

ArevaEPRDCPEm Resource

From: WELLS Russell (AREVA) [Russell.Wells@areva.com]
Sent: Wednesday, March 30, 2011 3:16 PM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 477 (5442), FSAR Ch. 3
Attachments: RAI 477 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 477 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the 1 question is not provided.

The following table indicates the respective pages in the response document, "RAI 477 Response US EPR DC.pdf" that contain AREVA NP's responses to the subject question.

Question #	Start Page	End Page
RAI 477 — 03.09.06-18	2	3

A complete answer is not provided for the 1 question. The schedule for technically correct and complete responses to this question is provided below.

Question #	Response Date
RAI 477 — 03.09.06-18	June 6, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

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Russell.Wells@Areva.com

From: Tesfaye, Getachew [<mailto:Getachew.Tesfaye@nrc.gov>]

Sent: Monday, March 07, 2011 8:19 PM

To: ZZ-DL-A-USEPR-DL

Cc: Scarbrough, Thomas; Terao, David; Miernicki, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 477 (5442), FSAR Ch. 3

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on March 4, 2011, and on the same day on March 4, 2011, 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: 2780

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Subject: Response to U.S. EPR Design Certification Application RAI No. 477 (5442),
FSAR Ch. 3
Sent Date: 3/30/2011 3:15:54 PM
Received Date: 3/30/2011 3:16:01 PM
From: WELLS Russell (AREVA)

Created By: Russell.Wells@areva.com

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Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	2279	3/30/2011 3:16:01 PM
RAI 477 Response US EPR DC.pdf		62960

Options

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

Response to

Request for Additional Information No. 477 (5442), Revision 0

3/07/2011

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 03.09.06 - Functional Design Qualification and Inservice Testing

Programs for Pumps, Valves, and Dynamic Restraints

Application Section: 3.9.6

QUESTIONS for Component Integrity, Performance, and Testing Branch 1

(AP1000/EPR Projects) (CIB1)

Question 03.09.06-18:

On August 31, 2010, AREVA submitted Revision 2 to the Final Safety Analysis Report (FSAR) for Design Certification of the U.S. EPR. The revised EPR FSAR incorporates the responses to Requests for Additional Information (RAIs) 3.9.6-15, 16, and 17 on the functional design, qualification, and inservice testing (IST) programs for pumps, valves, and dynamic restraints for the EPR design. In reviewing Revision 2 to the EPR FSAR for its incorporation of the RAI responses, the NRC staff has identified several clarifications that need to be made to EPR FSAR Tier 2, Section 3.9.6, "Functional Design, Qualification, and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints," to accurately describe the functional design, qualification, and IST programs for pumps, valves, and dynamic restraints. The clarifications are as follows:

- a. Table 3.9.6-2, "Inservice Valve Testing Program Requirements," in EPR FSAR Tier 2 identifies the valves within the IST program for the EPR design, including valve and actuator type, ASME Code Class, ASME OM Code Category, active or passive valve function, safety position, and IST required tests and frequency. The table should clarify the requirement for exercise tests and stroke-time tests to be performed for active power-operated valves. The second paragraph of EPR FSAR Tier 2, Section 3.9.6.3, "Inservice Testing Program for Valves," should also be clarified regarding exercise and stroke-time testing. Table 3.9.6-2 should be revised to identify all check valves within the IST program as active valves. In addition to other valves within the IST program, the table should indicate that check valves also receive periodic position indication verification if equipped with a remote position indicator. In addition, the table should clarify the applicable IST requirements for Motor-Operated Valve 30JEW50AA021.
- b. Revisions 0 and 1 to EPR FSAR Tier 2, Section 3.9.6 had specified that the EPR will be designed to provide accessibility to perform IST activities. This provision appears to have been inadvertently deleted from Revision 2 to the EPR FSAR. FSAR Tier 2, Section 3.9.6.4.1, "Snubber Installation," includes a provision to provide accessibility to perform IST activities related to dynamic restraints. The provision for accessibility to perform IST activities related to pumps and valves should be reinstated in the EPR FSAR.
- c. Reference 15 on page 3.9-121 of the EPR FSAR Tier 2 should include the date (September 18, 2008) for the supplement to the NRC safety evaluation report on the Joint Owners Group (JOG) Motor-Operated Valve Periodic Verification Program. Also, the spelling of valve should be corrected in Reference 15.
- d. Specific aspects of the description of the functional design, qualification, and IST programs for pumps, valves, and dynamic restraints in Revision 2 to the EPR FSAR should be clarified. First, EPR FSAR Tier 2, Section 3.9.6 states on page 3.9-97 that the IST program incorporates operating experience as described in Section 3.9.6.3 on valves. However, operating experience should be considered in developing the IST program for all applicable components. Second, the discussion of IST activities in the first paragraph of EPR FSAR Tier 2, Section 3.9.6.1, "Functional Design and Qualification of Pumps, Valves, and Dynamic Restraints," on page 3.9-98 should be moved to another section. Third, the first paragraph of Section 3.9.6.1.1.1, "Motor-Operated Valve (MOV) Design and Qualification," on page 3.9-99 provides overall qualification provisions while Section 3.9.6.1.1.2, "Other Power-Operated Valve (POV) Design and Qualification," does not include similar provisions. Fourth, the itemized

bullets at the top of page 3.9-103 address IST program intervals in Section 3.9.6.2, "Inservice Testing Program for Pumps." EPR FSAR Tier 2, Section 3.9.6.3, "Inservice Testing Program for Valves," does not include similar IST program interval provisions.

Response to Question 03.09.06-18:

A response to this question will be provided by June 6, 2011.