

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Wednesday, March 07, 2012 5:15 PM  
**To:** Tesfaye, Getachew  
**Cc:** BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); WELLS Russell (AREVA)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 49, FSAR Ch 3, Supplement 3  
**Attachments:** RAI 49 Supplement 3 Response US ERP DC.pdf

Getachew,

AREVA NP Inc. provided responses to 10 of the 13 questions of RAI No. 49 on September 18, 2008. AREVA NP submitted Supplement 1 to the response on November 17, 2008 to address the remaining 3 questions. AREVA NP submitted Supplement 2 to the response on June 11, 2009 to provide revised responses to eight questions (Questions 03.09.06-1, 03.09.06-3, 03.09.06-5, 03.09.06-6, 03.09.06-7, 03.09.06-8, 03.09.06-10, and 03.09.06-11).

Based on an issue raised during the ACRS U.S. EPR Chapter 3 subcommittee meeting on February 21, 2012, the attached file, "RAI 49 Supplement 3 Response US EPR DC.pdf" supersedes our previous response to RAI 49, Question 03.09.06-5, part 3.

The following table indicates the respective pages in the response document, "RAI 49 Supplement 3 Response US EPR DC.pdf" that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 49 — 03.09.06-5, part 3	2	2

This concludes the formal AREVA NP response to RAI 49, 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](mailto:Dennis.Williford@areva.com)

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**From:** WELLS Russell D (AREVA NP INC)  
**Sent:** Thursday, June 11, 2009 1:33 PM  
**To:** 'Getachew Tesfaye'  
**Cc:** Pederson Ronda M (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 49, FSAR Ch 3, Supplement 2

Getachew,

AREVA NP Inc. provided responses to 10 of the 13 questions of RAI No. 49 on September 18, 2008. AREVA NP submitted Supplement 1 to the response on November 17, 2008 to address the remaining 3 questions.

Based on discussions with the NRC on March 4, 2009 at the U.S. EPR Design Centered Working Group meeting related to the U.S. EPR inservice testing (IST) program description and conference calls on April 14, 2009 and May 21, 2009, the attached file, "RAI 49 Supplement 2 Response US EPR DC.pdf" supersedes our previous responses to RAI 49, with the exception of the responses to Questions 03.09.06-4, 03.09.06-9, 03.09.06-12 and 03.09.06-13, included in the original response to RAI 49.

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 49, Questions 03.09.06-1, 03.09.06-5, 03.09.06-6, 03.09.06-7, 03.09.06-8, 03.09.06-10, and 03.09.06-11.

The following table indicates the respective pages in the response document, "RAI 49 Supplement 1 Response US EPR DC.pdf" that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 49 — 03.09.06-1	2	3
RAI 49 — 03.09.06-3	4	6
RAI 49 — 03.09.06-5	7	8
RAI 49 — 03.09.06-6	9	9
RAI 49 — 03.09.06-7	10	10
RAI 49 — 03.09.06-8	11	11
RAI 49 — 03.09.06-10	12	12
RAI 49 — 03.09.06-11	13	14

This concludes the formal AREVA NP response to RAI 49, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

(Russ Wells on behalf of)

*Ronda Pederson*

[ronda.pederson@areva.com](mailto:ronda.pederson@areva.com)

Licensing Manager, U.S. EPR Design Certification  
New Plants Deployment

**AREVA NP, Inc.**

An AREVA and Siemens company

3315 Old Forest Road

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Phone: 434-832-3694

Cell: 434-841-8788

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**From:** Pederson Ronda M (AREVA NP INC)

**Sent:** Monday, November 17, 2008 5:40 PM

**To:** 'Getachew Tesfaye'

**Cc:** 'John Rycyna'; WELLS Russell D (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); SLIVA Dana (EXT)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 49, FSAR Ch 3, Supplement 1

Getachew,

AREVA NP Inc. provided responses to 10 of the 13 questions of RAI No. 49 on September 18, 2008. The attached file, "RAI 49 Supplement 1 Response US EPR DC.pdf" provides a technically correct and complete response to the remaining three 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 49, Question 03.09.06-5.

The following table provides the page(s) in the response document, "RAI 49 Supplement 1 Response US EPR DC.pdf" containing the response to each question.

Question #	Start Page	End Page
RAI 49 — 03.09.06-5	2	3
RAI 49 — 03.09.06-6	4	4
RAI 49 — 03.09.06-7	5	5

This concludes the formal AREVA NP response to RAI 49, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

*Ronda Pederson*

[ronda.pederson@areva.com](mailto:ronda.pederson@areva.com)

Licensing Manager, U.S. EPR Design Certification

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**From:** WELLS Russell D (AREVA NP INC)

**Sent:** Thursday, September 18, 2008 4:38 PM

**To:** 'Getachew Tesfaye'

**Cc:** 'John Rycyna'; Pederson Ronda M (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 49, FSAR Ch 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 49 Response US EPR DC.pdf" provides technically correct and complete responses to 9 of the 12 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 49 Question 03.09.06-13.

The following table provides the page(s) in the response document, "RAI 49 Response US EPR DC.pdf" containing the response to each question.

Question #	Start Page	End Page
RAI 49 — 03.09.06-1	2	3
RAI 49 — 03.09.06-3	4	6
RAI 49 — 03.09.06-4	7	7
RAI 49 — 03.09.06-5	8	8
RAI 49 — 03.09.06-6	9	9
RAI 49 — 03.09.06-7	10	10

RAI 49 — 03.09.06-8	11	11
RAI 49 — 03.09.06-9	12	13
RAI 49 — 03.09.06-10	14	14
RAI 49 — 03.09.06-11	15	15
RAI 49 — 03.09.06-12	16	16
RAI 49 — 03.09.06-13	17	17

A complete answer is not provided for 3 of the 12 questions. The schedule for a technically correct and complete response to this question is provided below.

Question #	Response Date
RAI 49 — 03.09.06-5	November 19, 2008
RAI 49 — 03.09.06-6	November 19, 2008
RAI 49 — 03.09.06-7	November 19, 2008

Sincerely,

(Russ Wells on behalf of)

*Ronda Pederson*

[ronda.pederson@areva.com](mailto:ronda.pederson@areva.com)

Licensing Manager, U.S. EPR Design Certification

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

**Sent:** Thursday, August 21, 2008 4:38 PM

**To:** ZZ-DL-A-USEPR-DL

**Cc:** Charles Hammer; David Terao; Tarun Roy; Joseph Colaccino; John Rycyna

**Subject:** U.S. EPR Design Certification Application RAI No. 49 (873), FSAR Ch3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on August 7, 2008, and discussed with your staff on August 21, 2008. Draft RAI Question 03.09.06-2 was deleted and Draft RAI Questions 03.09.06-8 and 03.09.06-9 were modified 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:** 3816

**Mail Envelope Properties** (2FBE1051AEB2E748A0F98DF9EEE5A5D4B70C83)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 49, FSAR Ch 3, Supplement 3  
**Sent Date:** 3/7/2012 5:14:36 PM  
**Received Date:** 3/7/2012 5:13:40 PM  
**From:** WILLIFORD Dennis (AREVA)

**Created By:** Dennis.Williford@areva.com

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

Tracking Status: None

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

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Tracking Status: None

"WELLS Russell (AREVA)" <Russell.Wells@areva.com>

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Tracking Status: None

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<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	8657	3/7/2012 5:13:40 PM
RAI 49 Supplement 3 Response US ERP DC.pdf		453384

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

**Response to**

**Request for Additional Information No. 49 (873), Supplement 3, Revision 0**

**8/21/2008**

**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**

**CIB1 Branch**

**Question 03.09.06-5:**

In the IST program for valves, please address the following additional requirements:

1. As required by ISTC-5220, air release and vacuum breaker valves (identified as 30PEB10AA190, 30PEB10AA191, 30XJG10AC001, 30PEB20AP001, SAQ20AC001, 30XJG20AC001, 30XJG30AC001, PEB30AP001, SAQ30AC001, 30XJG40AC001, PEB40AP001, and SAQ40AC001) should have a stroke testing frequency of 2-years.
2. The IST valve table needs to show valve sizes and associated P&ID drawing numbers.
3. Since the main steam isolation valves are single inline components and are required to isolate flow in the forward and reverse direction, address the need for leak testing in each direction.
4. On the safety injection system P&ID (Figure 6.3-3), there are shown 3-port power -operated valves (30JNK10AA001, 30JNK20AA001, 30JNK30AA001, and 30JNK40AA001) that should be added to the IST program.
5. There are valves in the IST table (30JMQ41AA002, 30JMQ42AA002, 30JMQ43AA002, 30JNG10AA010, 30JNG20AA010, 30JNG30AA010, 30JNG40AA010) that have a passive designation which is inconsistent with having both open and closed safety positions.
6. The IST table should indicate that all power-operated valves requiring an exercise test should also require a stroke time test (ISTC-5113).
7. In accordance with ISTC-3560, required fail-safe testing should be indicated in the IST table.

**Response to Question 03.09.06-5:**

Note: the below response provides a revised response to part 3 of this question. The remaining responses were provided in RAI 49 Supplement 2 (NRC Accession Number ML091620559)

3. As stated in U.S. EPR FSAR Tier 2, Section 10.3.2.2, "Each MSIV is seat leakage tested in the forward and reverse flow directions by the valve supplier. Periodic leak testing of each MSIV is tested by pressurizing the valve cavity between the disks." As shown in U.S. EPR FSAR Tier 2, Table 3.9.6-2, the MSIVs are Category A valves and are tested in accordance with ASME OM Code ISTC-3510.

**FSAR Impact:**

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