# **ArevaEPRDCPEm Resource**

From: Miernicki, Michael

Sent: Wednesday, November 06, 2013 9:51 AM
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Cc: Makar, Gregory; Terao, David; Hearn, Peter; Segala, John; Gleaves, Bill; ArevaEPRDCPEm

Resource

Subject: US EPR DC FINAL RAI 610, Chapter 10, Balance of Plant

Attachments: Final RAI 610\_CIB\_7261.docx

Attached please find subject request for additional information (RAI). A draft RAI was provided to you on October 23, 2013. On November 1, 2013, AREVA informed us that, the RAI is clear and does not contain proprietary information and that no further clarification is needed.

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 or December 6, 2013**, 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.

Thank you,

Mike

Michael J. Miernicki Sr. Project Manager NRC/NRO/DNRL/LB1 301-415-2304 **Hearing Identifier:** AREVA\_EPR\_DC\_RAIs

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# **Request for Additional Information 610**

Issue Date: 11/06/2013

Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020 Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 10.04.08 - Steam Generator Blowdown System

Application Section:

## **QUESTIONS**

## 10.04.08-5

FSAR Rev. 5 introduces piping and valves to connect the steam generator blowdown system (SGBS) lines of SG1 to those of SG2, and the lines of SG 3 to those of SG 4. Provide the classification information for the piping required for this design change and identify where it is documented in the application. FSAR Tier 2, Table 3.2.2-1, provides this information for valves but not for piping.

#### 10 04 08-6

The staff observed that RG 1.143 was deleted from the Comments section in FSAR Rev. 5, Tier 2, Table 3.2.2-1 for "All LCQ Piping and Valves in 4UJH Downstream of Outer Containment Isolation Valve." Explain the basis for the change and the use of ANSI/ASME B16.34 and RG 1.29 rather than RG 1.143.

## 10.04.08-7

FSAR Rev. 5, Tier 2, Section 10.4.8.1 introduces a design basis stating that radiation monitors R-46 through R-48 are designed to isolate the SGBS on high activity coupled with a partial cooldown signal. Provide the following information about this design feature:

- a. Discuss your plans for revising the FSAR to include monitor R-49 in this paragraph or provide the basis for excluding it. In Tier 1, Section 2.8.7, this design feature applies to monitors R-46 through R-49.
- b. This design feature appears to conflict with FSAR Tier 2 Section 10.4.8.3.3, which does not include these monitors in the description of accident conditions that actuate the blowdown isolation valves. Similarly, the last sentence of Section 10.4.8.3.2 appears to be inconsistent with the information in Section 10.4.8.3.3. Provide an explanation for these apparent inconsistencies and your plans for revising the FSAR.

## 10.04.08-8

The design change introducing the SGBS transfer lines includes safety-related components but does not appear to be discussed in FSAR Rev. 5, Tier 2, Section 10.4.8.4, "Safety Evaluation." Discuss your plans for revising the FSAR to address the design change. For example, address whether the single failure criterion is applied to the safety-related SGBS transfer valves, as it is for the containment isolation valves and steam generator blowdown isolation valves (i.e., last paragraph of Section 10.4.8.4).

## 10.04.08-9

Discuss your plans to ensure that the SGBS information in FSAR Rev. 5, Tier 1, Section 2.8.7, is consistent with the corresponding information in Tier 2, Section 10.4.8. For example, safety-related steam generator blowdown isolation based on high main steam activity and a partial cooldown signal is listed in Tier 1, Section 2.8.7, Items 1.0 and 4.4, but this isolation function is not discussed in Tier 2, Section 10.4.8, Subsection 10.4.8.2.2, in the description of the blowdown isolation valves. Similarly, Tier 1, Section 2.8.7, Item 4.4 states that the SGBS is isolated on high temperature downstream of the blowdown coolers, but this does not appear to be in Tier 2, Section 10.4.8.

## 10.04.08-10

FSAR Rev. 5, Tier 1, Tables 2.8.7-1 and 2.8.7-2 do not appear to include all of the transfer valves. These tables only list, "SG1 & w Blowdown Transfer Valve 1" and "SG1 & w Blowdown Transfer Valve 2." What is the "w" and why is SG1 the only steam generator included in these tables? Please provide any FSAR revisions planned to address this issue.