PMSummerColpEM Resource

From: Ravindra Joshi
Sent: Thursday, January 22, 2009 4:28 PM
To: A. Paglia; Amy M. Monroe; April R. Rice; Donna S. Griffin; Jerry P. Harrison; Johnnie Waller (johnnie.waller@scana.com); Julie M. Giles; Kenneth J. Browne; Tria Kibler
Cc: SummerCOL Resource
Subject: RAI letter number 24 related SRP section 06.04 for Summer units 2 and 3
Attachments: SUM-RAI-LTR-024.pdf

To All,

Attached is RAI letter No.024 related to SRP Section 06.04 for the Summer Units 2 and 3. The ADAMS Accession number is ML090220636.

Ravi Joshi
Project Manager
NRO/DNRL/NWE1
US NRC
301-415-6191

Hearing Identifier: VCSummer_COL_Public
Email Number: 146

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5EB654ACA3CD)

Subject: RAI letter number 24 related SRP section 06.04 for Summer units 2 and 3
Sent Date: 1/22/2009 4:27:47 PM
Received Date: 1/22/2009 4:27:46 PM
From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

Recipients:
"SummerCOL Resource" <SummerCOL.Resource@nrc.gov>
Tracking Status: None
"A. Paglia" <apaglia@scana.com>
Tracking Status: None
"Amy M. Monroe" <amonroe@scana.com>
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"April R. Rice" <arice@scana.com>
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"Donna S. Griffin" <dgriffin@scana.com>
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"Jerry P. Harrison" <jharrison2@scana.com>
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"Johnnie Waller (johnnie.waller@scana.com)" <johnnie.waller@scana.com>
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"Julie M. Giles" <jmgiles@scana.com>
Tracking Status: None
"Kenneth J. Browne" <kjbrowne@santeecooper.com>
Tracking Status: None
"Tria Kibler" <tkkibler@scana.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	240	1/22/2009 4:27:46 PM
SUM-RAI-LTR-024.pdf	157744	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

SummerRAIsPEm Resource

From: Ravindra Joshi
Sent: Thursday, January 22, 2009 4:17 PM
To: SummerRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 024 RELATED TO SRP SECTION 06.04 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Attachments: SUM-RAI-LTR-024.doc

Hearing Identifier: Summer_COL_eRAIs
Email Number: 26

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5EB654ACA3A3)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 024 RELATED TO SRP SECTION 06.04 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Sent Date: 1/22/2009 4:17:23 PM
Received Date: 1/22/2009 4:17:24 PM
From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

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

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	3	1/22/2009 4:17:24 PM
SUM-RAI-LTR-024.doc	53242	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

January 22, 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. 024 RELATED TO SRP SECTION 06.04 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 301-415-6191or 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 301-415-6191or 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. 1758, 1691

Enclosure:
Request for Additional Information

Distribution:

Public	BHughes	CJackson	SGoetz
RidsNroDnrlNwe1	SCoffin	MComar	CAraguas
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RidsAcrsAcnwMailCenter	RidsRgn2MailCenter	Shie-Jeng Peng	
LGoldin			

NRO-002

OFFICE	SPCV/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	CJackson*	RJoshi*	MSpencer*	RJoshi*
DATE	12/12/08	12/12/08	1/9/09	1/9/09

*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: 06.04- Control Room Habitability

Application Section: FSAR Section 6.4

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

06.04-1
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.

06.04-2

a. 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.

b. 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.

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

Tables 2.2.207 to 209 lists 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.

d. 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.