

SummerRAIsPEm Resource

From: Patel, Chandu
Sent: Wednesday, September 09, 2009 3:52 PM
To: SummerRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 065 RELATED TO SRP SECTION 2.3.4 AND 2.3.5 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Attachments: SUM-RAI-LTR-065.doc

Chandu Patel

Hearing Identifier: Summer_COL_eRAIs
Email Number: 72

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Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 065 RELATED TO SRP SECTION 2.3.4 AND 2.3.5 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Sent Date: 9/9/2009 3:52:14 PM

Received Date: 9/9/2009 3:52:15 PM

From: Patel, Chandu

Created By: Chandu.Patel@nrc.gov

Recipients:

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

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SUM-RAI-LTR-065.doc	56314	

Options

Priority: Standard

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Sensitivity: Normal

Expiration Date:

Recipients Received:

September 9, 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. 065 RELATED TO
SRP SECTION 2.3.4 AND 2.3.5 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 301-415-3025 or at Chandu.Patel@nrc.gov via e-mail.

Sincerely,

/RA/

Chandu P. Patel, Senior 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 301-415-3025 or at Chandu.Patel@nrc.gov via e-mail.

Sincerely,

/RA/

Chandu P. Patel, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-027
52-028

eRAI Tracking No. 3574 and 3681

Enclosure:
Request for Additional Information

Distribution:

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NRO-002

OFFICE	RGS1/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	CLauron*	CPatel*	MSpencer*	CPatel*
DATE	8/14/09	8/14/09	8/17/091	9/09/09

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Virgil C. Summer Nuclear Station, Units 2 and 3
South Carolina Electric and Gas Company
Docket No. 52-027 and 52-028

SRP Section: 02.03.04 - Short Term Atmospheric Dispersion Estimates for Accident Releases

Application Section: Short Term Atmospheric Dispersion Estimates for Accident Releases

SRP Section: 02.03.05 - Long-Term Atmospheric Dispersion Estimates for Routine Releases

Application Section: Long-Term Atmospheric Dispersion Estimates for Routine Releases

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.03.04-2

The ARCON96 input and output files provided in response to NRC RAI 02.03.04-1 (dated July 20, 2009) used Building Area's of 2636 m² and 1805 m² for each of the source-receptor pairs for the Annex Building Access Door and Control Room HVAC Intake, respectively.

Please explain how the uses of these buildings areas are conservative assumptions.

Please also explain why a sigma z value of 10.20 was used for the Annex Building – Containment Shell pair, and a sigma z value of 7.00 was used for the Control Room – Containment Shell pair

02.03.05-1

RG 1.111 states that if a constant mean wind direction model (such as XOQDOQ) is used, airflow characteristics in the vicinity of the site should be examined to determine the spatial and temporal variations of atmospheric transport and diffusion conditions and the applicability of single station meteorological data to represent conditions between the site and the nearest receptors and conditions out to a distance of 50 miles from the site.

Please update FSAR Section 2.3.5 to include a discussion as to why the XOQDOQ straight-line trajectory model is appropriate to use out to a distance of 50 miles to estimate the χ/Q and D/Q values.

02.03.05-2

In regards to the χ/Q and D/Q values provided in FSAR Section 2.3.5.2, the text states that "only the results along the southeast and east-northeast radials are presented in Table 2.3-226."

Please revise the COL FSAR Section 2.3.5 to include tables of χ/Q and D/Q values out to 50 miles for each of the 16 standard directions as requested in SRP 2.3.5, Acceptance Criteria 6.B. These values are used to perform the population dose calculation for the radwaste system cost-benefit analysis required by Section II.D of Appendix I to Part 50.