

## ArevaEPRDCPEm Resource

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**From:** Snyder, Amy  
**Sent:** Monday, July 29, 2013 7:45 AM  
**To:** 'usepr@areva.com' (usepr@areva.com)  
**Cc:** Le, Tuan; Miernicki, Michael; Segala, John; Clark, Theresa  
**Subject:** U.S. EPR Design Certification Application FINAL RAI 594, Chapter 3.09.03, ASME Code Class 1, 2, and 3 Components  
**Attachments:** FINAL\_RAI\_594\_EMB\_7193.docx

Attached please find the subject request for additional information (RAI). A draft RAI was provided to you on July 17 2013. On July 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 August 29, 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  
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**From:** Snyder, Amy  
**Sent:** Friday, July 19, 2013 1:17 PM  
**To:** 'usepr@areva.com' ([usepr@areva.com](mailto:usepr@areva.com))  
**Cc:** Le, Tuan; Miernicki, Michael; Segala, John; Clark, Theresa  
**Subject:** U.S. EPR Design Certification Application DRAFT RAI 594, Chapter 3.09.03, ASME Code Class 1, 2, and 3 Components

Attached please find Draft RAI No. 594 regarding your application for standard design certification of the U.S. EPR. If you have any questions or need clarification regarding this Draft RAI, please let me know as soon as possible, I will have our technical Staff available to discuss them with you.


Please also review the draft RAI to ensure that we have not inadvertently included proprietary information. If there is any proprietary information, please let me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the Draft RAI publicly available.

*Amy*

Amy Snyder, U.S. EPR Design Certification Lead Project Manager  
Licensing Branch 1 (LB1)  
Division of New Reactor Licensing

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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 4628

**Mail Envelope Properties** (Amy.Snyder@nrc.gov20130729074400)

**Subject:** U.S. EPR Design Certification Application FINAL RAI 594, Chapter 3.09.03,  
ASME Code Class 1, 2, and 3 Components  
**Sent Date:** 7/29/2013 7:44:42 AM  
**Received Date:** 7/29/2013 7:44:00 AM  
**From:** Snyder, Amy

**Created By:** Amy.Snyder@nrc.gov

**Recipients:**

"Le, Tuan" <Tuan.Le@nrc.gov>  
Tracking Status: None  
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Tracking Status: None

**Post Office:**

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MESSAGE	2443	7/29/2013 7:44:00 AM
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**Options**

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

## Request for Additional Information 594

Issue Date: 07/29/2013

Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020

Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 03.09.03 - ASME Code Class 1, 2, and 3 Components

Application Section: 3.9.3

### QUESTIONS

03.09.03-27

During the July 8-11, 2013, regulatory audit of U.S. EPR component design specifications, the NRC staff identified that the design specification of “U.S. EPR RPV [Reactor Pressure Vessel] Closure Head Equipment (RPV-CHE)” did not specify a radial gap between the control rod drive mechanism (CRDM) displacement limiter and CRDM locking cross deflection tube. The specification also did not include the impact loads and anchor displacements due to the thermal growth. The design specification stated “later” in place of these design values. Based on Title 10 of the *Code of Federal Regulations* (10 CFR), Section 52.47(a), which requires a description and analysis of the facility’s structures, systems, and components, as well as General Design Criteria 1, 2, and 4 in Appendix A to 10 CFR Part 50, which relate to quality standards and design for earthquakes, the staff requests that the applicant provide the following:

- Design values of the radial gap, impact loads, and anchor displacement, as well as a detailed design drawing of the radial gap between the CRDM displacement limiter and CRDM locking cross deflection tube. Alternatively, describe the structural analysis methodologies and acceptance criteria used in determining these design values.
- Update FSAR Tier 2 document and related design specifications to include the design information and associated methodologies.