ArevaEPRDCPEm Resource

From: BRYAN Martin (EXTERNAL AREVA) [Martin.Bryan.ext@areva.com]
Sent: Monday, September 27, 2010 2:33 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (AREVA); ROMINE Judy (AREVA); BENNETT Kathy (AREVA); NOXON David (AREVA); RYAN Tom (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 436, FSAR Ch. 11, OPEN ITEM
Attachments: RAI 436 Response US EPR DC.pdf

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 436 Response US EPR DC.pdf," provides the schedule for technically correct and complete responses to these questions.

The following table indicates the respective pages in the response document, "RAI 436 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 436 — 11.02-26	2	3
RAI 436 — 11.05-26	4	4
RAI 436 — 11.05-27	5	5

The schedule for technically correct and complete responses to these questions is provided below.

Question #	Response Date
RAI 436 — 11.02-26	November 22, 2010
RAI 436 — 11.05-26	November 1, 2010
RAI 436 — 11.05-27	November 1, 2010

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Friday, August 27, 2010 5:47 PM
To: ZZ-DL-A-USEPR-DL
Cc: Dehmel, Jean-Claude; Roach, Edward; Patel, Jay; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 436 (4849, 4968),FSAR Ch. 11, OPEN ITEM

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on August 17, 2010, and on August 27, 2010, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a date for receipt of this

information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

Thanks,
Getachew Tesfaye
Sr. Project Manager
NRO/DNRL/NARP
(301) 415-3361

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 2056

Mail Envelope Properties (BC417D9255991046A37DD56CF597DB7107B2BEE9)

Subject: Response to U.S. EPR Design Certification Application RAI No. 436, FSAR Ch. 11, OPEN ITEM
Sent Date: 9/27/2010 2:33:20 PM
Received Date: 9/27/2010 2:34:45 PM
From: BRYAN Martin (EXTERNAL AREVA)

Created By: Martin.Bryan.ext@areva.com

Recipients:
"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
"ROMINE Judy (AREVA)" <Judy.Romine@areva.com>
Tracking Status: None
"BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com>
Tracking Status: None
"NOXON David (AREVA)" <David.Noxon@areva.com>
Tracking Status: None
"RYAN Tom (AREVA)" <Tom.Ryan@areva.com>
Tracking Status: None
"Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov>
Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	2211	9/27/2010 2:34:45 PM
RAI 436 Response US EPR DC.pdf	22181	

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

Response to

Request for Additional Information No. 436(4849, 4968), Revision 1

8/27/2010

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 11.02 - Liquid Waste Management System
SRP Section: 11.05 - Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems

Application Sections: 11.2 & 11.5

QUESTIONS for Health Physics Branch (CHPB)

Question 11.02-26:

OPEN ITEM

Follow-up to Open Item RAI 359, Question 11.02-18 (Re: Supplement 1 response)

Under RAI 359, Question 11.02-18, the staff noted that FSAR Tier 2, Rev. 1, Section 11.2.3.8 commitment to RG 1.143 for the LWMS was unsubstantiated in the context of the requirements identified in FSAR, Tier 2, Rev. 1, Chapter 17. The applicant was requested to either revise the cited topical report (Appendix B of Areva Topical Report ANP-10266A) by including RG 1.143 in the list of documents, or describe in FSAR Tier 2, Section 11.2.3.8 the elements of QA program and identify related COL information item(s) that address the design, fabrication, procurement, and installation of the LWMS based on the guidance of RG 1.143 for permanently installed and skid-mounted systems. The RAI requested that parallel revisions be made in FSAR Section 11.3 for the GWMS and FSAR Section 11.4 for the SWMS. In a response, dated May 6, the applicant proposed the following changes to FSAR Section 11.2.3.8:

"*The quality assurance program governing design, fabrication, procurement, and installation of the liquid waste storage and processing systems conform to RG 1.143, as indicated in Table 3.2.2-1. Implementation of the quality assurance program is described in Chapter 17*."

The applicant proposed similar updates for FSAR Sections 11.3.3.7 (GWMS) and 11.4.6 (SWMS).

Based on a CHPB and QVBA staff review of the May 6 response, the applicant is requested to address and resolve the following items in the respective FSAR sections:

1. In stating that the implementation of the QA program is described in FSAR Section 17, the applicant is requested to make a clear distinction among those elements of the QA program that are mandated under the requirements of Part 50, Appendix B, as identified in FSAR Table 3.2.2-1, versus those that would be implemented under RG 1.143 which should be described in FSAR Section 11.2 for the LWMS, FSAR Section 11.3 for the GWMS, and FSAR Section 11.4 for the SWMS.
2. In describing the implementation of the QA program that would be implemented under RG 1.143, the applicant is requested to endorse the following industry guidance: ANSI/ANS-55-6-1993 (Reaffirmed May 14, 2007) for the LWMS; ANSI/ANS-55-4-1993 (Reaffirmed May 14, 2007) for the GWMS; and ANSI/ANS-40-37-2009 for the SWMS. Note that RG 1.143 and the respective SRP sections make reference to these ANSI/ANS industry standards.
3. For the permanently installed LWMS, as described in the FSAR Section 11.2, the applicant is requested to clarify those aspects of the RG 1.143 QA program that would be the responsibility of the COLA for the development of procurement specifications, and for confirming the proper fabrication and installation of the LWMS.
4. For skid mounted-LWMS and SWMS, described as COLA options in FSAR Sections 11.2.2 and 11.4.1, the applicant is requested to clarify those aspects of the RG 1.143 QA program that would be the responsibility of the COLA for the design and development of procurement specifications, proper fabrication, and for confirming the operational interface of supplemental skid-mounted processing subsystems with the permanently installed LWMS and SWMS.

5. For the permanently installed GWMS, as described in the FSAR Section 11.3, the applicant is requested to clarify those aspects of the RG 1.143 QA program that would be the responsibility of the COLA for the development of procurement specifications and in confirming the proper fabrication and installation of the GWMS against those portions of the GWMS system that fall under the requirements of Part 50, Appendix B QA program as identified in FSAR Table 3.2.2-1.

Response to Question 11.02-26:

A response to this question will be provided by November 22, 2010.

Question 11.05-26:

OPEN ITEM

Follow-up to Open Item 405, Question 11.05-22 (Re: Supplement 1 response)

The following presents comments based on joint reviews conducted by CHPB and CTSB staff because the response, in part, invokes technical specifications (TS). The applicant is requested to address and resolve the following items in the FSAR:

1. Regarding the proposed update to FSAR Section 11.5.4.1, the applicant is requested to include in the last paragraph the estimated NG concentration in the MSL corresponding to a SG tube leak rate of 150 gpd, as was done for N-16 concentration – see 2nd paragraph. This information is contained in the associated calculation package previously reviewed by the staff.
2. The applicant is requested to confirm that the supporting descriptive information on the MLS radiation monitoring system used to monitor radioactivity in the MSL will be updated in FSAR Table 11.5-1 in light of the response to this supplemental and the initial RAI.
3. CHPB and CTSB staff find the response to item 5 of this RAI not acceptable. The reliance on a TS is not acceptable because TS do not include design information. As was noted in the initial response, Areva acknowledged that some design features and operating characteristics of the MSL radiation monitoring system cannot be defined at this stage of the design certification. As a result, the staff requested Areva to include a COL information item that places the responsibility on the COL applicant to provide supporting design information describing how plant-specific design features, installation, and implementation of operating procedures for this system will address compliance with the SG TS leakage rate of 150 gpd under U.S. EPR TS 16.3.4.12.d. Given that this information is contained in the associated calculation package previously reviewed by the staff, the applicant is requested to include in FSAR Section 11.5.4.1, as a COL item or as adequately descriptive information, the pertinent technical details that a COLA needs to be aware of in finalizing the design and determining the response characteristics of the MLS radiation monitoring system taking into consideration plant-specific conditions.

Response to Question 11.05-26:

A response to this question will be provided by November 1, 2010.

FSAR Impact:

Question 11.05-27:

OPEN ITEM

Follow-up to Open Item RAI 405, Question 11.05-25 (Re: Supplement 1 response)

While the staff confirms the derived dose result presented in RAI 405 Supp. 1, Question 11.05-25, the response is deemed partly responsive to the staff's question. The response notes that the FSAR will not be changed as a result of this question. The staff disagrees with this conclusion. FSAR Section 11.3.3.6 should provide and describe the essential parameters and assumptions supporting the analysis and its stated dose result. The following information and parameters are missing in the currently proposed revision of FSAR Section 11.3.3.6:

1. a citation to FSAR Table 11.1-2 for the assumed TS DE Xe-133 concentration of 210 uCi/g, as adjusted upward by 10% to 230 uCi/g for this analysis;
2. basis and value for the degasification rate of 20 kg/sec.;
3. basis and value for the X/Q of 1.0E-03 sec/m^3;
4. basis and value for the DE Xe-133 dose conversion factor; and
5. a summary of the underlying accident assumptions using descriptions given in the first and fourth bullets of the RAI response but not included in the FSAR mark-up.

The applicant is requested to revise the response, commit to include in FSAR Section 11.3.3.6 the information and parameters described above, and submit a proposed markup of FSAR Section 11.3.3.6.

Response to Question 11.05-27:

A response to this question will be provided by November 1, 2010.