

ArevaEPRDCPEm Resource

From: Tesfaye, Getachew
Sent: Thursday, June 16, 2011 7:20 AM
To: 'usepr@areva.com'
Cc: Scarbrough, Thomas; Terao, David; Miernicki, Michael; Jaffe, David; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: Draft - U.S. EPR Design Certification Application RAI No. 496 (5841), FSAR Ch. 14
Attachments: Draft RAI_496_CIB1_5849.doc

Attached please find draft RAI No. 496 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
Sr. Project Manager
NRO/DNRL/NARP
(301) 415-3361

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Created By: Getachew.Tesfaye@nrc.gov

Recipients:

"Scarbrough, Thomas" <Thomas.Scarbrough@nrc.gov>
Tracking Status: None
"Terao, David" <David.Terao@nrc.gov>
Tracking Status: None
"Miernicki, Michael" <Michael.Miernicki@nrc.gov>
Tracking Status: None
"Jaffe, David" <David.Jaffe@nrc.gov>
Tracking Status: None
"Colaccino, Joseph" <Joseph.Colaccino@nrc.gov>
Tracking Status: None
"ArevaEPRDCPEm Resource" <ArevaEPRDCPEm.Resource@nrc.gov>
Tracking Status: None
"usepr@areva.com" <usepr@areva.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

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

6/16/2011

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.