ArevaEPRDCPEm Resource

From: BRYAN Martin (EXTERNAL AREVA) [Martin.Bryan.ext@areva.com]
Sent: Wednesday, January 26, 2011 7:53 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (AREVA); ROMINE Judy (AREVA); WILLIFORD Dennis (AREVA); HAYS Lynn (AREVA); GARDNER Darrell (AREVA)
Subject: DRAFT Response to U.S. EPR Design Certification Application RAI No. 453, FSAR Ch. 2, NEW PHASE 4 RAI
Attachments: RAI 453 Supplement 3 Response US EPR DC - DRAFT.pdf

Getachew,

To support the final response date of February 14, 2011 for RAI 453 Questions 02.03.04-10 and 02.03.05-9, draft responses are attached. Let me know if the staff has questions or if the response can be sent as final.

Thanks,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Thursday, December 16, 2010 3:33 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WILLIFORD Dennis (RS/NB); 'Miernicki, Michael'
Subject: Response to U.S. EPR Design Certification Application RAI No. 453, FSAR Ch. 2, NEW PHASE 4 RAI, Supplement 1

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to RAI No. 453 on December 6, 2010. The attached file, "RAI 453 Supplement 1 Response US EPR DC.pdf" provides technically correct and complete responses to 4 of the 8 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 453 Questions 02.03.01-17, 02.03.01-18, and 02.03.04-13.

The following table indicates the respective pages in the response document, "RAI 453 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 453 — 02.03.01-17	2	3
RAI 453 — 02.03.01-18	4	4
RAI 453 — 02.03.01-19	5	5
RAI 453 — 02.03.04-13	6	6

To provide additional time to interact with the NRC staff and address their concerns, a revised schedule is provided below (bolded dates have changed) for the remaining 4 questions.

Question #	Response Date
RAI 453 — 02.03.04-10	February 14, 2011
RAI 453 — 02.03.04-11	**January 28, 2011**
RAI 453 — 02.03.04-12	**January 28, 2011**
RAI 453 — 02.03.05-9	February 14, 2011

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
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Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Monday, December 06, 2010 5:10 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WILLIFORD Dennis (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 453, FSAR Ch. 2, NEW PHASE 4 RAI

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 453 Response US EPR DC.pdf," provides a schedule since technically correct and complete responses to the 8 questions are not provided.

The following table indicates the respective pages in the response document, "RAI 453 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 453 — 02.03.01-17	2	2
RAI 453 — 02.03.01-18	3	3
RAI 453 — 02.03.01-19	4	4
RAI 453 — 02.03.04-10	5	5
RAI 453 — 02.03.04-11	6	6
RAI 453 — 02.03.04-12	7	8
RAI 453 — 02.03.04-13	9	9
RAI 453 — 02.03.05-9	10	10

The schedule for technically correct and complete responses to these questions is provided below.

Question #	Response Date
RAI 453 — 02.03.01-17	January 14, 2011
RAI 453 — 02.03.01-18	January 14, 2011
RAI 453 — 02.03.01-19	January 14, 2011
RAI 453 — 02.03.04-10	February 14, 2011
RAI 453 — 02.03.04-11	January 14, 2011
RAI 453 — 02.03.04-12	January 14, 2011
RAI 453 — 02.03.04-13	January 14, 2011
RAI 453 — 02.03.05-9	February 14, 2011

Sincerely,

Martin (Marty) C. Bryan
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From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Friday, November 05, 2010 8:55 AM
To: ZZ-DL-A-USEPR-DL
Cc: Harvey, Brad; Brown, David; Patel, Jay; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 453(5109, 5110,5111), FSAR Ch. 2, NEW PHASE 4 RAI

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on October 25, 2010, and on November 2, 2010, 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: 2483

Mail Envelope Properties (199EBB4D1CD9644D9472AA84D5D8EFA7164B08)

Subject: DRAFT Response to U.S. EPR Design Certification Application RAI No. 453, FSAR Ch. 2, NEW PHASE 4 RAI
Sent Date: 1/26/2011 7:52:30 PM
Received Date: 1/26/2011 7:53:46 PM
From: BRYAN Martin (EXTERNAL AREVA)

Created By: Martin.Bryan.ext@areva.com

Recipients:
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Tracking Status: None
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Tracking Status: None
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Tracking Status: None
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Files	**Size**	**Date & Time**
MESSAGE	5309	1/26/2011 7:53:46 PM
RAI 453 Supplement 3 Response US EPR DC - DRAFT.pdf	308159	

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

Response to

Request for Additional Information No. 453 (5109, 5110, 5111), Supplement 3, Revision 1

11/05/2010

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 Chapter 2

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

DRAFT

Question 02.03.04-10:

OPEN ITEM

NEW PHASE 4 RAI

This question is related to the applicant's response to RAI 10, Question 02.03.04-1.

The response to RAI 10, Question 02.03.04-1 states, in part, that the U.S. EPR 0-2 hour LPZ χ/Q site parameter value was based on a χ/Q value derived from using meteorological data from the Calvert Cliffs (CCNPP) site. Yet, Revision 6 to the CCNPP Unit 3 COL application requires a departure from the U.S. EPR 0-2 hour LPZ χ/Q site parameter value (1.75E-4 sec/m^3) because the corresponding CCNPP 0-2 hour LPZ χ/Q site characteristic value (2.151E-4 sec/m^3) is higher.

Please justify why the U.S. EPR 0-2 hour LPZ χ/Q site parameter value should not be revised to ensure that a departure will not be required for the CCNPP COL application, especially since, according to the response to RAI 10, Question 02.03.04-1, the U.S. EPR 0-2 hour LPZ χ/Q site parameter value is based on data from the CCNPP site.

Response to Question 02.03.04-10:

The U.S. EPR 0-2 hour LPZ χ/Q site parameter value was based on a χ/Q value derived using five years of meteorological data (2000-2004) from the Calvert Cliffs (CCNPP) site. Revision 0 of the CCNPP Unit 3 COLA also used the same 2000-2004 meteorological data from the CCNPP site. A commitment was made in Rev. 0 of the COLA to provide an update to the COL application that provides the impact of the most recent one-year period on the site-specific atmospheric dispersion for the exclusion area boundary and at the outer boundary of the low population zone (LPZ). The latest update to the COLA (Revision 6) used two years of the most recent meteorological data (2005 and 2006) in addition to the data from 2000-2004 in the updated dispersion analysis. As a result of the inclusion of the 2006 meteorological data, the COLA 0-2 hour LPZ χ/Q site characteristic value was larger than the U.S. EPR 0-2 hour LPZ χ/Q site parameter value.

Regulatory Guide 1.145 does not require the use of the 0-2 hour χ/Q value for the LPZ; however, the 0-2 hour χ/Q value was used since it provides conservative dose results.

The radiological dose results for the COL applicant are well within the regulatory limits, therefore, this is not a public health and safety issue. A revision to the U.S. EPR χ/Q values would also require a corresponding revision of the dose calculations in the accident analyses in Chapter 15 without an increased safety benefit. Additionally, even if the χ/Q values and radiological accident analyses were revised, it would not preclude the potential for future COL applicants from having slightly higher χ/Q values based on their site-specific meteorological data and require future departures even though doses remained within regulatory limits. The selected X/Q values for the U.S. EPR are representative, and therefore there is no need to update the U.S. EPR dispersion analysis and accident dose consequences solely due to more recent meteorological data submitted by the COL applicant subsequent to the submittal of the Design Certification application in December 2007.

DRAFT

FSAR Impact:

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

DRAFT

Question 02.03.05-9:

OPEN ITEM

NEW PHASE 4 RAI

This question is related to the applicant's response to RAI 10, Question 02.03.05-1.

The response to RAI 10, Question 02.03.05-1 states, in part, that the U.S. EPR maximum annual average χ/Q site parameter value was based on a χ/Q value derived from using meteorological data from the Calvert Cliffs (CCNPP) site. Yet, Revision 6 to the CCNPP Unit 3 COL application requires a departure from the U.S. EPR maximum annual average χ/Q site parameter value (4.973E-6 sec/m^3) because the corresponding CCNPP site characteristic value (5.039E-6 sec/m^3) is higher.

Please justify why the U.S. EPR maximum annual average χ/Q site parameter value should not be revised to ensure that a departure will not be required for the CCNPP COL application, especially since, according to the response to RAI 10, Question 02.03.05-1, the U.S. EPR maximum annual average χ/Q site parameter value is based on data from the CCNPP site.

Response to Question 02.03.05-9:

The U.S. EPR maximum annual average χ/Q value was derived using six years (2000 – 2005) of meteorological data from the Calvert Cliffs (CCNPP) site. Revision 0 of the CCNPP Unit 3 COLA also used the same six years of meteorological data from the CCNPP site. A commitment was made in Rev. 0 of the COLA to provide an update to the COL application to provide the impact of the most recent one-year period on the site-specific atmospheric transport and diffusion characteristics. The latest update to the COLA (Revision 6) uses one additional year of meteorological data (2006) in addition to the data from 2000-2005. Revision 6 of the CCNPP Unit 3 COLA provides a maximum annual average χ/Q value derived using seven years (2000-2006) of meteorological data from the CCNPP site. As a result of the inclusion of the 2006 meteorological data, the COLA maximum annual average χ/Q value was larger than the U.S. EPR maximum annual average χ/Q value.

The radiological dose results for the COL applicant are well within the regulatory limits, therefore, this is not a public health and safety issue. A revision to the U.S. EPR maximum annual average χ/Q value would also require a corresponding revision of the dose calculations in the routine radiological effluent release analyses in Chapter 11 without an increased safety benefit. Additionally, even if the χ/Q value and routine effluent release dose analyses were revised, it would not preclude the potential for future COL applicants from having a slightly higher χ/Q value based on their site-specific meteorological data and require future departures even though doses remained within regulatory limits. The selected maximum annual average X/Q value for the U.S. EPR is representative, and therefore there is no need to update the U.S. EPR dispersion analysis and routine effluent release dose consequences based on more recent meteorological data submitted by the COL applicant subsequent to the submittal of the Design Certification application in December 2007.

FSAR Impact:

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

DRAFT