ArevaEPRDCPEm Resource

From: BRYAN Martin (EXTERNAL AREVA) [Martin.Bryan.ext@areva.com]
Sent: Thursday, June 24, 2010 2:10 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (AREVA); ROMINE Judy (AREVA); BENNETT Kathy (AREVA); CORNELL Veronica (EXTERNAL AREVA); VAN NOY Mark (EXTERNAL AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 400, FSAR Ch. 3, OPEN ITEM
Attachments: RAI 400 Response US EPR DC.pdf

Getachew,

Attached please find the AREVA NP Inc. (AREVA NP) response to the subject request for additional information (RAI). The attached file, "RAI 400 Response U.S. EPR DC.pdf" provides a technically correct and complete response Question 03.07.04-07.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the response to RAI 400 Question 03.07.04-07.

The following table indicates the respective pages in the response document, "RAI 400 Response U.S. EPR DC," that contain the AREVA NP response to the subject questions.

Question #	Start Page	End Page
RAI 400 — 03.07.04-07	2	2

This completes the formal AREVA NP response to RAI 400. There are no additional questions associated with this RAI.

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
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From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Wednesday, May 26, 2010 12:31 PM
To: ZZ-DL-A-USEPR-DL
Cc: Tabatabai, Sarah; Karas, Rebecca; Patel, Jay; Miernicki, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 400(4708), FSAR Ch. 3, OPEN ITEM

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on May 5, 2010, and on March 26, 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 question in this RAI is an OPEN ITEM in the safety evaluation report for Chapter 3, Group 1 sections in Phases 2 and 3 reviews. 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: 1612

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Subject: Response to U.S. EPR Design Certification Application RAI No. 400, FSAR Ch. 3, OPEN ITEM
Sent Date: 6/24/2010 2:10:22 PM
Received Date: 6/24/2010 2:10:30 PM
From: BRYAN Martin (EXTERNAL AREVA)

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

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Files	**Size**	**Date & Time**
MESSAGE	2327	6/24/2010 2:10:30 PM
RAI 400 Response US EPR DC.pdf	123158	

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

Response to

Request for Additional Information No. 400 (4708), Revision 1

5/26/2010

U.S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 03.07.04 - Seismic Instrumentation
Application Section: 3.7.4

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)

Question 03.07.04-7:

OPEN ITEM

ITAAC Item 2.1, listed in FSAR Tier 1, Table 2.4.7-1 states that analyses are to be performed to determine that the location of the SMS equipment as described in FSAR Tier 1, Section 2.1. However, the staff reviewed FSAR Tier 1, Section 2.1 and was not able to find the description of the SMS locations. Please specify the correct FSAR Tier 1 Section which provides the location of the SMS equipment.

Response to Question 03.07.04-7:

Seismic monitoring system (SMS) in-structure instrumentation locations are described in U.S. EPR FSAR Tier 1, Section 2.4.7, Subsection 2.1. U.S. EPR FSAR Tier 1, Table 2.4.7-1, Item 2.1 will be revised to more clearly describe the reference.

FSAR Impact:

U.S. EPR FSAR Tier 1, Table 2.4.7-1 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR Final Safety Analysis Report Markups

Table 2.4.7-1—Seismic Monitoring System ITAAC

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	The location of the SMS equipment is as described in Section 2.4.7~~1~~, Subsection 2.1.	a. Analyses will be performed to determine the location of the SMS equipment.~~, and inspections will be performed of the location of the SMS equipment.~~ b. Inspections will be performed to verify the location of the SMS equipment is per the analyses.	~~The SMS equipment is located as per the analyses.~~ a. An analysis report exists that determines the location of the SMS equipment. b. The SMS equipment is located as per the analyses.
3.1	The SMS system can compute the CAV and provides a display of the CAV in the MCR.	a. Type tests, tests, analyses, or a combination of analyses and tests will be performed on the SMS. b. Inspections will be performed for the existence or retrieve-ability of a display of CAV in the MCR.	a. The SMS can compute the CAV. b. Indication and alarms from CAV can be retrieved in the MCR.
3.2	The SMS has sufficient dynamic range.	Type tests, analyses or a combination of type tests and analyses of the SMS equipment will be performed.	The SMS has a dynamic range of at least 1000:1 zero-to-peak and is able to record at least 1.0 g zero-to-peak.
3.3	The SMS has sufficient bandwidth.	Type tests, analyses or a combination of type tests and analyses of the SMS equipment will be performed.	The SMS has bandwidth of at least 0.2 to 50 Hertz.
3.4	The SMS has a sufficient sampling rate.	Type tests, analyses or a combination of type tests and analyses of the SMS equipment will be performed.	The SMS has a sample rate of at least 200 samples per second in each of the three directions.
3.5	The SMS has a sufficient trigger rate.	Type tests, analyses or a combination of type tests and analyses of the SMS equipment will be performed.	The SMS has an actuating level that is adjustable and within the range of 0.001g and 0.02g.
4.1	The SMS backup battery has sufficient capacity to power its instruments for continuous operation for a period of time.	Type tests, analyses or a combination of type tests and analyses of the SMS equipment will be performed.	The SMS has a backup battery that has a capacity for a minimum of 25 minutes of system operation.

03.07.04-7