

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Wednesday, June 27, 2012 8:22 AM  
**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. 537 (6248), FSAR Ch. 6, Supplement 1  
**Attachments:** RAI 537 Supplement 1 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to the one question in RAI 537 on May 8, 2012. Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 537 Supplement 1 Response US EPR DC.pdf" provides a technically correct and complete final response to the one question.

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 537, Question 06.02.01-104.

The following table indicates the respective pages in the response document, "RAI 537 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

| Question #             | Start Page | End Page |
|------------------------|------------|----------|
| RAI 537 — 06.02.01-104 | 2          | 2        |

This concludes the formal AREVA NP response to RAI 537, 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  
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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Tuesday, May 08, 2012 5:51 PM  
**To:** [Getachew.Tesfaye@nrc.gov](mailto:Getachew.Tesfaye@nrc.gov)  
**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. 537 (6248), FSAR Ch. 6

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 537 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the one question cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 537 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

| Question #             | Start Page | End Page |
|------------------------|------------|----------|
| RAI 537 — 06.02.01-104 | 2          | 2        |

A complete answer is not provided for the one question. The schedule for a technically correct and complete final response to this question is provided below.

| Question #             | Response Date |
|------------------------|---------------|
| RAI 537 — 06.02.01-104 | July 9, 2012  |

Sincerely,

***Dennis Williford, P.E.***  
***U.S. EPR Design Certification Licensing Manager***  
***AREVA NP Inc.***

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**From:** Tesfaye, Getachew [<mailto:Getachew.Tesfaye@nrc.gov>]  
**Sent:** Wednesday, April 11, 2012 8:17 AM  
**To:** ZZ-DL-A-USEPR-DL  
**Cc:** Peng, Shie-Jeng; McKirgan, John; Gleaves, Bill; Segala, John; ArevaEPRDCPEm Resource  
**Subject:** U.S. EPR Design Certification Application RAI No. 537 (6248), FSAR Ch. 6

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on December 23, 2011, and discussed with your staff via email on January 6, 24, 25, and on April 5, 2012. To address AREVA's concern that this RAI belongs in Chapter 3 not Chapter 6 since it is directly related to an open item in Chapter 3, the RAI is modified to include a pointer to the chapter 3 open item. 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/LB1  
(301) 415-3361

**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 3958

**Mail Envelope Properties** (2FBE1051AEB2E748A0F98DF9EEE5A5D4D0067E)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 537 (6248),  
FSAR Ch. 6, Supplement 1  
**Sent Date:** 6/27/2012 8:22:27 AM  
**Received Date:** 6/27/2012 8:22:55 AM  
**From:** WILLIFORD Dennis (AREVA)

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

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| <b>Files</b>                                | <b>Size</b> | <b>Date &amp; Time</b> |
|---|-------------|------------------------|
| MESSAGE                                     | 4058        | 6/27/2012 8:22:55 AM   |
| RAI 537 Supplement 1 Response US EPR DC.pdf |             | 692747                 |

**Options**

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

**Response to  
Request for Additional Information No. 537  
Supplement 1**

**04/11/2012**

**U. S. EPR Standard Design Certification  
AREVA NP Inc.  
Docket No. 52-020  
SRP Section: 06.02.01 - Containment Functional Design  
Application Section: 6.2.1**

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

**Question 06.02.01-104:**

**OPEN ITEM**

**Follow-up to RAI 368, Question 06.02.01-80**

**Also related to Open Item in Chapter 3 (RAI 249, Question 03.11-14)**

Based on GDC 4, 13 and 50, the purpose of this RAI is to ensure that the components important to safety be designed to accommodate the effects of postulated accidents. The following is a follow-up question of RAI No. 368, Supplement 10, Question 06.02.01-80 after reviewing the RAI response as received on August 25, 2011.

Non-conservative EQ Temperature Envelope in Tier 2 FSAR (Rev. 3).

The information as provided in the RAI No. 368, Supplement 10 response for Question 06.02.01-80, Table 06.02.01-80-1 and Figure 06.02.01-80-1, presents the bounding temperature envelope for environmental qualification that captures all LOCA and MSLB cases. The RAI response concludes that the FSAR will not be changed as a result of this question. Staff notes, the EQ temperature curve as shown in Figure 3D-1 of Tier 2 FSAR Rev.3 is significantly non-conservative as compared to the temperature envelope provided in this RAI response. Staff requests the applicant address the non-conservatism of FSAR Rev.3 EQ temperature curve (Figure 3D-1) against this RAI response and resolve their inconsistency.

**Response to Question 06.02.01-104:**

U.S. EPR FSAR Tier 2, Appendix 3D, Figures 3D-1 and 3D-2 will be revised to reflect the revised temperature and pressure envelope as a result of the response to RAI No. 368, Supplement 10.

**FSAR Impact:**

U.S. EPR FSAR Tier 2, Appendix 3D, Figures 3D-1 and 3D-2 will be revised as described in the response and indicated on the enclosed markup.

# U.S. EPR Final Safety Analysis Report Markups

Figure 3D-1—Typical Combined LOCA/SLB Inside Containment Temperature Service Conditions Envelope

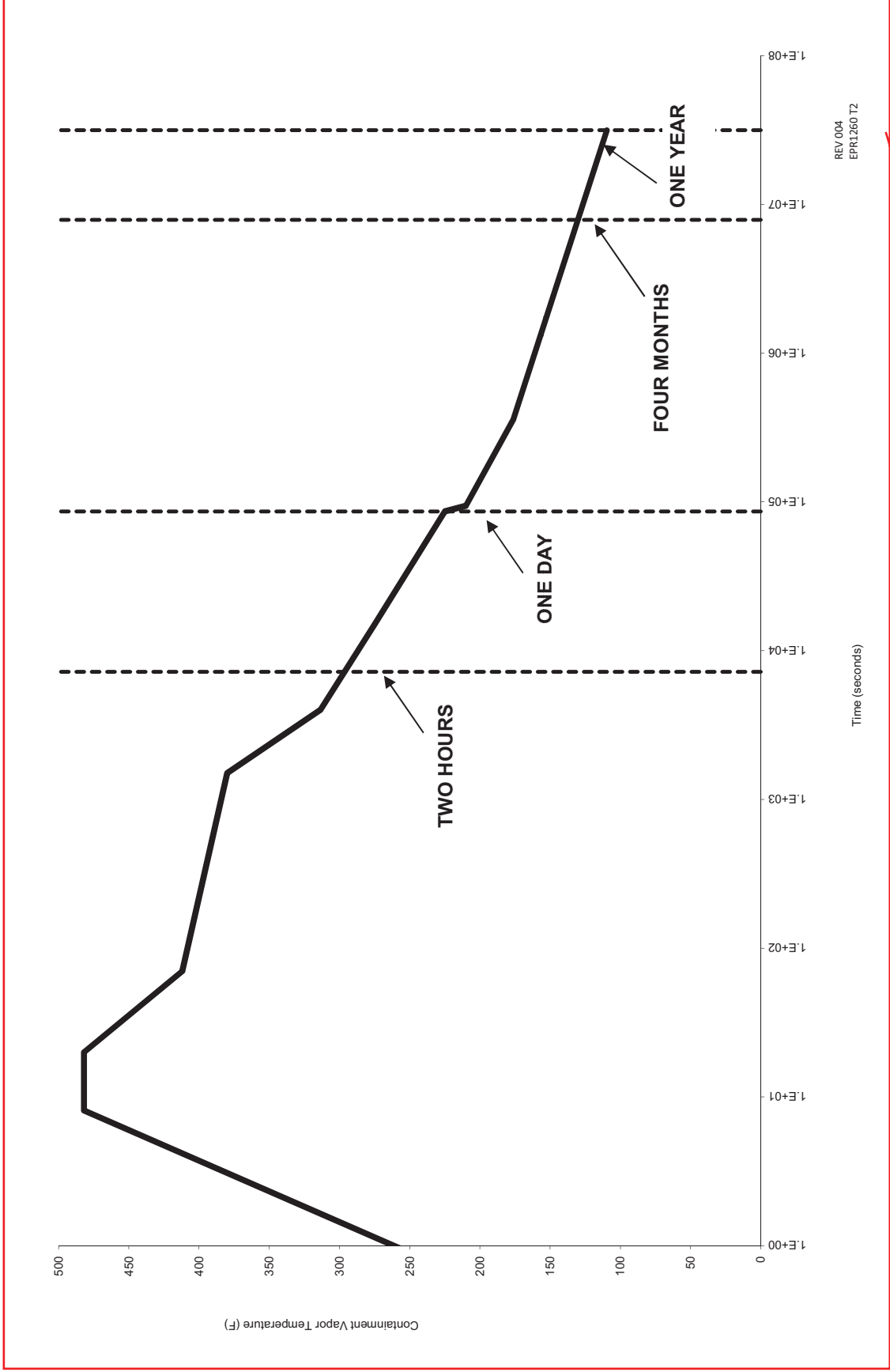
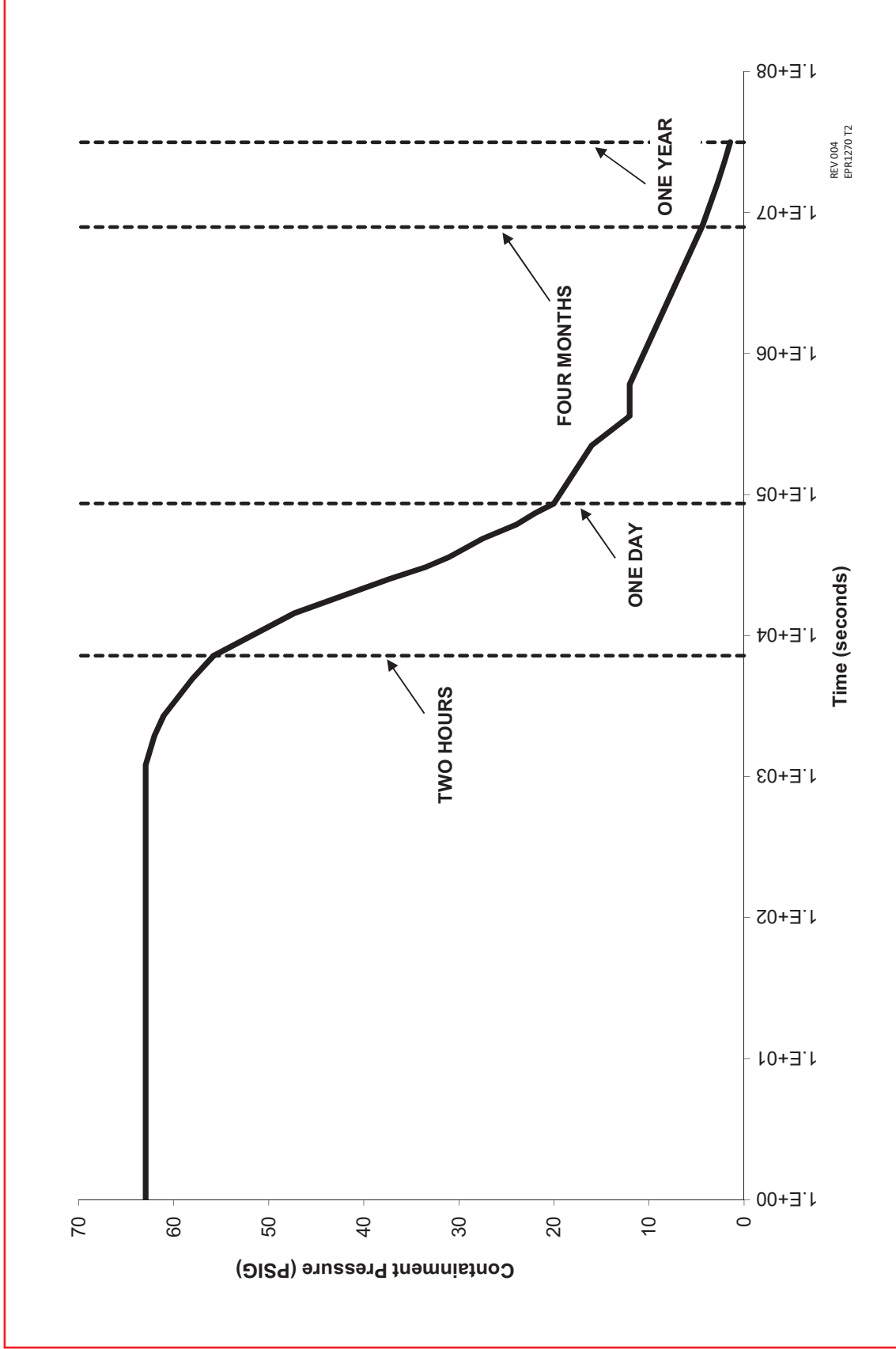


Figure 3D-2—Typical Combined LOCA/SLB Inside Containment Pressure Service Conditions Envelope



06.02.01-104