specifications Reactor Trip Setpoint Instrumentation, Basis for Proposed Changes," you included the following statement:

"Condition D applies to the Power Range Neutron Flux-High Function. If one channel is inoperable, then the channel must be placed in trip within 72 hours as stated in Required Action D.1.1. In addition to placing the inoperable channel in the tripped condition, the Required Action in D.1.2 requires the thermal power reduced to #75% [rated thermal power] RTP within 78 hours. An alternate to D.1.1 and D.1.2 is to place the inoperable channel in the tripped condition and perform SR 3.2.4.2 once every 12 hours."

The Nuclear Regulatory Commission staff has found that the license amendment application does not provide a safety analysis of all proposed Vogtle Units 1 and 2 TS changes. Upon discovery of an inoperable Power Range Neutron Flux-High Function channel, Vogtle Units 1 and 2 TS Condition D requires one of three actions to be met:

- (1) place the inoperable channel in the tripped condition (D.1.1) and reduce THERMAL POWER to #75 percent (%) RTP (D.1.2),  
or
- (2) place the inoperable channel in the tripped condition (D.2.1), and Perform SR 3.2.4.2 (only required to be performed when the power range neutron (PRN) flux channel input to QPTR is inoperable and THERMAL POWER is \$75 % RTP (D.2.2)), or
- (3) place the reactor in Mode 3 (D.3).

Requirement D.3 is retained. However, SNC does not provide a technical justification for deleting TS required action D.1.2 (reduce THERMAL POWER to #75 % RTP within 78 hours),

Enclosure

which is the subsequent required action after meeting D.1.1. Rather, the discussion states that "An alternate to D.1.1 and D.1.2 is to place the inoperable channel in the tripped condition and perform SR 3.2.4.2 once every 12 hours." This explanation does not address the proposed change to the Vogtle licensing basis. Please provide a technical justification for deleting TS required action D.1.2.

Additionally, Required Actions D.2.1 and D.2.2 specify actions that must be met if the input to the QPTR is inoperable as a result of the inoperable PRN flux channel. The current TS requirements states, SR 3.2.4.2 is only applicable above 75% RTP. The proposed TS changes would require the periodic testing in SR 3.2.4.2 when thermal power is above 75 % RTP and below 75 % RTP. Provide a justification for the change to the Vogtle TS that addresses plant operation with an inoperable PRN Flux channel for the case of the QPTR input inoperable below 75 % RTP and for the case of the QPTR input operable below 75 % RTP.

Please respond to this RAI on or before June 16, 2006, to assure timely completion of the amendment review.