ArevaEPRDCPEm Resource

From: WELLS Russell D (AREVA NP INC) [Russell.Wells@areva.com]
Sent: Tuesday, April 20, 2010 10:50 AM
To: Tesfaye, Getachew
Cc: BRYAN Martin (EXT); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 256, FSAR Ch 2, Supplement 2
Attachments: RAI 256 Supplement 2 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 3 of the 7 questions of RAI No. 256 on February 26, 2010. AREVA NP provided Supplement 1 on April 2, 2010 to revise the commitment date for the remaining questions. The attached file, "RAI 256 Supplement 2 Response US EPR DC.pdf" provides technically correct and complete responses to 2 of the remaining 4 questions.

Appended to this file is the affected page of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which supports the response to RAI 256 Question 02.03.05-6.

The following table indicates the respective pages in the response document, "RAI 256 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 256 — 02.03.05-6	2	2
RAI 256 — 02.03.05-7 (Part 4)	3	3

The schedule for technically correct and complete responses to the remaining 2 questions has been changed based on discussion and comments from NRC staff on April 19, 2010. This additional time is necessary to process the required changes to the responses.

Question #	Response Date
RAI 256—02.03.01-13	May 4, 2010
RAI 256—02.03.01-14	May 4, 2010

Sincerely,

(Russ Wells on behalf of)
Martin (Marty) C. Bryan
Licensing Advisory Engineer
AREVA NP Inc.
Tel: (434) 832-3016
Martin.Bryan.ext@areva.com

From: BRYAN Martin (EXT)
Sent: Friday, April 02, 2010 4:11 PM
To: 'Getachew.Tesfaye@nrc.gov'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); WILLIFORD Dennis C (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 256, FSAR Ch. 2, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 3 of the 7 questions of RAI No. 256 on February 26, 2010. To allow time for AREVA to discuss proposed responses to the remaining 4 questions with the NRC staff, a revised schedule is provided in this e-mail.

The schedule for technically correct and complete responses to the remaining 4 questions has been changed as provided below:

Question #	Response Date
RAI 256 — 02.03.01-13	**April 20, 2010**
RAI 256 — 02.03.01-14	**April 20, 2010**
RAI 256 — 02.03.05-6	**April 20, 2010**
RAI 256 — 02.03.05-7	**April 20, 2010**

Sincerely,

Martin (Marty) C. Bryan
Licensing Advisory Engineer
AREVA NP Inc.
Tel: (434) 832-3016
Martin.Bryan@areva.com

From: BRYAN Martin (EXT)
Sent: Friday, February 26, 2010 5:17 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); ROMINE Judy (AREVA NP INC); WILLIFORD Dennis C (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 256, FSAR Ch. 2

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 256 Response US EPR DC.pdf" provides technically correct and complete responses to 3 of the 7 questions.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the response to RAI 256 Questions 02.03.01-15, 02.03.04-7, and 02.03.04-8.

The following table indicates the respective pages in the response document, "RAI 256 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 256 — 02.03.01-13	2	2
RAI 256 — 02.03.01-14	3	4
RAI 256 — 02.03.01-15	5	6
RAI 256 — 02.03.04-7	7	9

RAI 256 — 02.03.04-8	10	11
RAI 256 — 02.03.05-6	12	12
RAI 256 — 02.03.05-7	13	13

A complete answer is not provided for 4 of the 7 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 256 — 02.03.01-13	April 2, 2010
RAI 256 — 02.03.01-14	April 2, 2010
RAI 256 — 02.03.05-6	April 2, 2010
RAI 256 — 02.03.05-7	April 2, 2010

Sincerely,

Martin (Marty) C. Bryan
Licensing Advisory Engineer
AREVA NP Inc.
Tel: (434) 832-3016
Martin.Bryan.ext@areva.com

From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Friday, July 24, 2009 4:19 PM
To: ZZ-DL-A-USEPR-DL
Cc: Harvey, Brad; Hart, Michelle; Patel, Jay; Lauron, Carolyn; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 256 (2937, 2938,2940), FSAR Ch. 2

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on July 7, 2009, and discussed with your staff on July 23, 2009. No changes were made to the Draft RAI Questions as a result of that discussion. As we informed you during our discussion, the questions in this RAI are considered potential open items for Phases 2 and 3 reviews. As such, the schedule we have established for your application assumes technically correct and complete responses prior to the start of Phase 4 review. For any RAIs that cannot be answered prior to the start of Phase 4 review, it is expected that a date for receipt of this information will be provided 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: 1327

Mail Envelope Properties (1F1CC1BBDC66B842A46CAC03D6B1CD4102CC9F83)

Subject: Response to U.S. EPR Design Certification Application RAI No. 256, FSAR Ch 2, Supplement 2
Sent Date: 4/20/2010 10:50:14 AM
Received Date: 4/20/2010 10:50:18 AM
From: WELLS Russell D (AREVA NP INC)

Created By: Russell.Wells@areva.com

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Tracking Status: None
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Tracking Status: None
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Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

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MESSAGE	5659	4/20/2010 10:50:18 AM
RAI 256 Supplement 2 Response US EPR DC.pdf	126607	

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

Response to

Request for Additional Information No. 256, Supplement 2

7/24/2009

U.S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 02.03.01 - Regional Climatology
SRP Section: 02.03.04 - Short Term Atmospheric Dispersion Estimates for Accident Releases
SRP Section: 02.03.05 - Long-Term Atmospheric Dispersion Estimates for Routine Releases
Application Section: FSAR Ch. 2

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

Question 02.03.05-6:

POTENTIAL OPEN ITEM

This question is related to the applicant's response to RAI 02.03.05-4.

Include the annual average ground deposition (D/Q) value of 5.0E-08 m^{-2} (which is listed as an input to the GASPAR II computer code in FSAR Tier 2 Table 11.3-4) as a site parameter in FSAR Tier 2 Table 2.1-1.

Table 1 in Appendix A to SRP 2.0 lists routine release D/Q values at the site boundary as an example of a site parameter that should be listed in a design certification.

Response to Question 02.03.05-6:

U.S. EPR FSAR Tier 2, Table 2.1-1 will be revised to include the annual average ground deposition (D/Q) value of 5.0E-08 m^{-2} as a site parameter.

FSAR Impact:

U.S. EPR FSAR Tier 2, Table 2.1-1 will be revised as described in the response and indicated on the enclosed markup.

Question 02.03.05-7:

POTENTIAL OPEN ITEM

This question is related, in part, to the applicant's response to RAI 02.03.04-4.

The legend in FSAR Tier 2 Figure 1.2-3 (Plant Configuration) defines location "UKH" as the "vent stack."

1. Confirm that this is the same release location for the gaseous waste management system which is referred to as the "nuclear auxiliary building ventilation stack" in FSAR Tier 2 Section 11.3.1.2.3 and the "plant stack" in FSAR Tier 2 Section 11.3.3.3.
2. Confirm that this is the same release location for several design-basis accidents which is referred to as the "main stack" throughout FSAR Tier 2 Section 15.0.3.
3. Compare and explain the bases for the assumptions that (1) the release point for the gaseous waste management system is at the top of the plant stack (i.e., release height of 211 feet (64.3 meters) per FSAR Tier 2 Section 11.3.3.3) versus (2) one of the release points for many of the design-basis accidents is at the base of the main stack (i.e., release height of 32.1 meters per Table 2.3-3 provided in the response to RAI 02.03.04-4).
4. Confirm that the release point for the gaseous waste management system is uncapped and vertically oriented.

Response to Question 02.03.05-7:

1. Response provided in RAI 256 submittal on February 26, 2010.
2. Response provided in RAI 256 submittal on February 26, 2010.
3. Response provided in RAI 256 submittal on February 26, 2010.
4. U.S. EPR FSAR Tier 2, Figure 1.2-1—3-Dimensional Conceptual Configuration of U.S. EPR Buildings shows that the vent stack, which is the release point for the gaseous waste management system, is a vertical structure. There are no caps in the U.S. EPR design of the vent stack.

FSAR Impact:

The U.S. EPR FSAR will not be changed as a result of this question.

U.S. EPR Final Safety Analysis Report Markups

Table 2.1-1—U.S. EPR Site Design Envelope
Sheet 5 of 7

U.S. EPR Site Design Envelope	
Potential for Water Freezing in the UHS Water Storage Facility (Sections 2.4.7 and 9.2.5)	As presented in Sections 2.4.
UHS Design Parameters (Section 9.2.5)	
Maximum UHS Evaporative Water Loss	571 gpm
Maximum Drift Water Loss	≤0.005%
Design Cold (outlet) Water Temperature	≤95°F (max ESWS supply de
Atmospheric Dispersion and Deposition Factors (χ/Q) (D/Q) (Refer to Section 2.3)	
Maximum Annual Average (~~0.5 mile~~ limiting sector)	02.03.05-6 → ≤4.973E-06 s/m^3 (χ/Q) ≤5.0E-08 m^{-2} (D/Q)
Accident	
0-2 hr (EAB~~, 0.5 miles~~)	≤1E-03 s/m^3
0-2 hr (LPZ~~, 1.5 miles~~)	≤1.75E-04 s/m^3
2-8 hr (LPZ~~, 1.5 miles~~)	≤1.35E-04 s/m^3
8-24 hr (LPZ~~, 1.5 miles~~)	≤1.00E-04 s/m^3
1-4 day (LPZ~~, 1.5 miles~~)	≤5.40E-05 s/m^3
4-30 day (LPZ~~, 1.5 miles~~)	≤2.20E-05 s/m^3