ArevaEPRDCPEm Resource

From: BRYAN Martin (EXTERNAL AREVA) [Martin.Bryan.ext@areva.com]
Sent: Wednesday, February 09, 2011 1:42 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (AREVA); ROMINE Judy (AREVA); BENNETT Kathy (AREVA); WELLS Russell (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 10
Attachments: RAI 386 Supplement 10 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, Supplement 4, and Supplement 5 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, September 9, 2010, and September 22, 2010, respectively, to provide a revised schedule. Supplement 7 was submitted to NRC on November 10, 2010 which provided technically correct and complete responses to 9 of the 24 questions and provided a revised schedule for the remaining 15 questions. Supplement 8 was submitted to NRC on November 29, 2010 and Supplement 9 was submitted to NRC on January 21, 2011 to provide a revised schedule for the response to the remaining questions.

The attached file, "RAI 386 Supplement 10 Response US EPR DC.pdf" provides technically correct and complete responses to 1 of the remaining 15 questions.

The following table indicates the respective pages in the response document, "RAI 386 Supplement 10 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 386 — 14.03.03-37	2	2

The schedule for the remaining 14 questions has not changed and is provided below.

Question #	Response Date
RAI 386 — 14.02-149	March 25, 2011
RAI 386 — 14.02-150	March 25, 2011
RAI 386 — 14.02-151	March 25, 2011
RAI 386 — 14.02-152	March 25, 2011
RAI 386 — 14.02-156	March 25, 2011
RAI 386 — 14.02-158	March 25, 2011
RAI 386 — 14.02-159	March 25, 2011
RAI 386 — 14.03.02-44	March 25, 2011
RAI 386 — 14.03.02-45	March 25, 2011
RAI 386 — 14.03.02-49	March 25, 2011
RAI 386 — 14.03.02-50	March 25, 2011
RAI 386 — 14.03.02-51	March 25, 2011
RAI 386 — 14.03.03-46	March 25, 2011
RAI 386 — 14.03.08-2	March 25, 2011

Sincerely,

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: Friday, January 21, 2011 9:23 AM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WELLS Russell (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 9

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, Supplement 4, and Supplement 5 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, September 9, 2010, and September 22, 2010, respectively, to provide a revised schedule. Supplement 7 was submitted to NRC on November 10, 2010 which provided technically correct and complete responses to 9 of the 24 questions and provided a revised schedule for the remaining 15 questions. Supplement 8 was submitted to NRC on November 29, 2010 to provide a revised schedule for the response to the remaining questions. In order to allow time for interaction with the NRC, the schedule for a technically correct and complete FINAL response to the remaining questions has been revised and is provided below.

Question #	Response Date
RAI 386 — 14.02-149	March 25, 2011
RAI 386 — 14.02-150	March 25, 2011
RAI 386 — 14.02-151	March 25, 2011
RAI 386 — 14.02-152	March 25, 2011
RAI 386 — 14.02-156	March 25, 2011
RAI 386 — 14.02-158	March 25, 2011
RAI 386 — 14.02-159	March 25, 2011
RAI 386 — 14.03.02-44	March 25, 2011
RAI 386 — 14.03.02-45	March 25, 2011
RAI 386 — 14.03.02-49	March 25, 2011
RAI 386 — 14.03.02-50	March 25, 2011
RAI 386 — 14.03.02-51	March 25, 2011
RAI 386 — 14.03.03-37	March 25, 2011
RAI 386 — 14.03.03-46	March 25, 2011
RAI 386 — 14.03.08-2	March 25, 2011

Sincerely,

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: Monday, November 29, 2010 6:55 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WELLS Russell (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 8

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, Supplement 4, and Supplement 5 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, September 9, 2010, and September 22, 2010, respectively, to provide a revised schedule. Supplement 7 was submitted to NRC on November 10, 2010 which provided technically correct and complete responses to 9 of the 24 questions and provided a revised schedule for the remaining 15 questions. To provide additional time to interact with the NRC, a revised schedule is provided in this e-mail for the response to the remaining questions.

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	Response Date
RAI 386 — 14.02-149	January 27, 2011
RAI 386 — 14.02-150	January 27, 2011
RAI 386 — 14.02-151	January 27, 2011
RAI 386 — 14.02-152	January 27, 2011
RAI 386 — 14.02-156	January 27, 2011
RAI 386 — 14.02-158	January 27, 2011
RAI 386 — 14.02-159	January 27, 2011
RAI 386 — 14.03.02-44	January 27, 2011
RAI 386 — 14.03.02-45	January 27, 2011
RAI 386 — 14.03.02-49	January 27, 2011
RAI 386 — 14.03.02-50	January 27, 2011
RAI 386 — 14.03.02-51	January 27, 2011
RAI 386 — 14.03.03-37	January 27, 2011
RAI 386 — 14.03.03-46	January 27, 2011
RAI 386 — 14.03.08-2	January 27, 2011

Sincerely,

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: Wednesday, November 10, 2010 2:10 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 7

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, Supplement 4, Supplement 5, and Supplement 6 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, September 9, 2010, September 22, 2010, and October 25, 2010, respectively, to provide a revised schedule.

The attached file, "RAI 386 Supplement 7 Response US EPR DC.pdf" provides technically correct and complete responses to nine questions.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which supports the response to RAI 345 Questions 14.02-157, 14.03.02-48, and 14.03.08-3.

The following table indicates the respective pages in the response document, "RAI 386 Supplement 7 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 386 — 14.02-153	2	2
RAI 386 — 14.02-154	3	3
RAI 386 — 14.02-155	4	4
RAI 386 — 14.02-157	5	5
RAI 386 — 14.02-160	6	6
RAI 386 — 14.03.02-46	7	7
RAI 386 — 14.03.02-47	8	8
RAI 386 — 14.03.02-48	9	10
RAI 386 — 14.03.08-3	11	11

The schedule for the remaining 15 questions has not changed and is provided below.

Question #	Response Date
RAI 386 — 14.02-149	December 7, 2010
RAI 386 — 14.02-150	December 7, 2010
RAI 386 — 14.02-151	December 7, 2010
RAI 386 — 14.02-152	December 7, 2010
RAI 386 — 14.02-156	December 7, 2010
RAI 386 — 14.02-158	December 7, 2010
RAI 386 — 14.02-159	December 7, 2010
RAI 386 — 14.03.02-44	December 7, 2010
RAI 386 — 14.03.02-45	December 7, 2010
RAI 386 — 14.03.02-49	December 7, 2010
RAI 386 — 14.03.02-50	December 7, 2010

RAI 386 — 14.03.02-51	December 7, 2010
RAI 386 — 14.03.03-37	December 7, 2010
RAI 386 — 14.03.03-46	December 7, 2010
RAI 386 — 14.03.08-2	December 7, 2010

Sincerely,

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: Monday, October 25, 2010 1:22 PM
To: 'Getachew.Tesfaye@nrc.gov'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 6

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, Supplement 4, and Supplement 5 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, September 9, 2010, and September 22, 2010, respectively, to provide a revised schedule.

To provide additional time to interact with the NRC, a revised schedule is provided in this e-mail for the response to the questions.

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	Response Date
RAI 386 — 14.02-149	December 7, 2010
RAI 386 — 14.02-150	December 7, 2010
RAI 386 — 14.02-151	December 7, 2010
RAI 386 — 14.02-152	December 7, 2010
RAI 386 — 14.02-153	December 7, 2010
RAI 386 — 14.02-154	December 7, 2010
RAI 386 — 14.02-155	December 7, 2010
RAI 386 — 14.02-156	December 7, 2010
RAI 386 — 14.02-157	December 7, 2010
RAI 386 — 14.02-158	December 7, 2010
RAI 386 — 14.02-159	December 7, 2010
RAI 386 — 14.02-160	December 7, 2010
RAI 386 — 14.03.02-44	December 7, 2010
RAI 386 — 14.03.02-45	December 7, 2010
RAI 386 — 14.03.02-46	December 7, 2010

RAI 386 — 14.03.02-47	December 7, 2010
RAI 386 — 14.03.02-48	December 7, 2010
RAI 386 — 14.03.02-49	December 7, 2010
RAI 386 — 14.03.02-50	December 7, 2010
RAI 386 — 14.03.02-51	December 7, 2010
RAI 386 — 14.03.03-37	December 7, 2010
RAI 386 — 14.03.03-46	December 7, 2010
RAI 386 — 14.03.08-2	December 7, 2010
RAI 386 — 14.03.08-3	December 7, 2010

Sincerely,

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: Wednesday, September 22, 2010 12:31 PM
To: Tesfaye, Getachew
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 5

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. Supplement 1, Supplement 2, Supplement 3, and Supplement 4 responses to RAI No. 386 were sent on July 15, 2010, August 12, 2010, August 26, 2010, and September 9, 2010, respectively, to provide a revised schedule.

To provide additional time to interact with the NRC, a revised schedule is provided in this e-mail for the response to the questions.

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	**Response Date**
RAI 386 — 14.02-149	October 28, 2010
RAI 386 — 14.02-150	October 28, 2010
RAI 386 — 14.02-151	October 28, 2010
RAI 386 — 14.02-152	October 28, 2010
RAI 386 — 14.02-153	October 28, 2010
RAI 386 — 14.02-154	October 28, 2010
RAI 386 — 14.02-155	October 28, 2010
RAI 386 — 14.02-156	October 28, 2010
RAI 386 — 14.02-157	October 28, 2010
RAI 386 — 14.02-158	October 28, 2010
RAI 386 — 14.02-159	October 28, 2010
RAI 386 — 14.02-160	October 28, 2010
RAI 386 — 14.03.02-44	October 28, 2010

RAI 386 — 14.03.02-45	October 28, 2010
RAI 386 — 14.03.02-46	October 28, 2010
RAI 386 — 14.03.02-47	October 28, 2010
RAI 386 — 14.03.02-48	October 28, 2010
RAI 386 — 14.03.02-49	October 28, 2010
RAI 386 — 14.03.02-50	October 28, 2010
RAI 386 — 14.03.02-51	October 28, 2010
RAI 386 — 14.03.03-37	October 28, 2010
RAI 386 — 14.03.03-46	October 28, 2010
RAI 386 — 14.03.08-2	October 28, 2010
RAI 386 — 14.03.08-3	October 28, 2010

Sincerely,

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, September 09, 2010 2:30 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 4

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010.

AREVA NP Inc. provided technically correct and complete draft responses to 11 of the 24 questions in "RAI 386 Supplement 1 Response – DRAFT.pdf" on July 8, 2010. A revised schedule was provided in Supplement 1 on July 15, 2010, in Supplement 2 on August 12, 2010, and in Supplement 3 on August 26, 2010. To allow time for interaction between AREVA and the NRC staff, a revised schedule for submittal of final responses is provided in this e-mail.

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	Response Date
RAI 386 — 14.02-149	October 28, 2010
RAI 386 — 14.02-150	October 28, 2010
RAI 386 — 14.02-151	October 14, 2010
RAI 386 — 14.02-152	October 14, 2010
RAI 386 — 14.02-153	October 28, 2010
RAI 386 — 14.02-154	October 28, 2010
RAI 386 — 14.02-155	October 28, 2010
RAI 386 — 14.02-156	October 14, 2010

RAI 386 — 14.02-157	October 28, 2010
RAI 386 — 14.02-158	October 14, 2010
RAI 386 — 14.02-159	October 14, 2010
RAI 386 — 14.02-160	October 28, 2010
RAI 386 — 14.03.02-44	September 23, 2010
RAI 386 — 14.03.02-45	September 23, 2010
RAI 386 — 14.03.02-46	October 28, 2010
RAI 386 — 14.03.02-47	October 28, 2010
RAI 386 — 14.03.02-48	October 28, 2010
RAI 386 — 14.03.02-49	September 23, 2010
RAI 386 — 14.03.02-50	September 23, 2010
RAI 386 — 14.03.02-51	September 23, 2010
RAI 386 — 14.03.03-37	September 23, 2010
RAI 386 — 14.03.03-46	October 28, 2010
RAI 386 — 14.03.08-2	September 23, 2010
RAI 386 — 14.03.08-3	September 23, 2010

Sincerely,

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, August 26, 2010 8:27 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 3

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010.

AREVA NP Inc. provided technically correct and complete draft responses to 11 of the 24 questions in “RAI 386 Supplement 1 Response – DRAFT.pdf” on July 8, 2010. A revised schedule was provided in Supplement 1 on July 15, 2010 and in Supplement 2 on August 12, 2010. To allow time for interaction between AREVA and the NRC staff, a revised schedule for submittal of final responses is provided in this e-mail.

The schedule for technically correct and complete responses has been revised and is provided below:

Question #	**Response Date**
RAI 386 — 14.02-149	September 9, 2010
RAI 386 — 14.02-150	September 9, 2010

RAI 386 — 14.02-151	October 14, 2010
RAI 386 — 14.02-152	October 14, 2010
RAI 386 — 14.02-153	September 9, 2010
RAI 386 — 14.02-154	September 9, 2010
RAI 386 — 14.02-155	September 9, 2010
RAI 386 — 14.02-156	October 14, 2010
RAI 386 — 14.02-157	September 9, 2010
RAI 386 — 14.02-158	October 14, 2010
RAI 386 — 14.02-159	October 14, 2010
RAI 386 — 14.02-160	September 9, 2010
RAI 386 — 14.03.02-44	September 23, 2010
RAI 386 — 14.03.02-45	September 23, 2010
RAI 386 — 14.03.02-46	September 9, 2010
RAI 386 — 14.03.02-47	September 9, 2010
RAI 386 — 14.03.02-48	September 9, 2010
RAI 386 — 14.03.02-49	September 23, 2010
RAI 386 — 14.03.02-50	September 23, 2010
RAI 386 — 14.03.02-51	September 23, 2010
RAI 386 — 14.03.03-37	September 23, 2010
RAI 386 — 14.03.03-46	September 9, 2010
RAI 386 — 14.03.08-2	September 23, 2010
RAI 386 — 14.03.08-3	September 23, 2010

Sincerely,

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 (EXT)
Sent: Thursday, August 12, 2010 6:02 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony F (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 2

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010. A revised schedule was provided in Supplement 1 on July 15, 2010.

AREVA NP Inc. provided technically correct and complete DRAFT responses to 7 of the 24 questions in "RAI 386 Supplement 1 Response – DRAFT.pdf" on July 8, 2010. To allow time for interaction between AREVA and the NRC staff, a revised schedule for submittal of final responses for these 7 questions is provided in this e-mail.

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	Response Date
RAI 386 — 14.02-149	September 9, 2010
RAI 386 — 14.02-150	September 9, 2010
RAI 386 — 14.02-151	August 26, 2010
RAI 386 — 14.02-152	August 26, 2010
RAI 386 — 14.02-153	September 9, 2010
RAI 386 — 14.02-154	September 9, 2010
RAI 386 — 14.02-155	September 9, 2010
RAI 386 — 14.02-156	August 26, 2010
RAI 386 — 14.02-157	September 9, 2010
RAI 386 — 14.02-158	August 26, 2010
RAI 386 — 14.02-159	August 26, 2010
RAI 386 — 14.02-160	September 9, 2010
RAI 386 — 14.03.02-44	August 26, 2010
RAI 386 — 14.03.02-45	August 26, 2010
RAI 386 — 14.03.02-46	August 26, 2010
RAI 386 — 14.03.02-47	August 26, 2010
RAI 386 — 14.03.02-48	August 26, 2010
RAI 386 — 14.03.02-49	August 26, 2010
RAI 386 — 14.03.02-50	August 26, 2010
RAI 386 — 14.03.02-51	August 26, 2010
RAI 386 — 14.03.03-37	August 26, 2010
RAI 386 — 14.03.03-46	August 26, 2010
RAI 386 — 14.03.08-2	August 26, 2010
RAI 386 — 14.03.08-3	August 26, 2010

Sincerely,

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 (EXT)
Sent: Thursday, July 15, 2010 1:03 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); LENTZ Tony F (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 1

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 24 questions in RAI No. 386 on June 3, 2010.

AREVA NP Inc. provided technically correct and complete DRAFT responses to 7 of the 24 questions in RAI No. 386 on July 8, 2010. To allow additional time for interaction between AREVA and the NRC staff, a revised schedule for submittal of final responses for these 7 questions is provided in this e-mail (386-14.02-149, 150, 153, 154, 155, 157 and 160).

The schedule for technically correct and complete responses to the questions has been revised and is provided below:

Question #	Response Date
RAI 386 — 14.02-149	**August 12, 2010**
RAI 386 — 14.02-150	**August 12, 2010**
RAI 386 — 14.02-151	August 26, 2010
RAI 386 — 14.02-152	August 26, 2010
RAI 386 — 14.02-153	**August 12, 2010**
RAI 386 — 14.02-154	**August 12, 2010**
RAI 386 — 14.02-155	**August 12, 2010**
RAI 386 — 14.02-156	August 26, 2010
RAI 386 — 14.02-157	**August 12, 2010**
RAI 386 — 14.02-158	August 26, 2010
RAI 386 — 14.02-159	August 26, 2010
RAI 386 — 14.02-160	**August 12, 2010**
RAI 386 — 14.03.02-44	August 26, 2010
RAI 386 — 14.03.02-45	August 26, 2010
RAI 386 — 14.03.02-46	August 26, 2010
RAI 386 — 14.03.02-47	August 26, 2010
RAI 386 — 14.03.02-48	August 26, 2010
RAI 386 — 14.03.02-49	August 26, 2010
RAI 386 — 14.03.02-50	August 26, 2010
RAI 386 — 14.03.02-51	August 26, 2010
RAI 386 — 14.03.03-37	August 26, 2010
RAI 386 — 14.03.03-46	August 26, 2010
RAI 386 — 14.03.08-2	August 26, 2010
RAI 386 — 14.03.08-3	August 26, 2010

Sincerely,

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 (EXT)
Sent: Thursday, June 03, 2010 7:02 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); LENTZ

Tony F (EXT); RYAN Tom (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 386(4306,4418,4532,4349,2666,4512,4341), FSAR Ch. 14

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 386 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the 24 questions is not provided.

The following table indicates the respective pages in the response document, "RAI 386 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 386 — 14.02-149	2	2
RAI 386 — 14.02-150	3	3
RAI 386 — 14.02-151	4	4
RAI 386 — 14.02-152	5	5
RAI 386 — 14.02-153	6	6
RAI 386 — 14.02-154	7	7
RAI 386 — 14.02-155	8	8
RAI 386 — 14.02-156	9	9
RAI 386 — 14.02-157	10	10
RAI 386 — 14.02-158	11	11
RAI 386 — 14.02-159	12	12
RAI 386 — 14.02-160	13	13
RAI 386 — 14.03.02-44	14	15
RAI 386 — 14.03.02-45	16	16
RAI 386 — 14.03.02-46	17	17
RAI 386 — 14.03.02-47	18	18
RAI 386 — 14.03.02-48	19	19
RAI 386 — 14.03.02-49	20	20
RAI 386 — 14.03.02-50	21	21
RAI 386 — 14.03.02-51	22	22
RAI 386 — 14.03.03-37	23	23
RAI 386 — 14.03.03-46	24	24
RAI 386 — 14.03.08-2	25	26
RAI 386 — 14.03.08-3	27	27

A complete answer is not provided for the 24 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 386 — 14.02-149	July 15, 2010
RAI 386 — 14.02-150	July 15, 2010
RAI 386 — 14.02-151	August 26, 2010
RAI 386 — 14.02-152	August 26, 2010
RAI 386 — 14.02-153	July 15, 2010
RAI 386 — 14.02-154	July 15, 2010

RAI 386 — 14.02-155	July 15, 2010
RAI 386 — 14.02-156	August 26, 2010
RAI 386 — 14.02-157	July 15, 2010
RAI 386 — 14.02-158	August 26, 2010
RAI 386 — 14.02-159	August 26, 2010
RAI 386 — 14.02-160	July 15, 2010
RAI 386 — 14.03.02-44	August 26, 2010
RAI 386 — 14.03.02-45	August 26, 2010
RAI 386 — 14.03.02-46	August 26, 2010
RAI 386 — 14.03.02-47	August 26, 2010
RAI 386 — 14.03.02-48	August 26, 2010
RAI 386 — 14.03.02-49	August 26, 2010
RAI 386 — 14.03.02-50	August 26, 2010
RAI 386 — 14.03.02-51	August 26, 2010
RAI 386 — 14.03.03-37	August 26, 2010
RAI 386 — 14.03.03-46	August 26, 2010
RAI 386 — 14.03.08-2	August 26, 2010
RAI 386 — 14.03.08-3	August 26, 2010

Sincerely,

Martin (Marty) C. Bryan
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AREVA NP Inc.
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From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Tuesday, May 04, 2010 1:52 PM
To: ZZ-DL-A-USEPR-DL
Cc: Keim, Andrea; Rasmussen, Richard; Dehmel, Jean-Claude; Bernal, Sara; Roach, Edward; Jeng, David; Hawkins, Kimberly; Ng, Ching; Dixon-Herrity, Jennifer; Miernicki, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 386(4306,4418,4532,4349,2666,4512,4341), FSAR Ch. 14

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on April 6, 2010, and discussed with your staff on May 4, 2010. Drat RAI Question 14.03.02-47 was modified as a result of that discussion. 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: 2523

Mail Envelope Properties (199EBB4D1CD9644D9472AA84D5D8EFA71C8D25)

Subject: Response to U.S. EPR Design Certification Application RAI No. 386, FSAR Ch. 14, Supplement 10
Sent Date: 2/9/2011 1:41:49 PM
Received Date: 2/9/2011 1:41:51 PM
From: BRYAN Martin (EXTERNAL AREVA)

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

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"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
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MESSAGE	27590	2/9/2011 1:41:51 PM
RAI 386 Supplement 10 Response US EPR DC.pdf	61728	

Options
Priority: Standard
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Reply Requested: No
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Expiration Date:
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Response to

Request for Additional Information No. 386, Supplement 10 (4306, 4418, 4532, 4349, 2666, 4512, 4341), Revision 0

5/4/2010

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
SRP Section: 14.03.02 - Structural and Systems Engineering - Inspections, Tests, Analyses, and Acceptance Criteria
SRP Section: 14.03.03 - Piping Systems and Components - Inspections, Tests, Analyses, and Acceptance Criteria
SRP Section: 14.03.08 - Radiation Protection Inspections, Tests, Analyses, and Acceptance Criteria

Application Section: SRP 14.02 (NUREG 0800)

QUESTIONS for Quality and Vendor Branch 2 (ESBWR/ABWR) (CQVB)
QUESTIONS for Health Physics Branch (CHPB)
QUESTIONS for Structural Engineering Branch 2 (ESBWR/ABWR Projects) (SEB2)
QUESTIONS for Engineering Mechanics Branch 2 (ESBWR/ABWR Projects) (EMB2)

Question 14.03.03-37:

In EPR FSAR Tier 2, Section 3.9.3.1, Areva indicated that a COL applicant referencing the US EPR design certification will provide summary of the maximum total stress, deformation, and cumulative usage factor value for each ASME Code Class I components. Corresponding ITAAC is provided in Tier 1, Table 2.2.1-5, item 3.11, to address a) fatigue analysis and b) for components identified as ASME Code Class I, operating modes where peak stress are within 10 percent of allowable have been identified. The staff found that ASME Code Class I components are also located in other systems including, but not limit to, Safety Injection System and Residual Heat Removal System (Tier 1, Section 2.2.3) and Extra Borating System (Tier 1, Section 2.2.7). However, an ITAAC similar to Tier 1, Table 2.2.1-5, item 3.11 addressing fatigue design and analysis is not included in those sections. The staff requests the applicant to include the ITAAC addressing the fatigue issue for ASME Code Class I components in appropriate sections in Tier 1 of the FSAR.

4.03.03-38 thru 14.03.03-45 were issued in RAIs 255, 260, and 307.

Response to Question 14.03.03-37:

The U.S. EPR FSAR Tier 1, Table 2.2.1-5, Item 3.11 ITAAC referenced in the question was replaced in the same table by Items 3.25, 3.26, 3.27, and 3.28 in response to RAI 210, Question 14.3.3-33. These ITAAC specify ASME code requirements and delete the redundant fatigue ITAAC. Compliance with the ASME Code Section III design requirements is explicitly required by these revised ITAAC which therefore includes fatigue analysis requirements. U.S. EPR FSAR Tier 1, Table 2.2.7-3—Extra Borating System ITAAC, Items 3.15, 3.16, 3.17 and 3.18 apply the same requirements as those for the reactor coolant system (RCS). Similarly, U.S. EPR FSAR Tier 1, Table 2.2.3-3—Safety Injection System and Residual Heat Removal System ITAAC, Items 3.15, 3.16, 3.17, and 3.18 apply the same requirements as the RCS and the extra borating system (EBS).

Changes to the FSAR:

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