

## VoglecolRAIsPEm Resource

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**From:** Goetz, Sujata  
**Sent:** Thursday, July 08, 2010 10:23 AM  
**To:** VoglecolRAIsPEm Resource  
**Subject:** RAI LETTER NO. 059 RELATED TO SRP SECTION 5.2.5 FOR THE VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSE APPLICATION  
**Attachments:** VOG-RAI-LTR-059 (2).docx

**Hearing Identifier:** Vogtle\_COL\_eRAIs  
**Email Number:** 73

**Mail Envelope Properties** (F5A4366DF596BF458646C9D433EA37D72F84B5455F)

**Subject:** RAI LETTER NO. 059 RELATED TO SRP SECTION 5.2.5 FOR THE VOGTLE  
ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSE APPLICATION  
**Sent Date:** 7/8/2010 10:23:27 AM  
**Received Date:** 7/8/2010 10:23:26 AM  
**From:** Goetz, Sujata

**Created By:** Sujata.Goetz@nrc.gov

**Recipients:**  
"VogtlecolRAIsPEm Resource" <VogtlecolRAIsPEm.Resource@nrc.gov>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

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MESSAGE	8	7/8/2010 10:23:26 AM
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**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

July 8, 2010

Mr. Joseph A. (Buzz) Miller  
Executive Vice President  
Southern Nuclear Operating Company  
P.O. Box 1295  
Birmingham, AL 35201

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 059 RELATED TO  
SRP SECTION 5.2.5 FOR THE VOGTLE ELECTRIC GENERATING PLANT  
UNITS 3 AND 4 COMBINED LICENSE APPLICATION

Dear Mr. Miller:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC), submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advance passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-8004 or you may contact Ravi Joshi, the lead project manager for the Vogtle combined license at 301-415-6191.

Sincerely,

**/RA/**

Sujata Goetz, Project Manager  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-025  
52-026

Enclosure:  
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-6191.

Sincerely,

/RA/

Ravindra G. Joshi, Project Manager  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-025  
52-026  
eRAI Tracking No. 4859

Enclosure:  
Request for Additional Information

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NRO-002

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NAME	SLee	SGoetz	AHodgdon*	RJoshi *
DATE	7/1/2010	7/7/2010	7/1/2010	7/7/2010

\*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 4859  
Vogtle  
Southern Nuclear Operating Co.  
Docket No. 52-0025 and 52-0026  
SRP Section: 05.02.05 - Reactor Coolant Pressure Boundary Leakage Detection  
Application Section: 5.2.5

QUESTIONS for Balance of Plant Branch 2 (ESBWR/ABWR) (SBPB)

05.02.05-1

**Question 05.02.05-1**

The operating experiences at Davis Besse (NRC Bulletin 2002-01) indicated that prolonged low-level unidentified reactor coolant leakage inside containment could cause material degradation such that it could compromise the integrity of a system leading to the gross rupture of the reactor coolant pressure boundary. The question was raised regarding licensees' practices for identifying and resolving degradation of the reactor coolant pressure boundary. AP1000 DCD has not addressed this issue; however, addressing this operating experience issue requires development and implementation of procedures by COL applicants rather than by the design certification applicant.

Therefore, pursuant to 10 CFR Part 52.79 Item 37, "information necessary to demonstrate how operating experience insights have been incorporated into the plant design," the COL applicant is requested to provide operating procedures or, at a minimum, a commitment in the FSAR to develop such procedures and to provide a schedule for completion. The procedures will specify operator actions in response to prolonged low level unidentified reactor coolant leakage conditions that exist above normal leakage rates and below the Technical Specification (TS) limits to provide operators sufficient time to take action before the TS limit is reached. The procedures would include identifying, monitoring, trending, and redressing prolonged low-level leakage.

The guidance about developing such procedures for ensuring effective management of leakage, including low-level leakage, is available in Regulatory Guide 1.45, Revision 1 (dated May 2008), "Guidance on Monitoring and Response to Reactor Coolant System Leakage," Regulatory Position C3, "Operations-Related Positions." In the FSAR, the applicant is requested to clarify whether it will commit to the above procedure guidance, or a proposed alternative. If it is an alternative, the applicant should provide its description.

05.02.05-2

**Question 05.02.05-2**

In order to support the procedures described in RAI Question 05.02.05-1, the applicant is requested to define the alarm setpoints and demonstrate that the setpoints are sufficiently low to provide an early warning for operator actions prior to Technical Specification limits. In addition, the applicant is requested to provide procedures for converting the instrument output to a common leakage rate.