ArevaEPRDCPEm Resource

From: Tesfaye, Getachew
Sent: Thursday, March 17, 2011 7:29 PM
To: 'usepr@areva.com'
Cc: Sastre, Eduardo; Terao, David; Jensen, Walton; Ashley, Clinton; Jackson, Christopher; McKirgan, John; Budzynski, John; Lu, Shanlai; Donoghue, Joseph; Carneal, Jason; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 480 (5625, 5440, 5613, 5573), FSAR Ch. 6
Attachments: RAI_480_CIB1_ 5625_SPCV_5440_5613_SRSB_5573.doc

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on March 11, 2011, and on March 16, 2011, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. 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
NRO/DNRL/NARP
(301) 415-3361

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 2723

Mail Envelope Properties (0A64B42AAA8FD4418CE1EB5240A6FED125D431BDF4)

Subject: U.S. EPR Design Certification Application RAI No. 480 (5625, 5440, 5613, 5573), FSAR Ch. 6
Sent Date: 3/17/2011 7:28:58 PM
Received Date: 3/17/2011 7:29:00 PM
From: Tesfaye, Getachew

Created By: Getachew.Tesfaye@nrc.gov

Recipients:
"Sastre, Eduardo" <Eduardo.Sastre@nrc.gov>
Tracking Status: None
"Terao, David" <David.Terao@nrc.gov>
Tracking Status: None
"Jensen, Walton" <Walton.Jensen@nrc.gov>
Tracking Status: None
"Ashley, Clinton" <Clinton.Ashley@nrc.gov>
Tracking Status: None
"Jackson, Christopher" <Christopher.Jackson@nrc.gov>
Tracking Status: None
"McKirgan, John" <John.McKirgan@nrc.gov>
Tracking Status: None
"Budzynski, John" <John.Budzynski@nrc.gov>
Tracking Status: None
"Lu, Shanlai" <Shanlai.Lu@nrc.gov>
Tracking Status: None
"Donoghue, Joseph" <Joseph.Donoghue@nrc.gov>
Tracking Status: None
"Carneal, Jason" <Jason.Carneal@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

Files	**Size**	**Date & Time**
MESSAGE	800	3/17/2011 7:29:00 PM
RAI_480_CIB1_ 5625_SPCV_5440_5613_SRSB_5573.doc	36346	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Request for Additional Information No. 480(5625, 5440, 5613, 5573), Revision 0

3/17/2011

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 06.01.02 - Protective Coating Systems (Paints) - Organic Materials
SRP Section: 06.02.02 - Containment Heat Removal Systems
SRP Section: 06.03 - Emergency Core Cooling System

Application Section: 6.1.2

QUESTIONS for Component Integrity, Performance, and Testing Branch 1 (AP1000/EPR Projects) (CIB1)
QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)
QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

06.01.02-10

OPEN ITEM

As defined in the current design certification rules, COL information items typically identify matters that must be addressed in the combined license FSAR and constitute information requirements but are not the only acceptable set of information in the FSAR. COL Information Item 6.1-2 does not appear to conform to this definition.

Therefore, the staff requests that the applicant revise the description of COL Information Item 6.1-2 to require that the COL applicant describe its plans for addressing components that cannot be procured with DBA qualified coatings.

06.01.02-11

OPEN ITEM

FSAR Tier 2, Section 6.1.2.2.2, “Coating Repairs and Limitations on Coating Thickness,” describes a maintenance program for coatings that ensures maintenance and repairs of coatings are performed following approved procedures. FSAR Tier 2, Section 6.1.2.3.5, “Protective Coating and Organic Materials Program,” states that the maintenance program complies with 10 CFR 50.65, “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants.” The Staff considers that the description and implementation of the coatings program are the responsibility of the COL applicant and are to be addressed by the COL applicant.

Therefore, the staff requests that the applicant provide a COL information item to require that the COL applicant describe the coatings program and its implementation, including maintenance and repair of coatings.

06.02.02-88

There is a lack of description regarding the instrumentation and control (I&C) functions of the safety-related CONVECT ventilation system in either Chapter 6 or 7 of the FSAR for US- EPR. The response to RAI 221 Question 06.02.01-16 should be incorporated in the FSAR. In addition, provide the information as listed in RG 1.206 Section C.I.7.3.1.2 “Design Basis Information” including the functional logic diagram for safety evaluation. Provide the analyses discussed in Section C.I.7.3.2 of RG 1.206.

06.02.02-89

Follow-up to RAI 297, Questions 06.02.02-39 and 06.02.02-40.

In RAI letter 297, Questions 06.02.02-39 and 06.02.02-40 the staff requested that AREVA, in part, assess US EPR for flashing and deaeration at the strainer under design basis conditions. The applicant's response is provided in report ANP-10293 section 3.2.2. The report indicates that flashing and deaeration are not a concern based on evaluating the maximum observed testing head loss (strainer). However, AREVA did not assess U.S. EPR for flashing and deaeration under design basis conditions. This design basis strainer head loss is listed as approximately 5.0 feet. Observed head loss during testing is less than 0.5 feet. Therefore, request AREVA to assess flashing and deaeration under the full range of design basis conditions (e.g. strainer submergence, strainer head loss, temperature of recirculating coolant etc.).

06.03-17

OPEN ITEM

Follow-up RAI 310, Question 06.03-12

In response to these questions, the applicant provided a discussion of their proposed plan to identify potential pathways for gas intrusion in the SIS/RHRS and incorporate design features that would prevent or control gas accumulation to acceptable levels. Some of the design features include high point vents in regions where the geometry may provide for gas accumulation, SIS accumulators equipped with safety-related pressure/level sensors to inform the operator of potential gas leakage from the accumulators, periodic venting per technical specifications, etc. However, the applicant’s response satisfies just two of the three requirements of the proposed staff guidance in DC/COL-ISG-019, “Proposed Interim Staff Guidance Review of Evaluation to Address Gas Accumulation Issues in Safety Related Systems.” The condition not discussed would include steps in ITAAC that require the applicant to compare the as-built plant configuration to the P&ID and isometric drawings to confirm that all potential gas accumulation areas have been properly identified and that appropriate prevention measures are in place. Provide an ITAAC that satisfies the guidance in ISG-019.