

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Friday, July 08, 2011 11:46 AM  
**To:** Tesfaye, Getachew  
**Cc:** BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); NOXON David (AREVA)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 7

Getachew,

AREVA NP Inc. letter NRC 11:071 dated June 8, 2011 provides technically correct and complete final responses to 5 questions (03.08.04-16, 03.08.04-17, 03.08.04-18, 03.08.04-22 and 03.08.04-26), and interim responses to 5 questions (03.08.04-15, 03.08.04-19, 03.08.04-20, 03.08.04-21, and 03.08.04-27). AREVA considers some of the material contained in the response to be proprietary information. As required by 10 CFR 2.390(b), an affidavit is provided to support the withholding of the proprietary information from public disclosure. Proprietary and non-proprietary versions of the enclosure to this letter are provided separately.

The following table indicates the respective pages in the enclosure that contain AREVA NP's response to the subject questions.

<b>Question #</b>	<b>Start Page</b>	<b>End Page</b>
RAI 445 — 03.08.04-15 (Interim)	2	18
RAI 445 — 03.08.04-16 (Final)	19	19
RAI 445 — 03.08.04-17 (Final)	20	22
RAI 445 — 03.08.04-18 (Final)	23	24
RAI 445 — 03.08.04-19 (Interim)	25	45
RAI 445 — 03.08.04-20 (Interim)	46	64
RAI 445 — 03.08.04-21 (Interim)	65	67
RAI 445 — 03.08.04-22 (Final)	68	69
RAI 445 — 03.08.04-26 (Final)	70	70
RAI 445 — 03.08.04-27 (Interim)	71	73

The schedule for a technically correct and complete final response to the remaining 5 questions in RAI 445 has been changed as provided below:

<b>Question #</b>	<b>Response Date</b>
RAI 445 — 03.08.04-15 (Final)	<b>November 15, 2011</b>
RAI 445 — 03.08.04-19 (Final)	<b>November 15, 2011</b>
RAI 445 — 03.08.04-20 (Final)	<b>November 15, 2011</b>
RAI 445 — 03.08.04-21 (Final)	<b>November 15, 2011</b>
RAI 445 — 03.08.04-27 (Final)	<b>November 15, 2011</b>

The interim responses contain commitments to update Technical Report TN-Rack.0101. Revision 1 of Technical Report TN-Rack.0101 will be provided by September 16, 2011 to support the U.S. EPR design certification, Phase 2, Chapter 3 SER. Revision 2 of the Technical Report TN-Rack.0101 will be provided by November 15, 2011, to support the U.S. EPR design certification, Phase 4, Chapter 3 SER.

Sincerely,

**Dennis Williford, P.E.**  
**U.S. EPR Design Certification Licensing Manager**  
**AREVA NP Inc.**  
7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262  
Phone: 704-805-2223  
Email: [Dennis.Williford@areva.com](mailto:Dennis.Williford@areva.com)

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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Tuesday, May 31, 2011 1:45 PM  
**To:** 'Tesfaye, Getachew'  
**Cc:** BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 6

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. Supplement 1 was submitted to the NRC on January 27, 2011, Supplement 2 on February 25, 2011, and Supplement 3 on March 23, 2011 to revise the schedule. Supplement 4, submitted to the NRC on April 14, 2011, provided complete responses to 3 of the 13 remaining questions and a revised schedule for Question 03.08.04-20. Supplement 5 was submitted on April 22, 2011 to revise the schedule for 9 of the 10 questions.

To allow additional time to address NRC comments resulting from the audit of the fuel racks conducted April 27th - April 29th, the schedule for a technically correct and complete response to the remaining 10 questions in RAI 445 has been changed as provided below.

<b>Question #</b>	<b>Response Date</b>
RAI 445 — 03.08.04-15	<b>July 8, 2011</b>
RAI 445 — 03.08.04-16	<b>July 8, 2011</b>
RAI 445 — 03.08.04-17	<b>July 8, 2011</b>
RAI 445 — 03.08.04-18	<b>July 8, 2011</b>
RAI 445 — 03.08.04-19	<b>July 8, 2011</b>
RAI 445 — 03.08.04-20	<b>July 8, 2011</b>
RAI 445 — 03.08.04-21	<b>July 8, 2011</b>
RAI 445 — 03.08.04-22	<b>July 8, 2011</b>
RAI 445 — 03.08.04-26	<b>July 8, 2011</b>
RAI 445 — 03.08.04-27	<b>July 8, 2011</b>

Sincerely,

**Dennis Williford, P.E.**  
**U.S. EPR Design Certification Licensing Manager**  
**AREVA NP Inc.**  
7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262  
Phone: 704-805-2223  
Email: [Dennis.Williford@areva.com](mailto:Dennis.Williford@areva.com)

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**From:** WELLS Russell (RS/NB)  
**Sent:** Friday, April 22, 2011 4:01 PM

**To:** 'Tesfaye, Getachew'

**Cc:** WILLIFORD Dennis (RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 5

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. Supplement 1 was submitted to the NRC on January 27, 2011, Supplement 2 on February 25, 2011, and Supplement 3 on March 23, 2011 to revise the schedule. Supplement 4, submitted to the NRC on April 14, 2011, provided complete responses to 3 of the 13 remaining questions and a revised schedule for Question 03.08.04-20.

To allow additional time to interact with NRC staff during the audit of the fuel racks scheduled for April 27th through April 29th, the schedule for a technically correct and complete response to 9 of the 10 questions has been changed as provided below. The schedule for a technically correct and complete response to the remaining question is unchanged as provided below.

<b>Question #</b>	<b>Response Date</b>
RAI 445 — 03.08.04-15	<b>May 31, 2011</b>
RAI 445 — 03.08.04-16	<b>May 31, 2011</b>
RAI 445 — 03.08.04-17	<b>May 31, 2011</b>
RAI 445 — 03.08.04-18	<b>May 31, 2011</b>
RAI 445 — 03.08.04-19	<b>May 31, 2011</b>
RAI 445 — 03.08.04-20	May 31, 2011
RAI 445 — 03.08.04-21	<b>May 31, 2011</b>
RAI 445 — 03.08.04-22	<b>May 31, 2011</b>
RAI 445 — 03.08.04-26	<b>May 31, 2011</b>
RAI 445 — 03.08.04-27	<b>May 31, 2011</b>

*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](mailto:Russell.Wells@Areva.com)*

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**From:** WELLS Russell (RS/NB)

**Sent:** Thursday, April 14, 2011 2:00 PM

**To:** 'Tesfaye, Getachew'

**Cc:** WILLIFORD Dennis (RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 4

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. Supplement 1 was submitted to the NRC on January 27, 2011, Supplement 2 on February 25, 2011, and Supplement 3 on March 23, 2011 to revise the schedule. The attached file, "RAI 445 Supplement 4 Response US EPR DC.pdf" provides a technically correct and complete final response to 3 of the 13 questions.

Appended to this file are affected pages of the U.S. EPR New and Spent Fuel Storage Rack Technical Report, TN-Rack.0101, in redline-strikeout format which support the response to RAI 445 Question 03.08.04-24.

The following table indicates the respective pages in the response document, "RAI 445 Supplement 4 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 445 — 03.08.04-23	2	3
RAI 445 — 03.08.04-24	4	5
RAI 445 — 03.08.04-25	6	6

To allow additional time to interact with NRC staff, the schedule for a technically correct and complete response to Question 03.08.04-20 has been changed and is provided below. The schedule for a technically correct and complete response to the remaining questions is unchanged as provided below.

Question #	Response Date
RAI 445 — 03.08.04-15	April 28, 2011
RAI 445 — 03.08.04-16	April 28, 2011
RAI 445 — 03.08.04-17	April 28, 2011
RAI 445 — 03.08.04-18	April 28, 2011
RAI 445 — 03.08.04-19	April 28, 2011
RAI 445 — 03.08.04-20	<b>May 31, 2011</b>
RAI 445 — 03.08.04-21	April 28, 2011
RAI 445 — 03.08.04-22	April 28, 2011
RAI 445 — 03.08.04-26	April 28, 2011
RAI 445 — 03.08.04-27	April 28, 2011

*Sincerely,*

*Russ Wells*

*U.S. EPR Design Certification Licensing Manager  
AREVA NP, Inc.*

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*Fax: 434-382-3884*

*[Russell.Wells@Areva.com](mailto:Russell.Wells@Areva.com)*

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**From:** WELLS Russell (RS/NB)

**Sent:** Wednesday, March 23, 2011 10:53 AM

**To:** 'Tesfaye, Getachew'

**Cc:** WILLIFORD Dennis (RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 3

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. Supplement 1 was submitted to the NRC on January 27, 2011 and Supplement 2 on February 25, 2011 to revise the schedule. To allow additional time to interact with NRC staff, the schedule has been revised.

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

<b>Question #</b>	<b>Response Date</b>
RAI 445 — 03.08.04-15	<b>April 28, 2011</b>
RAI 445 — 03.08.04-16	<b>April 28, 2011</b>
RAI 445 — 03.08.04-17	<b>April 28, 2011</b>
RAI 445 — 03.08.04-18	<b>April 28, 2011</b>
RAI 445 — 03.08.04-19	<b>April 28, 2011</b>
RAI 445 — 03.08.04-20	April 15, 2011
RAI 445 — 03.08.04-21	<b>April 28, 2011</b>
RAI 445 — 03.08.04-22	<b>April 28, 2011</b>
RAI 445 — 03.08.04-23	<b>April 28, 2011</b>
RAI 445 — 03.08.04-24	<b>April 28, 2011</b>
RAI 445 — 03.08.04-25	<b>April 28, 2011</b>
RAI 445 — 03.08.04-26	<b>April 28, 2011</b>
RAI 445 — 03.08.04-27	<b>April 28, 2011</b>

*Sincerely,*

*Russ Wells*

*U.S. EPR Design Certification Licensing Manager*

*AREVA NP, Inc.*

*3315 Old Forest Road, P.O. Box 10935*

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*[Russell.Wells@Areva.com](mailto:Russell.Wells@Areva.com)*

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**From:** WELLS Russell (RS/NB)

**Sent:** Friday, February 25, 2011 10:15 AM

**To:** 'Tesfaye, Getachew'

**Cc:** BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BRYAN Martin (External RS/NB); WILLIFORD Dennis (RS/NB)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. Supplement 1 was submitted to the NRC on January 27, 2011 to revise the schedule. To allow additional time to interact with NRC staff, the schedule has been revised.

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

<b>Question #</b>	<b>Response Date</b>
RAI 445 — 03.08.04-15	<b>March 29, 2011</b>
RAI 445 — 03.08.04-16	<b>March 29, 2011</b>
RAI 445 — 03.08.04-17	<b>March 29, 2011</b>
RAI 445 — 03.08.04-18	<b>March 29, 2011</b>
RAI 445 — 03.08.04-19	<b>March 29, 2011</b>
RAI 445 — 03.08.04-20	April 15, 2011
RAI 445 — 03.08.04-21	<b>March 29, 2011</b>
RAI 445 — 03.08.04-22	<b>March 29, 2011</b>
RAI 445 — 03.08.04-23	<b>March 29, 2011</b>
RAI 445 — 03.08.04-24	<b>March 29, 2011</b>
RAI 445 — 03.08.04-25	<b>March 29, 2011</b>
RAI 445 — 03.08.04-26	<b>March 29, 2011</b>
RAI 445 — 03.08.04-27	<b>March 29, 2011</b>

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*

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*Fax: 434-382-3884*

*[Russell.Wells@Areva.com](mailto:Russell.Wells@Areva.com)*

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**From:** BRYAN Martin (External RS/NB)

**Sent:** Thursday, January 27, 2011 12:11 PM

**To:** 'Tefsaye, 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. 445, FSAR Ch. 3, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 445 on October 29, 2010. To allow additional time to finalize the responses and interact with NRC staff, the schedule has been revised. The response for RAI 445, Question 03.08.04-20 has been revised to allow time to complete additional analyses and provide the results in order to address NRC concerns.

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

Question #	Response Date
RAI 445 — 03.08.04-15	February 28, 2011
RAI 445 — 03.08.04-16	February 28, 2011
RAI 445 — 03.08.04-17	February 28, 2011
RAI 445 — 03.08.04-18	February 28, 2011
RAI 445 — 03.08.04-19	February 28, 2011
RAI 445 — 03.08.04-20	April 15, 2011
RAI 445 — 03.08.04-21	February 28, 2011
RAI 445 — 03.08.04-22	February 28, 2011
RAI 445 — 03.08.04-23	February 28, 2011
RAI 445 — 03.08.04-24	February 28, 2011
RAI 445 — 03.08.04-25	February 28, 2011
RAI 445 — 03.08.04-26	February 28, 2011
RAI 445 — 03.08.04-27	February 28, 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](mailto:Martin.Bryan.ext@areva.com)

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**From:** BRYAN Martin (External RS/NB)  
**Sent:** Friday, October 29, 2010 4:03 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. 445, FSAR Ch. 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 445 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the 13 questions can not be provided at this time.

The following table indicates the respective pages in the response document, "RAI 445 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 445 — 03.08.04-15	2	3
RAI 445 — 03.08.04-16	4	4
RAI 445 — 03.08.04-17	5	5
RAI 445 — 03.08.04-18	6	6
RAI 445 — 03.08.04-19	7	8
RAI 445 — 03.08.04-20	9	9
RAI 445 — 03.08.04-21	10	10
RAI 445 — 03.08.04-22	11	11

RAI 445 — 03.08.04-23	12	12
RAI 445 — 03.08.04-24	13	13
RAI 445 — 03.08.04-25	14	14
RAI 445 — 03.08.04-26	15	15
RAI 445 — 03.08.04-27	16	16

A complete answer is not provided for the 13 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 445 — 03.08.04-15	January 27, 2011
RAI 445 — 03.08.04-16	January 27, 2011
RAI 445 — 03.08.04-17	January 27, 2011
RAI 445 — 03.08.04-18	January 27, 2011
RAI 445 — 03.08.04-19	January 27, 2011
RAI 445 — 03.08.04-20	January 27, 2011
RAI 445 — 03.08.04-21	January 27, 2011
RAI 445 — 03.08.04-22	January 27, 2011
RAI 445 — 03.08.04-23	January 27, 2011
RAI 445 — 03.08.04-24	January 27, 2011
RAI 445 — 03.08.04-25	January 27, 2011
RAI 445 — 03.08.04-26	January 27, 2011
RAI 445 — 03.08.04-27	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](mailto:Martin.Bryan.ext@areva.com)

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**From:** Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]  
**Sent:** Friday, October 01, 2010 10:05 AM  
**To:** ZZ-DL-A-USEPR-DL  
**Cc:** Xu, Jim; Hawkins, Kimberly; Miernicki, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource  
**Subject:** U.S. EPR Design Certification Application RAI No. 445 (5083), FSARCh. 3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on September 16, 2010, and on September 30, 2010, you informed us that the RAI is clear and no further clarification is needed. You also pointed out that the staff has inadvertently included proprietary information in some of the questions. As a result, Draft RAI Questions 03.08.04-17, 03.08.04-18, 03.08.04-19, 03.08.04-20, and 03.08.04-26 were modified. 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:** 3208

**Mail Envelope Properties** (2FBE1051AEB2E748A0F98DF9EEE5A5D47EBA23)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 445, FSAR Ch. 3, Supplement 7  
**Sent Date:** 7/8/2011 11:46:03 AM  
**Received Date:** 7/8/2011 11:46:13 AM  
**From:** WILLIFORD Dennis (AREVA)

**Created By:** Dennis.Williford@areva.com

**Recipients:**  
"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  
"NOXON David (AREVA)" <David.Noxon@areva.com>  
Tracking Status: None  
"Tsfaye, Getachew" <Getachew.Tsfaye@nrc.gov>  
Tracking Status: None

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<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	17691	7/8/2011 11:46:13 AM

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