ArevaEPRDCPEm Resource

From:	RYAN Tom (AREVA) [Tom.Ryan@areva.com]
Sent:	Monday, April 15, 2013 9:00 AM
To:	Snyder, Amy
Cc:	DELANO Karen (AREVA); LEIGHLITER John (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); WILLS Tiffany (AREVA); HONMA George (EXTERNAL AREVA); WILLIFORD Dennis (AREVA); KOWALSKI David (AREVA)
Subject:	Response to U.S. EPR Design Certification Application FINAL RAI No. 575, FSAR Ch. 6
Attachments:	RAI 575 Response US EPR DC.pdf

Amy,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 575 Response US EPR DC," provides a schedule since a technically correct and complete response to the question is not provided.

The following table indicates the respective pages in the response document, "RAI 575 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 575 — 06.02.01-105	2	2

The schedule for a technically correct and complete response to this question is provided below.

Question #	Response Date
RAI 575 — 06.02.01-105	June 18, 2013

Sincerely,

Tom Ryan
Project Engineer
Regulatory Affairs
AREVA NP
An AREVA and Siemens company
7207 IBM Drive - CLT2B
Charlotte, NC 28262
Phone: 704-805-2643, Cell : 704-292-5627
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From: Snyder, Amy [mailto:Amy.Snyder@nrc.gov]
Sent: Friday, March 15, 2013 11:11 AM
To: ZZ-DL-A-USEPR-DL
Cc: Segala, John; Peng, Shie-Jeng; McKirgan, John; Gleaves, Bill
Subject: U.S. EPR Design Certification Application FINAL RAI No. 575, FSAR Ch. 6

Attached please find the subject request for additional information (RAI). Advanced RAI was provided to you on February 5, 2013. On February 19, 2013 you requested a clarification call. On February 20, 2013 the staff identified that they sent the wrong RAI and sent a modified advanced RAI. On February 21, 2013 this modified advanced RAI was discussed with your staff. As a result of this discussion, the RAI was revised by staff and sent to you on February 22, 2013. On February 28, 2013, we asked if the RAI is clear and if it contained proprietary information. On March 6, 2013, you informed us that the newly revised RAI is clear but recommended a slight wording change and informed us that the newly revised RAI does not contain AREVA Proprietary information. As a result, the staff modified the advanced RAI. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of this Final RAI or by **April 15, 2013**.. If this RAI question 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

Thank You,

Amy

Amy Snyder, U.S. EPR Design Certification Lead Project Manager
Licensing Branch 1 (LB1)
Division of New Reactor Licensing
Office of New Reactors
U.S. Nuclear Regulatory Commission
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Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 4326

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Subject: Response to U.S. EPR Design Certification Application FINAL RAI No. 575, FSAR Ch. 6
Sent Date: 4/15/2013 9:00:19 AM
Received Date: 4/15/2013 9:01:20 AM
From: RYAN Tom (AREVA)

Created By: Tom.Ryan@areva.com

Recipients:
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"Snyder, Amy" <Amy.Snyder@nrc.gov>
Tracking Status: None

Post Office: FUSLYNCMX03.fdom.ad.corp

Files	**Size**	**Date & Time**
MESSAGE	2846	4/15/2013 9:01:20 AM
RAI 575 Response US EPR DC.pdf	66931	

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

Response to

Request for Additional Information No.575, Revision 0

3/15/2013
U.S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020

SRP Section: 06.02.01 - Containment Functional Design
Application Section: SRSB Branch

Question 06.02.01-105:

This Question modified on 2/21/13.

This is a follow up to RAI82

Based on GDC 16, 38 and 50, the purpose of this RAI is to ensure that the components important to safety be designed to accommodate the effects of postulated accidents. The following is a request for the information on the methodology used to develop the heat sink data, e.g. thickness and total surface area as described in FSAR Table 6.2.1-4.

Clarity of Information for Tier 2 FSAR (Rev. 4) Table 6.2.1-4.

The methodology used to develop the heat sink data, e.g. thickness and total surface area as presented in the Tier 2 FSAR (Rev. 4) Table 6.2.1-4 is not provided. This information is required for the staff to understand and assure the consistency between FSAR information and GOTHIC analysis input data which was previously provided. It is noted that, in the FSAR, the total heat sink surface area for internal heat structure may be the total area exposed to the atmosphere, i.e. two-sided. However, the GOTHIC model assumes one side of the thermal conductor to be insulated. The FSAR should be updated to ensure the interpretation of the surface area's and the thickness data provided in the table is clear and consistent with previous RAI response. Consideration should also be given to the clarity and consistency of the ITAAC on surface area for these heat sinks.

For example, it is not clear for ITAAC per sheet 20 of FSAR Table 6.2.1-4 to inspect the thickness (full or half?) and total surface area (one-sided or two-sided?) for the internal steel in middle annulus rooms L3 & 4. However, it can be found from GOTHIC file (clps_np_s_sd3) that this internal steel has been modeled as the thermal conductor #31 subject to the conductor type #6. The GOTHIC model indicates that this internal steel has a thickness of 0.3386 in and surface area of 20764 ft2 on one conductive side while the other side is insulated. These numbers are consistent with those in FSAR Table 6.2.1-4's except no explanation is provided in FSAR for those numbers. Based on GOTHIC modeling, it can be interpreted that this internal steel should be inspected as having a thickness of 0.3386 and area of 20764 ft2 on one side while the other side is insulated, in other words, the area on the insulated side should not be counted. If it is the case, then such a description should be provided in FSAR to have a correct application to ITAAC inspection. The concern as delineated here is that any application of the FSAR information, for example, ITAAC inspection should be clear and consistently supported by the design analysis.

Note that the above is just an example for one simple internal heat structure. The applicant is requested to evaluate all the other internal heat structures to assure that a sufficient and clear description as consistently supported by the design analysis is provided in FSAR.

Response to Question 06.02.01-105:

A response to this question will be provided by June 18, 2013.