

ArevaEPRDCPEm Resource

From: Tesfaye, Getachew
Sent: Monday, June 27, 2011 4:34 PM
To: 'usepr@areva.com'
Cc: Scarbrough, Thomas; Terao, David; Miernicki, Michael; Jaffe, David; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 496 (5849), FSAR Ch. 14
Attachments: RAI_496_CIB1_5849.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on June 16, 2011, and discussed with your staff on June 27, 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
Email Number: 3162

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Request for Additional Information No. 496(5849), Revision 0

6/27/2011

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 14.03.03 - Piping Systems and Components - Inspections, Tests, Analyses, and
Acceptance Criteria

Application Section: 14.3.3

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

14.03.03-51

U.S. EPR FSAR Tier 1 does not appear to include Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for verifying that as-built components meet the functional design and qualification requirements for safety-related pumps and valves to perform their design-basis safety functions. For such ITAAC, the Design Commitment column should specify that pumps and valves identified in the applicable Tier 1 table will perform their safety-related functions under design-basis conditions. The Inspections, Tests, and Analyses column should specify, for example, that (1) qualification tests will be performed to demonstrate the capability of each component to perform its safety-related function under design-basis conditions; (2) inspections will be performed for the existence of a report verifying that the as-built components are bounded by the qualification tests; and (3) tests of the as-built components will be performed under preoperational flow, differential pressure, and temperature conditions to confirm the design-basis qualification. The Acceptance Criteria column should specify, for example, that (1) a qualification test report exists and concludes that each component will perform its safety-related function under design conditions; (2) a report exists and concludes that the as-built components are bounded by the qualification tests; and (3) each as-built component operates as indicated in the applicable ITAAC table under preoperational test conditions. The NRC staff requests that the U.S. EPR design certification applicant ensure that ITAAC for the functional design and qualification of pumps and valves to perform their safety-related functions under design-basis conditions are specified in the applicable sections of U.S. EPR FSAR Tier 1 (e.g., Sections 2.2.1 to 2.2.8, 2.3.3, 2.7.1, 2.7.2, 2.7.11, 2.8.2, 2.8.6, and 2.8.7).

14.03.03-52

Dynamic restraints (snubbers) used in the U.S. EPR must be designed and qualified to perform their design-basis safety functions. The NRC staff requests that the U.S. EPR design certification applicant specify where the design and qualification of as-built safety-related dynamic restraints are addressed in the ITAAC for the U.S. EPR, and develop any additional ITAAC as necessary to verify that as-built dynamic restraints are installed such that their design-basis safety function is accomplished in accordance with their design and qualification.