PMHarrisCOL PEmails

From: Tanya Simms
Sent: Tuesday, September 16, 2008 7:52 AM
To: 'robert.kitchen@pgnmail.com'; 'david.waters@pgnmail.com'; 'tillie.wilkins@pgnmail.com'
Cc: Manny Comar; PMHarrisCOL PEmails
Subject: Draft RAIs for Harris Units 2 and 3
Attachments: Harris draft RAI 1002.pdf; Harris Draft RAI 482.pdf; Harris draft RAI 736.pdf; harris draft RAI 983.pdf

To All,

Attached is Draft RAI 482 related to SRP Section 9.3.3 for Harris Units 2 and 3.
Attached is Draft RAI 736 related to SRP Section 9.5.1 for Harris Units 2 and 3.
Attached is Draft RAI 983 and Draft RAI 1002 related to SRP Section 9.2.1 for Harris Units 2 and 3.

If no response is heard by close of business September 19, 2008, the final RAI will be issued.

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Subject: Draft RAIs for Harris Units 2 and 3
Sent Date: 9/16/2008 7:52:13 AM
Received Date: 9/16/2008 7:52:14 AM
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Files	**Size**	**Date & Time**
MESSAGE	659	9/16/2008 7:52:14 AM
Harris draft RAI 1002.pdf	17789	
Harris Draft RAI 482.pdf	14034	
Harris draft RAI 736.pdf	14883	
harris draft RAI 983.pdf	14051	

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

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 from Balance of Plant Branch 1 (SBPA)

09.02.01-***

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-***

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-***

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-***

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.

Request for Additional Information No. 482 Revision 0
Shearon Harris
Progress Energy Carolinas, Inc.
Docket No. 52-022 and 52-023
SRP Section: 09.03.03 - Equipment and Floor Drainage System
Application Section: 9.2.9

QUESTION from Balance of Plant Branch 1 (SBPA)

09.03.03-***

In COL FSAR 9.2.9.2.2, the applicant provides a description of the waste water retention basin to address COL Information Item 9.2.11.2. The information provided does not include a description of basin transfer pumps, water level instrumentation and radiation monitoring in the waste water retention basin. These design features were included and approved in the AP1000, Rev. 15, design certification document, as documented in NUREG-1793, "Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design." In Rev. 16, Westinghouse removed all references to the waste water retention basin from the DCD and identified it as COL information in Section 9.2.11.2. Therefore, please provide a description of basin transfer pumps, water level instrumentation and radiation monitoring in the waste water retention basin.

Request for Additional Information No. 736 Revision 0
Shearon Harris
Progress Energy Carolinas, Inc.
Docket No. 52-022 and 52-023
SRP Section: 09.05.01 - Fire Protection Program
Application Section: 09.05.01

QUESTIONS from Fire Protection Team (SFPT)

09.05.01-***

FSAR Subsection 13.1.2.1.3.9 states Supervisor - Fire Protection talks to Harris Nuclear Plant site Vice President via the Manager - Harris Engineering and Support; however, nothing is mentioned about communications via the Supt-Design Eng Support as shown on Figure 13.1-201. Figure 13.1-201 does not appear to match 13.1.2.1.3.9 – please make necessary corrections.

09.05.01-***

Clearly identify the role(s), responsibilities, educational requirements, and experience/knowledge requirements for the Lead Engineer - Fire Protection Program including the interaction between the Supervisor - Fire Protection.

State that the Supervisor - Fire Protection will also meet the educational and experience/knowledge requirements found in RG 1.189 Rev. 1 Position C.1.1 and C.1.6.

09.05.01-***

FSAR Section 9.5.1.6 incorrectly refers to FSAR subsections 9.5.1.9.2 and 9.5.1.9.7 for the Personnel Qualification and Training requirements. The applicant is to correct the references of 9.5.1.9.2 and 9.5.1.9.7 to 9.5.1.8.2 and 9.5.1.8.7 respectively.

Request for Additional Information No. 983 Revision 0
Shearon Harris
Progress Energy
Docket No. 52-022 and 52-023
SRP Section: 09.02.01 - Station Service Water System
Application Section: 9.2.1, Service Water System

QUESTION from Balance of Plant Branch 1 (SBPA)

09.02.01-***

The cooling capability of the SWS cooling towers for the Harris units can be adversely affected by interactions that exist between the two cooling towers. Adverse interactions can occur due to localized atmospheric influences caused by siting and relative proximity considerations. Because this is not a factor for single cooling towers, it is not addressed by the AP1000 DCD. Therefore, additional information is needed to address potential adverse interactions between the cooling towers for the two units and to describe in the Harris FSAR any additional design provisions that are necessary, as appropriate.