

SummerRAIsPEm Resource

From: Comar, Manny
Sent: Tuesday, November 03, 2009 1:15 PM
To: SummerRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 71 RELATED TO SRP SECTION 19.58 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Attachments: SUM-RAI-LTR-071_RAI_3914.doc

Hearing Identifier: Summer_COL_eRAIs
Email Number: 76

Mail Envelope Properties (377CB97DD54F0F4FAAC7E9FD88BCA6D017767C022B)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 71 RELATED TO SRP SECTION 19.58 FOR THE VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Sent Date: 11/3/2009 1:15:13 PM

Received Date: 11/3/2009 1:15:15 PM

From: Comar, Manny

Created By: Manny.Comar@nrc.gov

Recipients:

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

Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	8	11/3/2009 1:15:15 PM
SUM-RAI-LTR-071_RAI_3914.doc		57338

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

November 3, 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. 071 RELATED TO
SRP SECTION 19.0 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 301-415-3863 or you may contact Chandu Patel, the lead project manager for the Virgil C Summer Nuclear Station Units 2 and 3 combined license application, at 301-415-3025.

Sincerely,

/RA/

Manny Comar, 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 301-415-3863 or you may contact Chandu Patel, the lead project manager for the Virgil C Summer Nuclear Station Units 2 and 3 combined license application, at 301-415-3025.

Sincerely,

/RA/

Manny Comar, 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. 3914

Enclosure:
Request for Additional Information

Distribution:

Public	BHughes	SHaggerty	DMcGovern
RidsNroDnrlNwe1	SCoffin	MComar	CPatel
RidsNroLAKGoldstein	TSimms	MSpencer	MPatterson
RidsOgcMailCenter	BAnderson	LMrowca	RJoshi
RidsAcrsAcnwMailCenter	SSchaffer	SGoetz	JSebrosky
RidsRgn2MailCenter			

NRO-002

OFFICE	CHPB/BC	NWE1/PM	NWE1/L-PM
NAME	LMrowca*	MComar*	CPatel*
DATE	10/23/09	10/26/09	10/28/09

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information No. 3914

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

SRP Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation
Application Section: 19.58

QUESTIONS from PRA Licensing, Operations Support and Maintenance Branch 1 (AP1000/EPR Projects) (SPLA)

RAI 19-77

Follow-up to NRC RAI No. 19-1

In your RAI response dated 7/14/2009, there is a table of external events. One column of this table is labeled "Applicable to Site? (Y/N)." The staff considers all events that are physically possible to be "applicable" and expects that they will be discussed. For example, if there is no dam at a higher elevation in the same watershed as the site, flooding due to dam failure would not apply. If such a dam exists, the staff would consider the event to be "applicable" even if the applicant can demonstrate that the frequency with which its failure could challenge the plant flooding design is negligible and no further analysis is required. Some of the assessments documented in the response are not consistent with this understanding. Please clarify what is meant by "applicable" in your response and ensure that the response is consistent with this meaning.

RAI 19-78

Follow-up to NRC RAI No. 19-1

The staff agrees that the events applicable to a site may be screened from further evaluation because they are bounded by the generic analysis documented in the referenced design certification. The remaining events applicable to a site may be screened from further evaluation because they are so infrequent that their contribution to risk is too small to affect the plant CDF or LRF, even if core damage is assumed to result. Other events that are considered to be less frequent than 1E-06 per year may also be screened if the conditional core damage probability is so low that the risk from all such sequences taken together is too small to affect CDF or LRF. Both the basis for screening events (data and logic used to screen the event) and an assessment of risk from events that cannot be screened (including appropriate references for numerical values) must be reported in the VCSNS Final Safety Analysis Report (FSAR) along with other PRA results and assumptions. Please document these PRA results in the FSAR per 10 CFR 52.79(c)(1). (Format and content expectations are documented in Appendix A to Section C.I.19 of RG 1.206, "Combined License Applications for Nuclear Power Plants.")

RAI 19-79

Follow-up to NRC RAI No. 19-1

Section 19.58 of the AP1000 Design Control Document (DCD) classifies tornadoes according to the enhanced Fujita scale. To allow direct comparison between the FSAR and the referenced DCD, please re-classify tornadoes reported in the FSAR using the enhanced Fujita scale.

RAI 19-80

Follow-up to NRC RAI No. 19-1

In Table 1 of the 7/14/2009 letter, FSAR Table 2.3-227 is cited, but the last table in FSAR Section 2.3 is numbered Table 2.3-226. Please revise the FSAR to include data on tornado activity near the VCSNS site. Provide the basis for concluding that a sufficient number of events have been observed over a large enough area to provide a representative sample.

RAI 19-81

Follow-up to NRC RAI No. 19-1

Table 1 of the 7/14/2009 letter states that extratropical storms observed within a 25-mile radius of the proposed site were evaluated. Since many of these storms affect a very large area and storm tracks are difficult to predict, the basis for this choice is unclear. The data within this limited area are very sparse, making the uncertainty associated with the reported value relatively large. For these reasons, the staff does not consider that this class of event has been shown to be bounded by the generic assessment.

Provide the basis for concluding that a sufficient number of events have been observed over a large enough area to provide a representative sample and confirm that the generic assessment is representative. Alternatively, provide the basis for screening this event from further analysis. Otherwise, extratropical storms cannot be screened from further analysis and a more detailed discussion of the risk associated with extratropical storms must be provided in Section 19.58 of the FSAR.