

ArevaEPRDCPEm Resource

From: McLellan, Judith
Sent: Thursday, September 06, 2012 3:59 PM
To: ArevaEPRDCPEm Resource
Subject: FW: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3, Supplement 3
Attachments: RAI 481 Supplement 3 Response US EPR DC.pdf

From: WILLIFORD Dennis (AREVA) [mailto:Dennis.Williford@areva.com]
Sent: Wednesday, August 17, 2011 1:24 PM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); NOXON David (AREVA); KOWALSKI David (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3, Supplement 3

Getachew,

On May 11, 2011, AREVA NP Inc. (AREVA NP) provided a technically correct and complete final response to 1 of the 4 questions in RAI 481 and a schedule for the remaining 3 questions. Supplement 1 was submitted to the NRC on June 10, 2011 providing a revised schedule for Question 03.12-25. Supplement 2 was submitted to the NRC on July 8, 2011 providing a technically correct and complete final response to 1 of the remaining 3 questions, as committed.

The attached file, "RAI 481 Supplement 3 Response US EPR DC.pdf" provides a technically correct and complete final response to one of the remaining 2 questions.

The following table indicates the respective pages in the response document, "RAI 481 Supplement 3 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 481 — 03.02.01-18	2	2

The schedule for providing a complete response to the remaining question has been revised as indicated below.

Question #	Response Date
RAI 481 — 03.02.02-13	September 28, 2011

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: WILLIFORD Dennis (RS/NB)
Sent: Friday, July 08, 2011 7:08 PM

To: 'Tesfaye, Getachew'

Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); WELLS Russell (RS/NB)

Subject: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3, Supplement 2

Getachew,

On May 11, 2011, AREVA NP Inc. (AREVA NP) provided a technically correct and complete FINAL response to 1 of the 4 questions in RAI 481 and a schedule for the remaining 3 questions. Supplement 1 was submitted to NRC on June 10, 2011 which provided a revised schedule for Question 03.12-25.

The attached file, "RAI 481 Supplement 2 Response US EPR DC.pdf" provides a technically correct and complete FINAL response to 1 of the remaining 3 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 response to RAI 481 Question 03.12-25.

The following table indicates the respective pages in the response document, "RAI 481 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 481 — 03.12-25	2	3

The schedule for technically correct and complete FINAL responses to the remaining 2 questions is unchanged as provided below:

Question #	Response Date
RAI 481 — 03.02.01-18	August 17, 2011
RAI 481 — 03.02.02-13	August 17, 2011

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: WILLIFORD Dennis (RS/NB)

Sent: Friday, June 10, 2011 10:43 AM

To: Tesfaye, Getachew

Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); WELLS Russell (RS/NB); CORNELL Veronica (External RS/NB)

Subject: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3, Supplement 1

Getachew,

On May 11, 2011, AREVA NP Inc. (AREVA NP) provided a technically correct and complete FINAL response to 1 of the 4 questions in RAI 481 and a schedule for the remaining 3 questions. A revised schedule is being provided for Question 03.12-25, as noted in bold in the table below. The schedule for the remaining questions

is unchanged. Listed below is the schedule for providing a technically correct and complete response to the remaining questions.

Question #	Response Date
RAI 481 — 03.02.01-18	August 17, 2011
RAI 481 — 03.02.02-13	August 17, 2011
RAI 481 — 03.12-25	July 13, 2011

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: WELLS Russell (RS/NB)
Sent: Wednesday, May 11, 2011 4:07 PM
To: 'Tesfaye, Getachew'
Cc: NOXON David (RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 481 Response US EPR DC.pdf" provides a technically correct and complete FINAL response to 1 of the 4 questions and a schedule for the remaining 3 questions.

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 481 Question 03.11-39.

The following table indicates the respective pages in the response document, "RAI 481 Response US EPR DC.pdf" that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 481 — 03.02.01-18	2	2
RAI 481 — 03.02.02-13	3	3
RAI 481 — 03.11-39	4	5
RAI 481 — 03.12-25	6	6

A complete answer is not provided for three questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 481 — 03.02.01-18	August 17, 2011
RAI 481 — 03.02.02-13	August 17, 2011
RAI 481 — 03.12-25	June 13, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

AREVA NP, Inc.

3315 Old Forest Road, P.O. Box 10935

Mail Stop OF-57

Lynchburg, VA 24506-0935

Phone: 434-832-3884 (work)

434-942-6375 (cell)

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Russell.Wells@Areva.com

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

Sent: Monday, April 11, 2011 5:03 PM

To: ZZ-DL-A-USEPR-DL

Cc: McNally, Richard; Hsu, Kaihwa; Hsia, Anthony; Dixon-Herrity, Jennifer; Strnisha, James; Terao, David; Miernicki, Michael; Clark, Phyllis; Colaccino, Joseph; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on April 4, 2011, and discussed with your staff on April 11, 2011. No changes were made to the draft RAI 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: 4019

Mail Envelope Properties (A41C2340DAB39B44AD0B9623285CB3337FA7540DFE)

Subject: FW: Response to U.S. EPR Design Certification Application RAI No. 481(5642,5664,5587,5622), FSAR Ch. 3, Supplement 3
Sent Date: 9/6/2012 3:58:32 PM
Received Date: 9/6/2012 3:58:33 PM
From: McLellan, Judith

Created By: Judith.McLellan@nrc.gov

Recipients:
"ArevaEPRDCPEm Resource" <ArevaEPRDCPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	7969	9/6/2012 3:58:33 PM
RAI 481 Supplement 3 Response US EPR DC.pdf		9879

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

Response to

**Request for Additional Information No. 481(5642, 5664, 5587, 5622), Revision 0,
Supplement 3**

4/11/2011

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 03.02.01 - Seismic Classification

SRP Section: 03.02.02 - System Quality Group Classification

**SRP Section: 03.11 - Environmental Qualification of Mechanical and Electrical
Equipment**

**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 Engineering Mechanics Branch 2 (ESBWR/ABWR Projects)
(EMB2)**

**QUESTIONS for Component Integrity, Performance, and Testing Branch 1
(AP1000/EPR Projects) (CIB1)**

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

Question 03.02.01-18:

FSAR Rev.2 Section 3.2.1 states that to meet the requirements of both GDC 2 and 10 CFR 50, Appendix S with regard to the design for earthquakes, U.S. EPR SSC are seismically classified in accordance with RG 1.29. Also, Table 1.9-2 of the FSAR Tier 2 states that that the U.S. EPR complies with RG 1.29, Revision 4. RG 1.29 regulatory position C.1.c. identifies that the systems that are required for post accident containment atmosphere cleanup (e.g., hydrogen removal system) are designated as Seismic Category I and must be designed to withstand the effects of the SSE and remain functional. However, FSAR Table 3.2.2-1 identifies that the Passive Autocatalytic Recombiners in the Combustible Gas Control System are classified as Seismic Category II rather than Seismic Category I. Describe the basis for the seismic classification of the Passive Autocatalytic Recombiners as Seismic Category II and clarify why this classification is consistent with RG 1.29 or revise the FSAR to show this as an exception to RG 1.29 and justify the acceptability of this exception.

Response to Question 03.02.01-18:

U.S. EPR FSAR Tier 2, Section 6.2.5 states that the hydrogen concentration during design basis accidents remains below the threshold passive autocatalytic recombiners (PARs) are required and credited for accident mitigation. For that reason, the PARs are not safety-related components and are only required for severe accident mitigation. During a safe shutdown earthquake, it is only necessary for the PARs to maintain integrity, and their function is not required during a seismic event. They are therefore classified as Seismic Category II.

FSAR Impact:

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