

ArevaEPRDCPEm Resource

From: WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]
Sent: Friday, May 20, 2011 4:04 PM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); CORNELL Veronica (EXTERNAL AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 211, FSAR Ch. 3, Supplement 3
Attachments: RAI 211 Supplement 3 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 6 of the 10 questions of RAI No. 211 on May 26, 2009. AREVA NP submitted Supplement 1 to the response on July 13, 2009, to address 3 of the remaining 4 questions. On August 26, 2009, AREVA NP submitted Supplement 2 to provide a final response to question 03.03.02-03.

The final response to Question 03.08.01-31 was submitted in RAI 211 on May 26, 2009. As a result of the AREVA NP commitment to RG 1.90, Revision 1, the previously submitted final response to Question 03.08.01-31 has been superseded by the responses to RAI 448 Questions 03.08.01-50 and 03.08.01-53.

The attached file, "RAI 211 Supplement 3 Response US EPR DC.pdf" provides a technically correct, complete, and revised final response to Question 03.08.01-31.

The following table indicates the respective pages in the response document, RAI 211 Supplement 3 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 211 — 03.08.01-31	2	2

This concludes the formal AREVA NP response to RAI 211, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: Pederson Ronda M (AREVA NP INC)
Sent: Wednesday, August 26, 2009 7:04 PM
To: 'Tesfaye, Getachew'
Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); SLIVA Dana (AREVA NP INC); VAN NOY Mark (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 211, FSAR Ch. 3, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 6 of the 10 questions of RAI No. 211 on May 26, 2009. AREVA NP submitted Supplement 1 to the response on July 13, 2009, to address 3 of the remaining questions. The attached file, "RAI 211 Supplement 2 Response US EPR DC.pdf" provides technically correct and complete responses to the remaining question, as committed.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which supports the response to RAI 211 Question 03.03.02-3.

The following table indicates the respective pages in the response document, RAI 211 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 211 — 03.03.02-3	2	5

This concludes the formal AREVA NP response to RAI 211, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

Ronda Pederson

ronda.pederson@areva.com

Licensing Manager, U.S. EPR Design Certification

AREVA NP Inc.

An AREVA and Siemens company

3315 Old Forest Road

Lynchburg, VA 24506-0935

Phone: 434-832-3694

Cell: 434-841-8788

From: Pederson Ronda M (AREVA NP INC)

Sent: Monday, July 13, 2009 5:42 PM

To: 'Getachew Tesfaye'

Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); VAN NOY Mark (EXT)

Subject: Response to U.S. EPR Design Certification Application RAI No. 211, FSAR Ch. 3, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 6 of the 10 questions of RAI No. 211 on May 26, 2009. The attached file, "RAI 211 Supplement 1 Response US EPR DC.pdf" provides technically correct and complete responses to 3 of the remaining 4 questions, as committed.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the responses to RAI 211 Questions 03.03.01-3, and 03.04.02-7.

The following table indicates the respective pages in the response document, "RAI 211 Supplement 1 Response US EPR DC.pdf" that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 211 — 03.03.01-3	2	3
RAI 211 — 03.04.02-7	4	4

RAI 211 — 03.05.03-10	5	5
-----------------------	---	---

The schedule for a technically correct and complete response to the remaining 1 question is unchanged and provided below:

Question #	Response Date
RAI 211 — 03.03.02-3	August 26, 2009

Sincerely,

Ronda Pederson

ronda.pederson@areva.com

Licensing Manager, U.S. EPR Design Certification

AREVA NP Inc.

An AREVA and Siemens company

3315 Old Forest Road

Lynchburg, VA 24506-0935

Phone: 434-832-3694

Cell: 434-841-8788

From: Pederson Ronda M (AREVA NP INC)

Sent: Tuesday, May 26, 2009 3:09 PM

To: 'Getachew Tesfaye'

Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); VAN NOY Mark (EXT)

Subject: Response to U.S. EPR Design Certification Application RAI No. 211, FSAR Ch. 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 211 Response US EPR DC.pdf" provides technically correct and complete responses to 6 of the 10 questions.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which supports the response to RAI 211 Questions 03.09.03-21, 03.12-12, 03.12-13, and 03.12-16.

The following table indicates the respective pages in the response document, "RAI 211 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 211 — 03.03.01-3	2	3
RAI 211 — 03.03.02-3	4	6
RAI 211 — 03.04.02-7	7	7
RAI 211 — 03.05.03-10	8	8
RAI 211 — 03.08.01-31	9	10
RAI 211 — 03.09.03-21	11	11
RAI 211 — 03.12-12	12	12
RAI 211 — 03.12-13	13	14
RAI 211 — 03.12-15	15	15
RAI 211 — 03.12-16	16	16

A complete answer is not provided for 4 of the 10 questions. The schedule for technically correct and complete responses to these questions is provided below.

Question #	Response Date
RAI 211 — 03.03.01-3	July 14, 2009
RAI 211 — 03.03.02-3	August 26, 2009
RAI 211 — 03.04.02-7	July 14, 2009
RAI 211 — 03.05.03-10	July 14, 2009

Sincerely,

Ronda Pederson

ronda.pederson@areva.com

Licensing Manager, U.S. EPR Design Certification

AREVA NP Inc.

An AREVA and Siemens company

3315 Old Forest Road

Lynchburg, VA 24506-0935

Phone: 434-832-3694

Cell: 434-841-8788

From: Getachew Tesfaye [mailto:Getachew.Tesfaye@nrc.gov]

Sent: Thursday, April 23, 2009 7:46 PM

To: ZZ-DL-A-USEPR-DL

Cc: David Jeng; Jim Xu; Abdul Sheikh; Kaihwa Hsu; Anthony Hsia; Michael Miernicki; Joseph Colaccino; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 211 (2435, 2437,2438, 2439, 2462, 2442, 2376), FSAR Ch. 3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on April 7, 2009, and discussed with your staff on April 20, 2009. Draft RAI Question 03.12-14 was deleted as a result of that discussion. 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: 3009

Mail Envelope Properties (2FBE1051AEB2E748A0F98DF9EEE5A5D472785B)

Subject: Response to U.S. EPR Design Certification Application RAI No. 211, FSAR Ch. 3, Supplement 3
Sent Date: 5/20/2011 4:03:40 PM
Received Date: 5/20/2011 4:04:01 PM
From: WILLIFORD Dennis (AREVA)

Created By: Dennis.Williford@areva.com

Recipients:

"BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com>

Tracking Status: None

"DELANO Karen (AREVA)" <Karen.Delano@areva.com>

Tracking Status: None

"ROMINE Judy (AREVA)" <Judy.Romine@areva.com>

Tracking Status: None

"RYAN Tom (AREVA)" <Tom.Ryan@areva.com>

Tracking Status: None

"CORNELL Veronica (EXTERNAL AREVA)" <Veronica.Cornell.ext@areva.com>

Tracking Status: None

"Tsfaye, Getachew" <Getachew.Tsfaye@nrc.gov>

Tracking Status: None

Post Office: auscharm02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	7986	5/20/2011 4:04:01 PM
RAI 211 Supplement 3 Response US EPR DC.pdf		59884

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

Response to

**Request for Additional Information No. 211(2435, 2437, 2438, 2439, 2462, 2442,
2376), Revision 0, Supplement 3**

4/23/2009

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 03.03.01 - Wind Loading

SRP Section: 03.03.02 - Tornado Loads

SRP Section: 03.04.02 - Analysis Procedures

SRP Section: 03.05.03 - Barrier Design Procedures

SRP Section: 03.08.01 - Concrete Containment

SRP Section: 03.09.03 - ASME Code Class 1, 2, and 3 Components

**SRP Section: 03.12 - ASME Code Class 1, 2, and 3 Piping Systems and Piping
Components and Their Associated Supports**

Application Section: FSAR Ch. 3

QUESTIONS for Structural Engineering Branch 2 (ESBWR/ABWR Projects) (SEB2)

QUESTIONS for Engineering Mechanics Branch 1 (AP1000/EPR Projects) (EMB1)

Question 03.08.01-31:

FSAR Section 3.8.1.7.2 does not provide sufficient information which demonstrates that the inservice inspection (ISI) of the prestressed concrete containment is performed in accordance with RG 1.90. For example, there is no explanation whether the EPR containment falls within the definition of a “reference containment” type as defined in Section B of the RG. Based on the dimensions of the EPR containment, it appears that it does not, and so it is not clear whether the ISI program for this containment meets the guidelines in Appendix A to the RG 1.90. FSAR Section 3.8.1.7.2 does not identify whether Alternative A or B is being used to monitor the performance of the containment as defined in the RG. If monitoring deformation under pressure (Alternative B) is selected, then where does the FSAR state that the design of the containment structure meets additional criteria such as maintaining compression of the containment under the peak pressure during the ISI tests and limiting the maximum stress in the tensile reinforcing steel to one half of the yield strength. The FSAR also does not describe the locations for monitoring the displacement of the containment which demonstrates that these locations satisfy the guidelines presented in RG 1.90. Based on the above, AREVA is requested to provide more detailed information which demonstrates how the ISI program satisfies the guidelines presented in RG 1.90.

Response to Question 03.08.01-31:

U.S. EPR containment dimensions are greater than those of the RG 1.90 “reference containment.” U.S. EPR FSAR Tier 2, Section 3.8.1.7.2 was revised in the Response to RAI 448, Question 03.08.01-50 and states that guidelines in RG 1.90, Revision 1 will be followed with no exceptions. See also the Response to RAI 448, Questions 03.08.01-50 and 03.08.01-53 for more information.

FSAR Impact:

The U.S. EPR FSAR will not be changed as a result of this question.