

ArevaEPRDCPEm Resource

From: WELLS Russell (AREVA) [Russell.Wells@areva.com]
Sent: Thursday, April 07, 2011 8:10 AM
To: Tesfaye, Getachew
Cc: GUCWA Len (EXTERNAL AREVA); Miernicki, Michael; BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 473 (5531), FSARCh. 6
Attachments: RAI 473 Response US EPR DC.PDF

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 473 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the 1 question is not provided.

The following table indicates the respective page in the response document, "RAI 473 Response US EPR DC.pdf," that contains AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 473 — 06.02.05-24	2	2

A complete answer is not provided for 1 of the 1 question. The schedule for a technically correct and complete response to this question is provided below.

Question #	Response Date
RAI 473 — 06.02.05-24	June 15, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

AREVA NP, Inc.

3315 Old Forest Road, P.O. Box 10935

Mail Stop OF-57

Lynchburg, VA 24506-0935

Phone: 434-832-3884 (work)

434-942-6375 (cell)

Fax: 434-382-3884

Russell.Wells@Areva.com

From: Tesfaye, Getachew [<mailto:Getachew.Tesfaye@nrc.gov>]

Sent: Monday, March 07, 2011 7:48 PM

To: ZZ-DL-A-USEPR-DL

Cc: Grady, Anne-Marie; Jackson, Christopher; McKirgan, John; Carneal, Jason; Colaccino, Joseph; ArevaEPRDCPEm

Resource

Subject: U.S. EPR Design Certification Application RAI No. 473 (5531), FSARCh. 6

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on February 15, 2011, and on March 4, 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: 2819

Mail Envelope Properties (1F1CC1BBDC66B842A46CAC03D6B1CD4104330370)

Subject: Response to U.S. EPR Design Certification Application RAI No. 473 (5531),
FSARCh. 6
Sent Date: 4/7/2011 8:09:44 AM
Received Date: 4/7/2011 8:09:47 AM
From: WELLS Russell (AREVA)

Created By: Russell.Wells@areva.com

Recipients:

"GUCWA Len (EXTERNAL AREVA)" <Len.Gucwa.ext@areva.com>
Tracking Status: None
"Miernicki, Michael" <Michael.Miernicki@nrc.gov>
Tracking Status: None
"BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com>
Tracking Status: None
"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
"ROMINE Judy (AREVA)" <Judy.Romine@areva.com>
Tracking Status: None
"RYAN Tom (AREVA)" <Tom.Ryan@areva.com>
Tracking Status: None
"Tsfaye, Getachew" <Getachew.Tsfaye@nrc.gov>
Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	2288	4/7/2011 8:09:47 AM
RAI 473 Response US EPR DC.PDF		8779

Options

Priority: Standard
Return Notification: No
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Sensitivity: Normal
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Recipients Received:

Response to

Request for Additional Information No. 473(5531), Revision 0

03/07/2011

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 06.02.05 - Combustible Gas Control in Containment

Application Section: 6.2.5

**QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects)
(SPCV)**

Question 06.02.05-24:

OPEN ITEM

Follow-up to RAI 372, Question 06.02.05-15

In the US EPR FSAR, chapter 19.2.4.4.5.2, the applicant lists the equipment and instrumentation in containment which must withstand the conditions expected to occur during a severe accident. This equipment is also identified in Table 19.2-2, "SAHRS Design and Operating Parameters" and in Table 19.2-3, "Severe Accident Instrumentation and Equipment", (in containment equipment and instrumentation only).

In the response to RAI 372, Question 06.02.05-15 (supplement 4), AREVA has indicated that their primary source for performance expectations of equipment similar to that described above can be found in EPRI NP-4354, "Large-Scale Hydrogen Burn Equipment Experiments," December 1985. In this report, equipment types including pressure transmitters, MOV valve operators, limit switches, containment penetrations, RTDs and electric cables were tested in the presence of hydrogen burns. The increase in temperature of the tested equipment was noted and the operability post burn was noted. The relevance of the EPRI test results depends on two factors – the similarity of the design between the AREVA specified equipment and the devices tested by EPRI, and the equivalence of the EPRI burn conditions with those of the US EPR containment temperature and pressure during hydrogen burning.

The staff asks the applicant to:

- a. provide a justification, item by item, that the equipment identified above as requiring a survivability assessment is sufficiently similar to the equipment tested by EPRI in 1985, and;
- b. to provide the temperature and pressure vs. time throughout the containment during a hydrogen burn in an amount equivalent to that generated from a fuel clad-coolant reaction involving 100% of the fuel cladding. Provide a description of the scenario modeled, and address whether or not the PARs were credited as functioning.

Response to Question 06.02.05-24:

A response to this question will be provided by June 15, 2011.