

## ArevaEPRDCPEm Resource

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**From:** Tesfaye, Getachew  
**Sent:** Friday, September 23, 2011 7:59 AM  
**To:** 'usepr@areva.com'  
**Cc:** Lu, Shanlai; Donoghue, Joseph; Colaccino, Joseph; ArevaEPRDCPEm Resource  
**Subject:** U.S. EPR Design Certification Application RAI No. 514 (5998), FSAR Ch. 15  
**Attachments:** RAI\_514\_SRSB\_5998.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on September 14, 2011, and discussed with your staff on September 22, 2011. No change is made to the draft RAI as a result of that discussion. 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  
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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
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**From:** Tesfaye, Getachew

**Created By:** Getachew.Tesfaye@nrc.gov

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Request for Additional Information No. 514 (5998), Revision 0

9/23/2011

U. S. EPR Standard Design Certification  
AREVA NP Inc.  
Docket No. 52-020

SRP Section: 15.06.05 - Loss of Coolant Accidents Resulting From Spectrum of Postulated Piping  
Breaks Within the Reactor Coolant Pressure Boundary  
Application Section: 15.06.05.04

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

15.06.05-114

The latest in-vessel downstream effect fuel assembly head loss tests indicate that the measured head loss variation can be small with only fiber and particulate introduced into the test loop. Once the chemical precipitant was added into the test loop, the stabilized head loss and flow rate varied significantly. Considering the large differences among test results observed so far, evaluate the large variation and the repeatability of test results with regard to initial flow rate, debris loading, testing procedures and other contributing factors. Demonstrate that the measured head loss and flow rate are limiting with respect to design basis flow conditions corresponding to two-train, three-train and four-train ECCS operation.