

## PMSummerColpEM Resource

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**From:** Ravindra Joshi  
**Sent:** Wednesday, January 14, 2009 8:27 AM  
**To:** MONROE, AMY; GILES, JULIE M  
**Cc:** SummerCOL Resource  
**Subject:** FW: Draft RAI 1691 and 1758 related to SRP section 6.4 for Summer Units 2 and 3  
**Attachments:** RAI 1691.doc; RAI 1758.doc

Amy and Julie,

What about a conference call on Thursday, January 22, 2009 at 02:00PM to discuss RAIs 1691 and 1758?  
Ravi Joshi

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**From:** Ravindra Joshi  
**Sent:** Friday, January 09, 2009 1:45 PM  
**To:** Amy M. Monroe; April R. Rice; Jerry P. Harrison; Julie M. Giles  
**Cc:** SummerCOL Resource; Shie-Jeng Peng; Christopher Jackson  
**Subject:** Draft RAI 1691 related to SRP section 6.4 for Summer Units 2 and 3

To All,

Attached is a draft RAI (1691) related to SRP Section 6.4 for Summer Units 2 and 3. If you would like to schedule a conference call to discuss this RAI, please let me know before 5:00 PM on January 14, 2009. If no request for a conference call is received, this RAI will be issued as Final.

Thanks,

Ravindra G. Joshi  
Project Manager  
AP1000 Project  
NRO/DNRL/NWE1  
US NRC  
301-415-6191.

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**Subject:** FW: Draft RAI 1691 and 1758 related to SRP section 6.4 for Summer Units 2 and 3  
**Sent Date:** 1/14/2009 8:26:41 AM  
**Received Date:** 1/14/2009 8:26:43 AM  
**From:** Ravindra Joshi  
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Tracking Status: None  
"MONROE, AMY" <AMONROE@scana.com>  
Tracking Status: None  
"GILES, JULIE M" <JMGILES@scana.com>  
Tracking Status: None

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

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	865	1/14/2009 8:26:43 AM
RAI 1691.doc	30202	
RAI 1758.doc	27642	

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**Recipients Received:**

Request for Additional Information No. 1691

Virgil C. Summer Nuclear Station, Units 2 and 3  
South Carolina Electric and Gas Company  
Docket No. 52-027 and 52-028  
SRP Section: 06.04 - Control Room Habitability System  
Application Section: 6.4 - Habitability Systems

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)

06.04-\*\*\*

1. Provide an explanation for the impact of potential onsite and offsite chemicals on the control room habitability for Units 2 and 3.

Chapter 2 identifies onsite and offsite hazards (ammonium hydroxide and cyclohexylamine); however, no design features are included in sections 6.4 and 9.4 to protect the control room operators. Provide an explanation why the operators remain protected. Specifically, for these chemicals that exceed the IDLH at the control room intake explain why the operators remain protected. If manual or automatic actuations are necessary, explain and justify. Explain the operation of the ventilation system during the toxic gas transient and include the assumed flow rates as well as the mode of operation.

2. Provide details of the ALOHA analyses that support Subsections 2.2.3.1.3.1 and 2.2.3.1.3.3.

Provide details of the analyses that support Subsections 2.2.3.1.3.1 and 2.2.3.1.3.3, including input conditions and assumptions to permit independent confirmatory analysis. These details should include the size of spill, wind conditions (speed and direction), dilution of the chemicals, air intake flow rate of the ventilation system, size of the control room, and the control room in-leakage rate etc.

3. Provide evaluation for the impact of chemical releases on both Units 2 and 3 control rooms.

Tables 2.2.207 to 209 list the distances to either the unit 2 or 3 control rooms. Why do they not list values for both? Specifically, it is not known if the impact of cyclohexylamine on Unit 2 control room habitability, or 28% ammonium hydroxide on Unit 3 control room habitability, has been evaluated.

4. Provide information for the impact of potential onsite (Units 2 and 3) chemicals on the control room habitability for Units 2 and 3.

Both Tables 2.2-202 and 2.2-205 of FSAR Sec. 2.2.3.1.3 are titled with "Unit 1". There is no other similar FSAR section or table dealing with any potential onsite chemicals for

Units 2 and 3. Information for this situation is required in order to review the impact of potential onsite chemicals on the control room habitability for Units 2 and 3.

Request for Additional Information No. 1758

Virgil C. Summer Nuclear Station, Units 2 and 3  
South Carolina Electric and Gas Company  
Docket No. 52-027 and 52-028  
SRP Section: 06.04 - Control Room Habitability System  
Application Section: 6.4 - Habitability

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)

06.04-\*\*\*

1. Justify the use of ALOHA in Subsections 2.2.3.1.3.1 and 2.2.3.1.3.3.

Regulatory Guide 1.78 describes the use of HABIT code for calculating design basis toxic chemical dispersion. The Summer design basis utilizes ALOHA. Justify the use of ALOHA as an acceptable approach for calculating design basis toxic chemical dispersion. Include a description of how ALOHA is being used to ensure acceptable results.