

## ArevaEPRDCPEm Resource

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**From:** Tesfaye, Getachew  
**Sent:** Friday, November 25, 2011 4:39 PM  
**To:** 'usepr@areva.com'  
**Cc:** Jenkins, Joel; Terao, David; Hearn, Peter; Colaccino, Joseph; ArevaEPRDCPEm Resource  
**Subject:** Draft - U.S. EPR Design Certification Application RAI No. 531 (6195), FSAR Ch. 5  
**Attachments:** Draft RAI\_531\_CIB1\_6195.doc

Attached please find draft RAI No. 531 regarding your application for standard design certification of the U.S. EPR. If you have any question or need clarifications regarding this 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 RAI to ensure that we have not inadvertently included proprietary information. If there are 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.

Thanks,  
Getachew Tesfaye  
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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 3589

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Request for Additional Information No. 531(6195), Revision 0

11/25/2011

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 05.03.02 - Pressure-Temperature Limits, Upper-Shelf Energy, and Pressurized Thermal Shock

Application Section: 5.3.2

QUESTIONS for Component Integrity, Performance, and Testing Branch 1 (AP1000/EPR Projects)  
(CIB1)

05.03.02-11

OPEN ITEM

Follow-up to RAI 278, Question 05.03.02-10

To address PTLR Criterion 4 (GL96-03), the applicant needs to clearly identify both the limiting adjusted reference temperature (ART) values and limiting materials at the  $1/4t$  and  $3/4t$  locations ( $t$ =vessel thickness) used in the development of the P-T limits. In response to RAI 278-3506 Question 05.03.02-10, the applicant stated that the limiting materials were the circumferential seam weld and the upper and lower shell forgings and provided the corresponding adjusted reference temperature values for each material. The staff found this response to be acceptable; however, based on the information provided in the U.S. EPR PTLR, it is unclear how both the limiting circumferential seam weld and the limiting forging material will be used to develop the P-T limit curve that represents the reactor vessel. Therefore, the staff requests that the applicant explain, in detail, specifically the use of both materials to develop the bounding P-T limit curves provided in the U.S. EPR PTLR. Please include all assumptions made and calculations performed.