

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Tuesday, July 23, 2013 6:17 PM  
**To:** Snyder, Amy  
**Cc:** Miernicki, Michael; ANDERSON Katherine (EXTERNAL AREVA); DELANO Karen (AREVA); LEIGHLITER John (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); MONTAGUE Kelvin (EXTERNAL AREVA)  
**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI 587, Chapter 3  
**Attachments:** RAI 587 Response US EPR DC.pdf

Amy,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 587 Response US EPR DC.pdf," provides a schedule since a technically correct and complete response to the single question cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 587 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 587 — 03.07.02-79	2	2

The schedule for a technically correct and complete response to the question is provided below.

Question #	Advanced Response Date	NRC Comment Request Date	Final Response Date
RAI 587 — 03.07.02-79	August 30, 2013	September 18, 2013	<b>September 30, 2013</b>

Sincerely,

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

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Charlotte, NC 28262  
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**From:** Snyder, Amy [<mailto:Amy.Snyder@nrc.gov>]  
**Sent:** Tuesday, June 25, 2013 8:16 AM  
**To:** ZZ-DL-A-USEPR-DL  
**Cc:** Miernicki, Michael; Segala, John; Xu, Jim  
**Subject:** U.S. EPR Design Certification Application FINAL RAI 587, Chapter 3

Attached please find the subject request for additional information (RAI). A draft RAI was provided to you on June 25, 2013. On June 24, 2013, you informed us that the draft RAI does not contain proprietary information and that the draft RAI is clear and no further clarification is needed. As result, the RAI was not changed.

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 or July 25, 2013**, 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.

Thank You,

Amy

Amy Snyder, U.S. EPR Design Certification Lead Project Manager

Licensing Branch 1 (LB1)

Division of New Reactor Licensing

Office of New Reactors

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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 4623

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**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI 587,  
Chapter 3  
**Sent Date:** 7/23/2013 6:17:13 PM  
**Received Date:** 7/23/2013 6:17:17 PM  
**From:** WILLIFORD Dennis (AREVA)

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

**Recipients:**

"Miernicki, Michael" <Michael.Miernicki@nrc.gov>

Tracking Status: None

"ANDERSON Katherine (EXTERNAL AREVA)" <katherine.anderson.ext@areva.com>

Tracking Status: None

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

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

Tracking Status: None

"MONTAGUE Kelvin (EXTERNAL AREVA)" <kelvin.montague.ext@areva.com>

Tracking Status: None

"Snyder, Amy" <Amy.Snyder@nrc.gov>

Tracking Status: None

**Post Office:** FUSLYNCMX03.fdom.ad.corp

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	2517	7/23/2013 6:17:17 PM
RAI 587 Response US EPR DC.pdf		65113

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

**Response to**

**Request for Additional Information No.587**

**6/25/2013**

**U.S. EPR Standard Design Certification**

**AREVA NP Inc.**

**Docket No. 52-020**

**SRP Section: 03.07.02 - Seismic System Analysis**

**Application Section: 3.7.2**

**Question 03.07.02-79:**

Follow-up Question to RAI 370 Question 03.07.02-64

In its review of AREVA's response to RAI 370 Question 03.07.02-64, Supplement 24, the staff has identified a number of technical errors as described below.

1. In Attachment B of the response, there is an error on page 28 of 39. In the equation for allowable bearing capacity where shear wave velocities exceed 500 m/sec, a term  $s_v$  has been left out which results in an over-prediction on page 29 of the allowable bearing capacity for soil type 4ue. AREVA should also check the allowable bearing capacity for soil case 2sn4ue. In addition, the bearing capacity upper limit of 30.6 times the unit weight is applicable when  $V_s$  exceeds 2000 m/sec not 500 m/sec.
2. In the FSAR markup on page 3.7-123, the third paragraph states:

"Bounding analysis cases, using the Table 3.7.1-6 soil cases, are performed for sliding and overturning using the model previously described to demonstrate that..."

It requires that COLs should perform bounding analyses using DC generic soil cases in Table 3.7.1-6. This is inconsistent with the requirements for COL site-specific analysis to demonstrate structural stability. A suggested revision to this paragraph is:

"Bounding analysis cases, ~~using the Table 3.7.1-6 soil cases,~~ are to be performed for sliding and overturning using the model previously described to demonstrate that..."

The staff requests that the applicant provide corrections of these technical errors in the response to RAI 370 Question 03.07.02-64 and associated FSAR markup.

**Response to Question 03.07.02-79:**

A response to this question will be provided by September 30, 2013.