

## ArevaEPRDCPEm Resource

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**From:** Tesfaye, Getachew  
**Sent:** Monday, April 25, 2011 7:54 PM  
**To:** 'usepr@areva.com'  
**Cc:** DeMarshall, Joseph; Kowal, Mark; Hearn, Peter; Canova, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource  
**Subject:** U.S. EPR Design Certification Application RAI No. 484 (5724), FSAR Ch. 16, NEW PHASE 4 RAI  
**Attachments:** RAI\_484\_CTSB\_5724.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on April 20, 2011, and discussed with your staff on April 20, 2011. Draft RAI Question 16-322 was revised 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  
Sr. Project Manager  
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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
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NEW PHASE 4 RAI  
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Request for Additional Information No. 484(5724), Revision 0

4/25/2011

U. S. EPR Standard Design Certification  
AREVA NP Inc.  
Docket No. 52-020  
SRP Section: 16 - Technical Specifications  
Application Section: SRP 16

QUESTIONS for Technical Specification Branch (CTSB)

16-322

NEW PHASE 4 RAI

OPEN ITEM

The U.S. EPR Technical Specifications (TS) do not include a Limiting Condition for Operation (LCO) for the Diverse Actuation System (DAS) in the Instrumentation section of the TS. DCD Section 7.8.1.1.3, "Diverse Actuation System," states that the DAS executes manual functions initiated from the Process Information and Control System (PICS) and automatic functions to mitigate an anticipated transient without scram (ATWS) or software common cause failure (SWCCF) of the protection system (PS). Section 7.8.1.1.3 also states that the DAS is diverse from the PS. In addition, DCD Section 15.8.1.3 states that the DAS includes logic that fulfills the ATWS requirements of 10 CFR 50.62 and that the DAS logic is independent from sensor output to the final actuation device from the primary safety-related TXS protection system (PS) design features, and provides a diverse means to trip the reactor, trip the turbine, and initiate emergency feedwater (EFW) on conditions indicative of an ATWS. It also states that these diverse functions provided by the DAS provide reasonable assurance that a pressure increase does not exceed the ASME Service Level C limit of 3200 psig or does not exceed containment safety parameters.

The staff requests the applicant to explain how the Instrumentation section of the U.S. EPR TS meets the requirements of Criterion 4 in 10 CFR 50.36 (c)(2)(ii)(D) with respect to the DAS/ATWS system. Criterion 4 states "A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety."