

HarrisRAIsPEm Resource

From: Manny Comar
Sent: Thursday, September 25, 2008 9:21 AM
To: HarrisRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 017 RELATED TO SRP SECTION 02.03.13 FOR THE HARRIS UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Attachments: HAR-RAI-LTR-017.doc

Hearing Identifier: HarrisCOL_eRAIs
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Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 017 RELATED TO SRP SECTION 02.03.13 FOR THE HARRIS UNITS 2 AND 3 COMBINED LICENSE APPLICATION
Sent Date: 9/25/2008 9:20:30 AM
Received Date: 9/25/2008 9:20:32 AM
From: Manny Comar

Created By: Manny.Comar@nrc.gov

Recipients:
"HarrisRAIsPEm Resource" <HarrisRAIsPEm.Resource@nrc.gov>
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Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

September 25, 2008

James Scarola
Senior Vice President and
Chief Nuclear Officer
PO Box 1551
411 Fayetteville Street Mall
Raleigh NC 27602

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 017 RELATED TO
SRP SECTION 02.04.13 FOR THE HARRIS UNITS 2 AND 3 COMBINED
LICENSE APPLICATION

Dear Mr. Scarola:

By letter dated February 18, 2008, Progress Energy 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.

Sincerely,

/RA/

Manny Comar, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023
ERAI Tracking No.1172

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.

Sincerely,

/RA/

Manny Comar, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023
ERAI Tracking No. 1172

Enclosure:
Request for Additional Information

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NRO-002

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NAME	RRaione*	BHughes*	SBrock*	MComar*
DATE	9/3/08	9/10/08	9/15/08	9/25/08

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 1172

9/25/2008

Shearon Harris

Progress Energy Carolinas, Inc.

Docket No. 52-022 and 52-023

SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters

Application Section: 2.4.13

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.13-1

The staff requests that the applicant provide a description of the process used to evaluate the conceptual site model of the subsurface environment. The description should include how this process was used as the basis for the calculation of the radionuclide transport in FSAR Section 2.4.13, and how the most conservative conceptual model from the set of plausible conceptual models was applied for the radionuclide transport analysis. Staff also request that the applicant explain how the conservative assumptions employed in the conceptual site model compensate for observed spatial and temporal variability and the resulting uncertainty in describing the sub-surface radionuclide transport analysis.

02.04.13-2

Values for Kd used in the assessment of the impact of the release of radioactive liquid effluent to the groundwater need to be measured from site specific sediments and groundwater. Explain why using literature values of Kd is consistent with the requirements for site-specific measurements in 10 CFR 100.20(C)(3).

02.04.13-3

Explain how effective porosity values used in the scenarios are representative of the fractured bedrock conditions at the site with implications for contaminant transport. The effective porosity values need to be conservative for the pathline from the tank release location to the receptor location (e.g. surface water body or well location). Spatial variability in effective porosity needs to be considered as the applicant has noted that the fracture density (and therefore effective porosity) could be higher near diabase dikes.