

ArevaEPRDCPEm Resource

From: WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]
Sent: Wednesday, June 29, 2011 1:47 PM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); GUCWA Len (EXTERNAL AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 429, FSAR Ch. 6, Supplement 6
Attachments: RAI 429 Supplement 6 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010, and provided Supplement 1 to revise the response schedule on December 21, 2010. AREVA NP submitted Supplement 2 response to RAI 429 on March 31, 2011 to provide a technically correct and complete response to 1 of the remaining 2 questions. On April 20, 2011 AREVA NP submitted Supplement 3 response to RAI 429 to revise the schedule for Question 06.03-16. AREVA provided Supplement 4 and Supplement 5 responses to RAI 429 on May 12, 2011 and June 14, 2011, respectively, to revise the schedule for Question 06.03-16.

The attached file, "RAI 429 Supplement 6 Response US EPR DC.pdf" provides a technically correct and complete response to the remaining question.

The following table indicates the respective pages in the response document, "RAI 429 Supplement 6 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 429 — 06.03-16	2	2

This concludes the formal AREVA NP response to RAI 429, 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: RYAN Tom (RS/NB)
Sent: Tuesday, June 14, 2011 11:39 AM
To: 'Tesfaye, Getachew'
Cc: GUCWA Len (External RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); WILLIFORD Dennis (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 429, FSAR Ch. 6, Supplement 5

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010, and provided Supplement 1 to revise the response schedule on December 21, 2010. AREVA NP submitted

Supplement 2 response to RAI 429 on March 31, 2011 to provide a technically correct and complete response to 1 of the remaining 2 questions. On April 20, 2011 AREVA NP submitted Supplement 3 response to RAI 429 to revise the schedule for Question 06.03-16. AREVA provided Supplement 4 response to RAI 429 on May 12, 2011 to revise the schedule for Question 06.03-16.

The schedule for a technically correct and complete FINAL response for this RAI has been revised and is provided below:

Question #	Response Date
RAI 429 — 06.03-16	June 29, 2011

Sincerely,

**Tom Ryan for
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: Thursday, May 12, 2011 3:54 PM

To: Tesfaye, Getachew

Cc: GUCWA Len (External 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. 429, FSAR Ch. 6, Supplement 4

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010, and provided Supplement 1 to revise the response schedule on December 21, 2010. AREVA NP submitted Supplement 2 response to RAI 429 on March 31, 2011 to provide a technically correct and complete response to 1 of the remaining 2 questions. On April 20, 2011 AREVA NP submitted Supplement 3 response to RAI 429 to revise the schedule for Question 06.03-16.

The response schedule for Question 06.03-16 is changed as shown below to provide additional opportunity to interact with the NRC staff. In this regard, a telecon discussion has been scheduled between the NRC staff and AREVA NP for later this month.

Question #	Response Date
RAI 429 — 06.03-16	June 15, 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)

Fax: 434-382-3884

Russell.Wells@Areva.com

From: WELLS Russell (RS/NB)

Sent: Wednesday, April 20, 2011 9:32 AM

To: 'Tesfaye, Getachew'

Cc: GUCWA Len (External 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. 429, FSAR Ch. 6, Supplement 3

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010, and provided Supplement 1 to revise the response schedule on December 21, 2010. AREVA NP submitted Supplement 2 response to RAI 429 on March 31, 2011 to provide a technically correct and complete response to 1 of the remaining 2 questions.

To provide additional opportunity to interact with the NRC staff, the response schedule for the remaining question is changed as shown below.

Question #	Response Date
RAI 429 — 06.03-16	May 12, 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)

Fax: 434-382-3884

Russell.Wells@Areva.com

From: WELLS Russell (RS/NB)

Sent: Thursday, March 31, 2011 3:30 PM

To: 'Tesfaye, Getachew'

Cc: GUCWA Len (External 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. 429, FSAR Ch. 6, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010, and provided Supplement 1 to revise the response schedule on December 21, 2010.

The attached file, "RAI 429 Supplement 2 Response US EPR DC.pdf" provides a technically correct and complete response to 1 of the remaining 2 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 429 Question 06.02.02-67.

The following table indicates the respective pages in the response document, "RAI 429 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 429 —06.02.02-67	2	3

The schedule for technically correct and complete responses to the remaining 1 questions has been changed and is provided below:

Question #	Response Date
RAI 429 — 06.03-16	April 30, 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)

Fax: 434-382-3884

Russell.Wells@Areva.com

From: BRYAN Martin (External RS/NB)

Sent: Tuesday, December 21, 2010 10:51 AM

To: 'Tesfaye, Getachew'

Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); GUCWA Len (External RS/NB); Carneal, Jason

Subject: Response to U.S. EPR Design Certification Application RAI No. 429, FSAR Ch. 6, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided a response to 1 of the 3 questions in RAI 429 on November 11, 2010. The attached file, "RAI 429 Supplement 1 Response US EPR DC.pdf," provides a revised response to Question 06.02.02-68. 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 429 Question 06.02.02-68.

The following table indicates the respective pages in the response document, "RAI 429 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
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To provide an opportunity to interact with the NRC staff, a revised response schedule is provided for Question 06.02.02-67 as indicated below. The schedule for Question 06.03-16 remains unchanged.

Question #	Response Date
RAI 429 — 06.02.02-67	March 31, 2011
RAI 429 — 06.03-16	March 31, 2011

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: BRYAN Martin (External RS/NB)
Sent: Thursday, November 11, 2010 6:10 PM
To: 'Tefaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); GUCWA Len (External RS/NB); Carneal, Jason
Subject: Response to U.S. EPR Design Certification Application RAI No. 429, FSAR Ch. 6

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 429 Response US EPR DC.pdf" provides a technically correct and complete response to 1 of the 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 429 Question 06.02.02-68.

The following table indicates the respective pages in the response document, "RAI 429 Response US EPR DC.pdf," that contains AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 429 — 06.02.02-67	2	2
RAI 429 — 06.02.02-68	3	3
RAI 429 — 06.03-16	4	4

A complete answer is not provided for 2 of the 3 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 429 — 06.02.02-67	January 6, 2011
RAI 429 — 06.03-16	March 31, 2011

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, October 15, 2010 2:50 PM
To: ZZ-DL-A-USEPR-DL
Cc: Ashley, Clinton; Jackson, Christopher; McKirgan, John; Budzynski, John; Lu, Shanlai; Thomas, George; Donoghue, Joseph; Carneal, Jason; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 429 (4821, 4914), FSAR Ch. 6

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on July 21, 2010, and on October 15, 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: 3167

Mail Envelope Properties (2FBE1051AEB2E748A0F98DF9EEE5A5D47AF318)

Subject: Response to U.S. EPR Design Certification Application RAI No. 429, FSAR Ch. 6, Supplement 6
Sent Date: 6/29/2011 1:47:25 PM
Received Date: 6/29/2011 1:47:30 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
"GUCWA Len (EXTERNAL AREVA)" <Len.Gucwa.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	11918	6/29/2011 1:47:30 PM
RAI 429 Supplement 6 Response US EPR DC.pdf		58926

Options

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

Response to

Request for Additional Information No. 429, Supplement 6

10/15/2010

U.S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 06.02.02 - Containment Heat Removal Systems

SRP Section: 06.03 - Emergency Core Cooling System

Application Section: FSAR Chapter 6

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects)

(SPCV)

Question 06.03-16:

After review of "US EPR Safety Injection System Analysis for Design Certification Document," Doc. No. 32-9017755-005 conducted on July 2, 2010 at AREVA's Rockville office, the staff has requested additional information as a supplement to RAI Question 06.03-15 which requested justifying why the selected approach, use of containment accident pressure (CAP) to support ECCS NPSH analysis, is acceptable. In your response, include:

- (1) From a PRA risk perspective, justify that significant containment breaching during a LOCA event is a low probability event;
- (2) Evaluate any possible activation of non-safety grade containment equipment and systems; and
- (3) Provide a graphical representation of the most limiting IRWST water saturation pressure versus time and the most limiting lower bound containment accident pressure taking into account of possible leakage.

Response to Question 06.03-16:

The response to this question is included in the Response to RAI 416, Question 6.3-15.

FSAR Impact:

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