

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Monday, February 11, 2013 4:39 PM  
**To:** Snyder, Amy  
**Cc:** Ford, Tanya; DELANO Karen (AREVA); LEIGHLITER John (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); WILLS Tiffany (AREVA); NOXON David (AREVA)  
**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI No. 561 (6504), FSAR Ch. 19  
**Attachments:** RAI 561 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 561 Response US EPR DC.pdf," provides a schedule since a technically correct and complete response to the three questions cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 561 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

| Question #         | Start Page | End Page |
|--------------------|------------|----------|
| RAI 561 — 19.01-48 | 2          | 2        |
| RAI 561 — 19.01-49 | 3          | 3        |
| RAI 561 — 19.01-50 | 4          | 4        |

The schedule for technically correct and complete responses to these questions is provided below.

| Question #         | Response Date  |
|--------------------|----------------|
| RAI 561 — 19.01-48 | April 26, 2013 |
| RAI 561 — 19.01-49 | April 26, 2013 |
| RAI 561 — 19.01-50 | April 26, 2013 |

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:** Friday, January 11, 2013 1:52 PM  
**To:** ZZ-DL-A-USEPR-DL  
**Cc:** Pohida, Marie; Mrowca, Lynn; Ford, Tanya; Segala, John; ArevaEPRDCPEm Resource  
**Subject:** U.S. EPR Design Certification Application FINAL RAI No. 561 (6504), FSAR Ch. 19

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on October 2 2012 and discussed with your staff on October 23, 2012. On October 23 2013, you informed us that the RAI, as discussed on the teleconference, is clear and no further clarification is needed and that the draft RAI does not contain proprietary information. As a result, Draft RAI Question 19-01.48 was modified as a result of those discussions.

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 RAI question 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.

Thank you.

Amy

**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 4218

**Mail Envelope Properties** (554210743EFE354B8D5741BEB695E6560C569E)

**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI No. 561 (6504), FSAR Ch. 19  
**Sent Date:** 2/11/2013 4:39:19 PM  
**Received Date:** 2/11/2013 4:39:26 PM  
**From:** WILLIFORD Dennis (AREVA)

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

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

| <b>Files</b>                   | <b>Size</b> | <b>Date &amp; Time</b> |
|--------------------------------|-------------|------------------------|
| MESSAGE                        | 2383        | 2/11/2013 4:39:26 PM   |
| RAI 561 Response US EPR DC.pdf |             | 65540                  |

**Options**

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

**Response to**

**Request for Additional Information No.561, Revision 0**

**1/11/2013**

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

**AREVA NP Inc.**

**Docket No. 52-020**

**SRP Section: 19.01 - Determining the Technical Adequacy of Probabilistic Risk**

**Assessment Results for Risk-Informed**

**Application Section: 19**

**Question 19.01-48:**

**Open Item**

**FOLLOW-UP TO RAI 97, QUESTION 19-225**

In FSAR Revision 3, Section 19.1.5.4.1, the EPR high winds evaluation is discussed. The FSAR states, "The EPR Seismic Category I structures are specifically designed for a basic wind speed of 145 mph. This value bounds all locations within the U.S. except the extreme southern tips of Louisiana and Florida (SEI/ASCE 7-05)." These statements have no justification attached. Please provide the risk analyses of extreme winds (other than tornadoes) that justifies this statement or please remove the conclusion from the FSAR.

The staff understands the basic wind speeds from SEI/ASCE 7-05 to be the 100 year return period of a 3 second gust wind at 33 feet based on a specific location located on the wind speed map of the United States.

Please note, as documented in Table 1.8-2 of the EPR FSAR, COL Item 19.1-7 states that the COL applicant that references the U.S. EPR design certification will perform the site-specific screening analysis and the site-specific risk analysis for external events applicable to their site

**Response to Question 19.01-48:**

A response to this question will be provided by April 26, 2013.

**Question 19.01-49:**

**Open Item**

**FOLLOW-UP TO RAI 97, QUESTION 19-225**

The external flooding evaluation is discussed in FSAR Revision 3, Section 19.1.5.4.2. The external flooding conclusion states, "The preceding external flooding design features, in combination with the U.S. EPR requirements for building location relative to the probable maximum flood (PMF) and maximum groundwater elevation, provide a robust design against potential external floods. Therefore, the risk from external flooding events is judged not significant."

The last sentence in the paragraph above, "the risk from external flooding events is judged not significant" has no justification attached. Please provide the risk analyses that justify this statement or please remove the conclusion from the FSAR. As documented in Table 1.8-2 of the EPR FSAR, COL Item 19.1-7 states that the COL applicant that references the U.S. EPR design certification will perform the site-specific screening analysis and the site-specific risk analysis for external events applicable to their site.

**Response to Question 19.01-49:**

A response to this question will be provided by April 26, 2013.

**Question 19.01-50:**

**Open Item**

**FOLLOW-UP TO RAI 97, QUESTION 19-225**

The external fire evaluation is discussed in FSAR Revision 3, Section 19.1.5.4.3. The external fire conclusion states, "The preceding external fire design features, in combination with the U.S. EPR requirements for structural design, structure location and design consideration of the CRE, provide a robust design against potential external fire and smoke events. Therefore, the risk from external fire and smoke events is judged not significant."

The last sentence in the paragraph above, "the risk from external fires and smoke events is judged not significant" has no justification attached. The staff accepts that external smoke has been evaluated the design of the CRE. However the risk of external fires has not been evaluated. Please provide the risk analyses that justify this statement or please remove this conclusion from the FSAR. As documented in Table 1.8-2 of the EPR FSAR, COL Item 19.1-7 states that the COL applicant that references the US EPR design certification will perform the site-specific screening analysis and the site-specific risk analysis for external events applicable to their site.

**Response to Question 19.01-50:**

A response to this question will be provided by April 26, 2013.