PMHarrisCOL PEmails

From: Tanya Simms
Sent: Monday, September 22, 2008 4:55 PM
To: 'robert.kitchen@pgnmail.com'; 'david.waters@pgnmail.com'; 'tillie.wilkins@pgnmail.com'
Cc: Manny Comar; PMHarrisCOL PEmails
Subject: RAI Letter No. 014 Related to SRP Section 9.2.1 for Harris Units 2 and 3
Attachments: HAR-RAI-LTR-014.pdf

To All,

Attached is RAI Letter No. 014 related to SRP Section 9.2.1 for Harris Units 2 and 3. The ADAMS accession number is ML082661022.

Tanya Simms
Project Manager
New Reactor Licensing
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852-2738
301-415-1387
Tanya.Simms@nrc.gov

Hearing Identifier: ShearonHarris_COL_Public
Email Number: 92

Mail Envelope Properties (C4A4C9A16294FB4CBA5A36312D05FFAC0ABBC7F874)

Subject: RAI Letter No. 014 Related to SRP Section 9.2.1 for Harris Units 2 and 3
Sent Date: 9/22/2008 4:55:06 PM
Received Date: 9/22/2008 4:58:24 PM
From: Tanya Simms

Created By: Tanya.Simms@nrc.gov

Recipients:
"Manny Comar" <Manny.Comar@nrc.gov>
Tracking Status: None
"PMHarrisCOL PEmails" <PMHarrisCOL.PEmails@nrc.gov>
Tracking Status: None
"'robert.kitchen@pgnmail.com'" <robert.kitchen@pgnmail.com>
Tracking Status: None
"'david.waters@pgnmail.com'" <david.waters@pgnmail.com>
Tracking Status: None
"'tillie.wilkins@pgnmail.com'" <tillie.wilkins@pgnmail.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	432	9/22/2008 4:58:24 PM
HAR-RAI-LTR-014.pdf	144539	

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

HarrisRAIsPEm Resource

From: Tanya Simms
Sent: Monday, September 22, 2008 2:52 PM
To: HarrisRAIsPEm Resource
Subject: Request for Additional Information Letter No. 014 Related To SRP Section 09.02.01 for the Harris Units 2 and 3 Combined License Application
Attachments: HAR-RAI-LTR-014.doc

Hearing Identifier: HarrisCOL_eRAIs
Email Number: 14

Mail Envelope Properties (C4A4C9A16294FB4CBA5A36312D05FFAC0ABBC7F86F)

Subject: Request for Additional Information Letter No. 014 Related To SRP Section 09.02.01 for the Harris Units 2 and 3 Combined License Application
Sent Date: 9/22/2008 2:51:57 PM
Received Date: 9/22/2008 2:51:58 PM
From: Tanya Simms

Created By: Tanya.Simms@nrc.gov

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

Post Office: HQCLSTR02.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	3	9/22/2008 2:51:58 PM
HAR-RAI-LTR-014.doc	56826	

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

September 22, 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. 014 RELATED TO SRP SECTION 09.02.01 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 301-415-1387 or you may contact Manny Comar, the lead project manager for the Harris combined license at 301-415-3863.

Sincerely,

/**RA**/

Tanya Simms, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-1387 or you may contact Manny Comar, the lead project manager for the Harris combined license at 301-415-3863.

Sincerely,

/**RA**/

Tanya Simms, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023
ERAI Tracking No. 1002

Enclosure:
Request for Additional Information

Distribution:

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NRO-002

OFFICE	SBPA/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	JSegala*	TSimms*	SBrock*	MComar*
DATE	8/12/08	8/25/08	9/04/08	9/22/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information No. 1002 Revision 0
Shearon Harris
Progress Energy
Docket No. 52-022 and 52-023
SRP Section: 09.02.01 - Station Service Water System
Application Section: 09.02.11 - Raw Water System

QUESTIONS for Balance of Plant Branch 1 (SBPA)

09.02.01-2

In order for the staff to confirm compliance with GDC 4 and proper implementation of policy considerations relative to regulatory treatment of non-safety systems (RTNSS), additional information is needed to identify and address the potential effects of raw water system (RWS)-related failures on safety-related and RTNSS equipment. The staff also requests that the applicant establish plant-specific inspection, test, analyses, and acceptance criteria (ITAAC) and availability controls for the RWS as appropriate. Revisions to the Final Safety Analysis Report (FSAR) and other parts of the application (as applicable) should be provided to facilitate the staff's evaluation.

09.02.01-3

The RWS is relied upon for providing defense-in-depth heat removal for the reactor and spent fuel by supplying makeup water for the SWS cooling tower basins. Likewise, the RWS may also be needed for RTNSS considerations during reduced reactor coolant system inventory conditions. The staff's evaluation confirms that the RWS is capable of performing its defense-in-depth and RTNSS functions (as applicable). While Section 9.2.11 of the FSAR generally discusses the RWS, a clearly defined RWS design basis for assuring the defense-in-depth and RTNSS capabilities for the most limiting situations was not provided and measures were not described for assuring the functional capability of the RWS over time. For example, the minimum RWS flow rate, water inventory, temperature limitations, and corresponding bases for providing SWS makeup for the two Harris units were not described; the impact of potential failures associated with the shared pump house and structures, systems and components therein on single and dual unit operation were not discussed; and the suitability of RWS materials for the plant-specific application and measures being implemented to resolve vulnerabilities and degradation mechanisms to assure RWS functionality over time were not addressed. Because the applicant did not adequately describe the RWS design basis and address other review considerations specified in Section III of SRP Sections 9.2.1 and 9.2.5 that are relevant for assuring defense-in-depth and RTNSS functional capabilities, the staff is unable to confirm compliance with defense-in-depth and RTNSS policy considerations. The staff requests that the applicant provide additional information to fully describe the RWS design basis and to address relevant considerations specified by SRP Sections 9.2.1 and 9.2.5, such as minimum net positive suction head requirements, materials considerations, design provisions, and measures being implemented to assure the functional capability of the RWS over time, including plant-specific ITAAC and availability control considerations as appropriate. Additional guidance for addressing these SRP areas of review is provided in Sections CI.9.2.1 and CI.9.2.5 of Regulatory Guide (RG) 1.206. The staff also requests that the applicant provide markups of the FSAR and other parts of the application to facilitate the staff's evaluation.

09.02.01-4

Section 9.2.11.2.1, “General Description,” refers to Figures 10.4-201 and 10.4-202 for a flow diagram of the RWS. The staff noted that Figure 10.4-202, Revision 0, indicates that it is a continuation from Figure 10.4.5-1. This is incorrect in that the continuation is from Figure 10.4-201. Figure 10.4-202, Revision 0, needs to be corrected accordingly.

09.02.01-5

As specified by 10 CFR 20.1406, COL applicants are required to describe how facility design and procedures for operation will minimize the generation of radioactive waste and contamination of the facility and environment, and facilitate eventual plant decommissioning. Although the RWS has no interconnections with any systems that contain radioactive fluids, industry experience has shown that this alone may not be sufficient to prevent the RWS from becoming contaminated. For example, unplanned leaks or release of contaminated fluids as a result of component failures or transport, drainage problems in contaminated areas, and the migration of contamination through soils and other porous barriers over time have caused systems and areas of the plant that are not directly connected with contaminated systems to become contaminated. Therefore, additional information is needed to describe design provisions and other measures that will be implemented to satisfy the requirements specified by 10 CFR 20.1406 requirements, including measures that will be implemented to monitor the RWS for contamination and corrective actions that will be taken to eliminate any radioactive contamination that is identified. RG 4.21, “Minimization of Contamination and Radioactive Waste Generation: Life-Cycle Planning,” provides guidance that may be used for addressing the requirements specified by 10 CFR 20.1406.