

## SummerRAIsPEm Resource

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**From:** Ravindra Joshi  
**Sent:** Friday, January 23, 2009 10:58 AM  
**To:** SummerRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO SRP SECTION 12.03-12.04 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION  
**Attachments:** SUM-RAI-LTR-025.doc

**Hearing Identifier:** Summer\_COL\_eRAIs  
**Email Number:** 27

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**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO SRP SECTION 12.03-12.04 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION

**Sent Date:** 1/23/2009 10:58:05 AM

**Received Date:** 1/23/2009 10:58:06 AM

**From:** Ravindra Joshi

**Created By:** Ravindra.Joshi@nrc.gov

**Recipients:**

"SummerRAIsPEm Resource" <SummerRAIsPEm.Resource@nrc.gov>

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SUM-RAI-LTR-025.doc	52730	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

January 23, 2009

Mr. Alfred M. Paglia  
Manager, Nuclear Licensing  
MC P40  
South Carolina Electric & Gas Company  
PO Box 88  
Jenkinsville, SC 29065

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 025 RELATED TO  
SRP SECTION 12.03-12.04 FOR THE VIRGIL C. SUMMER NUCLEAR  
STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Dear Mr. Paglia:

By letter dated March 27, 2008, South Carolina Electric & Gas Company 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 301-415-6191 or Ravindra.Joshi@nrc.gov.

Sincerely,

**/RA/**

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

Docket Nos. 52-027  
52-028

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 or Ravindra.Joshi@nrc.gov.

Sincerely,

**/RA/**

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

Docket Nos. 52-027  
52-028

eRAI Tracking No. 1782, 1791

Enclosure:  
Request for Additional Information

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NRO-002

OFFICE	CHPB/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	TFrye*	RJoshi*	MSpencer*	RJoshi*
DATE	12/12/08	12/12/08	1/15/09	1/15/09

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

**Request for Additional Information**  
**Virgil C. Summer Nuclear Station Units 2 and 3**  
**South Carolina Electric & Gas Company**  
**Docket No. 52-027 and 52-028**  
**SRP Section: 12.03-12.04- Radiation Protection Design Features**

**Application Section: FSAR Section 12.4**

**QUESTION from Health Physics Branch (CHPB)**

12.03-12.04-1

VC Summer COL FSAR section 12.4.1.9 provides a description of the potential sources of exposure to construction workers. The dose limits to the workers are reviewed by the staff against the standards of 10 CFR 20.1301.

10 CFR 20.1301(a)(1) states "The total effective dose equivalent to individual members of the public from the licensed operation does not exceed 0.1 rem (1 mSv) in a year".

The Staff will review related VC Summer SCOL documents to support an independent assessment of compliance with the regulations. The staff, however, needs additional information to make a determination of reasonable assurance.

The V. C. Summer COL Environmental Report subsection 4.5.3.1.2 states that an Independent Spent Fuel Storage Installation (ISFSI) could be in operation to receive Unit 1 spent nuclear fuel while Unit 3 is still under construction.

VC Summer COL FSAR Subsection 12.4.1.9.2 does not describe whether the ISFSI was considered as a source of direct exposure to construction workers on Units 2 & 3.

Please revise FSAR subsection 12.4.1.9.2 to describe this and any other potential sources of exposure, the potential contribution to construction worker exposure, and provide sufficient information to demonstrate that standards of 10 CFR 20.1301 are met.

12.03-12.04-2

V C Summer COL FSAR section 12.4.1.9 provides a description of the potential sources of exposure to construction workers. The dose limits to the workers are reviewed by the staff against the standards of 10 CFR 20.1301.

10 CFR 20.1301 (a)(1) states "The total effective dose equivalent to individual members of the public from the licensed operation does not exceed 0.1 rem (1 mSv) in a year".

The Staff will review related V C Summer SCOL documents to support an independent assessment of compliance with the regulations, but the staff needs additional information to make a determination of reasonable assurance.

The V C Summer COL FSAR subsection 12.4.1.9.3 discusses sources of exposure from effluents to site construction workers, but the FSAR does not include potential exposure to liquid effluents from Unit 2 while workers are performing liquid waste effluent discharge piping connections.

Please revise FSAR subsection 12.4.1.9.3 to describe this potential source of exposure, the potential contribution to construction worker exposure, and provide sufficient information to demonstrate that the standards of 10 CFR 20.1301 concerning the estimated dose to construction workers due to the liquid waste effluent discharge piping connection between Units 2 and 3 are met.