# ArevaEPRDCPEm Resource

From:	BRYAN Martin (EXTERNAL AREVA) [Martin.Bryan.ext@areva.com]
Sent:	Thursday, July 15, 2010 7:13 PM
То:	Tesfaye, Getachew
Cc:	DELANO Karen (AREVA); ROMINE Judy (AREVA); BENNETT Kathy (AREVA); VAN NOY Mark (EXTERNAL AREVA); CORNELL Veronica (EXTERNAL AREVA)
Subject:	Response to U.S. EPR Design Certification Application RAI No. 376, FSAR Ch. 3, Supplement 5 - Interim
Attachments:	RAI 376 Question 03.08.05-24 Response - INTERIM.pdf

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to RAI No. 376 on April 26, 2010. AREVA NP submitted Supplement 1 to the response on May 20, 2010 to address 1 of the remaining 14 questions. AREVA NP submitted Supplement 2 to the response on June 8, 2010, to change the schedule for responding to Question 03.08.05-30. AREVA NP submitted Supplement 3 to the response on June 24, 2010, to provide a changed schedule based upon the civil/structural re-planning activities and revised RAI response schedule presented to the NRC during the June 9, 2010, Public Meeting, and to allow time to interact with the NRC on the responses. AREVA NP submitted Supplement 4 on July 13, 2010 to provide a revised schedule for question 03.08.05-30. The attached file, "RAI 376 Question 03.08.05-24 Response - INTERIM.pdf" provides a technically correct and complete INTERIM response to 1 of the remaining 13 questions, as committed.

The following table indicates the respective pages in the response document, "RAI 376 Question 03.08.05-24 Response - INTERIM.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 376 — 03.08.05-24	2	5

The schedule for technically correct and complete FINAL responses to the remaining 13 questions is unchanged and provided below:

Question #	Interim Response Date	Response Date
RAI 376-03.08.01-47	N/A	August 17, 2010
RAI 376-03.08.01-48	N/A	July 29, 2010
RAI 376-03.08.03-21	N/A	July 26, 2010
RAI 376-03.08.03-22	N/A	July 26, 2010
RAI 376-03.08.03-24	N/A	July 29, 2010
RAI 376-03.08.05-24	July 15, 2010 Actual	February 17, 2011
RAI 376-03.08.05-25	August 16, 2010	February 8, 2011
RAI 376-03.08.05-26	August 16, 2010	February 8, 2011
RAI 376-03.08.05-27	August 16, 2010	February 8, 2011
RAI 376-03.08.05-28	October 25, 2010	February 17, 2011
RAI 376-03.08.05-29	August 9, 2010	October 29, 2010
RAI 376-03.08.05-30	N/A	August 16, 2010
RAI 376-03.08.05-31	October 25, 2010	February 17, 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 (EXT)
Sent: Tuesday, July 13, 2010 6:08 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); CORNELL Veronica (EXT); VAN NOY Mark (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 376, FSAR Ch. 3, Supplement 4

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI 376 on April 26, 2010. RAI 376 Supplement 1 provided a technically correct and complete response to 1 of 14 questions. AREVA NP submitted Supplement 2 to the response on June 8, 2010, to provide a schedule for the remaining 13 questions, which were affected by the work underway to address NRC comments from the April 26, 2010, audit. AREVA NP submitted RAI No. 376 Supplement 3 on June 24, 2010, to reflect the revised RAI response schedule as a result of the civil/structural re-planning activities.

RAI 376 Supplement 4 revises the schedule for the response to Question 03.08.05-30 to allow time to interact with the NRC on the draft response. The schedule for the remaining 12 questions is unchanged.

The schedule for technical	y correct and	complete responses	to the remaining 13	3 questions	is provided below.
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Question #	Interim Response Date	Response Date
RAI 376-03.08.01-47	N/A	August 17, 2010
RAI 376-03.08.01-48	N/A	July 29, 2010
RAI 376-03.08.03-21	N/A	July 26, 2010
RAI 376-03.08.03-22	N/A	July 26, 2010
RAI 376-03.08.03-24	N/A	July 29, 2010
RAI 376-03.08.05-24	July 15, 2010	February 17, 2011
RAI 376-03.08.05-25	August 16, 2010	February 8, 2011
RAI 376-03.08.05-26	August 16, 2010	February 8, 2011
RAI 376-03.08.05-27	August 16, 2010	February 8, 2011
RAI 376-03.08.05-28	October 25, 2010	February 17, 2011
RAI 376-03.08.05-29	August 9, 2010	October 29, 2010
RAI 376-03.08.05-30	N/A	August 16, 2010
RAI 376-03.08.05-31	October 25, 2010	February 17, 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 (EXT)
Sent: Thursday, June 24, 2010 11:56 AM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); RYAN Tom (AREVA NP INC); VAN NOY Mark (EXT); CORNELL Veronica (EXT); GARDNER George Darrell (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 376, FSAR Ch. 3, Supplement 3

#### Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI 376 on April 26, 2010. RAI 376 Supplement 1 provided a technically correct and complete response to 1 of 14 questions. AREVA NP submitted Supplement 2 to the response on June 8, 2010, to provide a schedule for the remaining 13 questions, which were affected by the work underway to address NRC comments from the April 26, 2010, audit.

Based upon the civil/structural re-planning activities and revised RAI response schedule presented to the NRC during the June 9, 2010, Public Meeting, and to allow time to interact with the NRC on the responses, the schedule has been changed. The schedule for 03.08.05-30 remains unchanged.

Prior to submittal of the final RAI response, AREVA NP will provide an interim RAI response that includes:

- (1) a description of the technical work (e.g., methodology)
- (2) U.S. EPR FSAR revised pages, as applicable

The revised schedule for an interim response and the technically correct and complete response to these questions is provided below.

Question #	Interim Response Date	Response Date
RAI 376-03.08.01-47	N/A	August 17, 2010
RAI 376-03.08.01-48	N/A	July 29, 2010
RAI 376-03.08.03-21	N/A	July 26, 2010
RAI 376-03.08.03-22	N/A	July 26, 2010
RAI 376-03.08.03-24	N/A	July 29, 2010
RAI 376-03.08.05-24	July 15, 2010	February 17, 2011
RAI 376-03.08.05-25	August 16, 2010	February 8, 2011
RAI 376-03.08.05-26	August 16, 2010	February 8, 2011
RAI 376-03.08.05-27	August 16, 2010	February 8, 2011
RAI 376-03.08.05-28	October 25, 2010	February 17, 2011
RAI 376-03.08.05-29	August 9, 2010	October 29, 2010
RAI 376-03.08.05-30	N/A	July 14, 2010
RAI 376-03.08.05-31	October 25, 2010	February 17, 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 (EXT)
Sent: Tuesday, June 08, 2010 3:32 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); VAN NOY Mark (EXT); CORNELL Veronica (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 376, FSAR Ch. 3, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI 376 on April 26, 2010. RAI 376 Supplement 1 provided a technically correct and complete response to 1 of 14 questions.

The schedule for the response to Question 03.08.05-30 has been changed. The final schedule for this question as well as the remaining questions below will be evaluated based on the information that will be presented at the June 9, 2010, public meeting and subsequent NRC feedback.

Question #	Response Date
RAI 376-03.08.01-47	July 14, 2010
RAI 376-03.08.01-48	August 3, 2010
RAI 376-03.08.03-21	June 24, 2010
RAI 376-03.08.03-22	June 24, 2010
RAI 376-03.08.03-24	August 3, 2010
RAI 376-03.08.05-24	August 3, 2010
RAI 376-03.08.05-25	August 3, 2010
RAI 376-03.08.05-26	August 3, 2010
RAI 376-03.08.05-27	July 14, 2010
RAI 376-03.08.05-28	August 3, 2010
RAI 376-03.08.05-29	August 3, 2010
RAI 376-03.08.05-30	July 14, 2010
RAI 376-03.08.05-31	August 3, 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, May 20, 2010 4:24 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); VAN NOY Mark (EXT); CORNELL Veronica (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 376, FSAR Ch. 3, Supplement 1

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to RAI No. 376 on April 26, 2010. The attached file, "RAI 376 Supplement 1 Response US EPR DC.pdf," provides technically correct and complete responses to 1 of the remaining 14 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 376 Question 03.08.03-23.

The response to one question, 03.08.05-30, cannot be provided at this time due to its dependence on path-toclosure related work-planning currently being rescheduled and reviewed by the NRC.

The following table indicates the respective pages in the response document, "RAI 376 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 376-03.08.03-23	2	2

A complete answer is not provided for 13 of the 14 questions. The schedule for a technically correct and complete response to these questions has been changed and is provided below.

Question #	Response Date
RAI 376-03.08.01-47	July 14, 2010
RAI 376-03.08.01-48	August 3, 2010
RAI 376-03.08.03-21	June 24, 2010
RAI 376-03.08.03-22	June 24, 2010
RAI 376-03.08.03-24	August 3, 2010
RAI 376-03.08.05-24	August 3, 2010
RAI 376-03.08.05-25	August 3, 2010
RAI 376-03.08.05-26	August 3, 2010
RAI 376-03.08.05-27	July 14, 2010
RAI 376-03.08.05-28	August 3, 2010
RAI 376-03.08.05-29	August 3, 2010
RAI 376-03.08.05-30	June 10, 2010
RAI 376-03.08.05-31	August 3, 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: Monday, April 26, 2010 12:49 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); RYAN Tom (AREVA NP INC); VAN NOY Mark (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 376 (4355,4367,4377), FSAR Ch. 3

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 376 Response US EPR DC.pdf" provides a schedule since a technically correct and complete response to the 14 questions is not provided.

The following table indicates the respective pages in the response document, "RAI 376 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 376-03.08.01-47	2	2
RAI 376-03.08.01-48	3	4
RAI 376-03.08.03-21	5	6
RAI 376-03.08.03-22	7	7
RAI 376-03.08.03-23	8	8
RAI 376-03.08.03-24	9	10
RAI 376-03.08.05-24	11	12
RAI 376-03.08.05-25	13	13
RAI 376-03.08.05-26	14	14
RAI 376-03.08.05-27	15	16
RAI 376-03.08.05-28	17	19
RAI 376-03.08.05-29	20	20
RAI 376-03.08.05-30	21	21
RAI 376-03.08.05-31	22	22

A complete answer is not provided for 14 of the 14 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 376-03.08.01-47	July 14, 2010
RAI 376-03.08.01-48	August 3, 2010
RAI 376-03.08.03-21	June 24, 2010
RAI 376-03.08.03-22	June 24, 2010
RAI 376-03.08.03-23	May 20, 2010
RAI 376-03.08.03-24	August 3, 2010
RAI 376-03.08.05-24	August 3, 2010
RAI 376-03.08.05-25	August 3, 2010
RAI 376-03.08.05-26	August 3, 2010
RAI 376-03.08.05-27	July 14, 2010
RAI 376-03.08.05-28	August 3, 2010
RAI 376-03.08.05-29	August 3, 2010
RAI 376-03.08.05-30	May 20, 2010
RAI 376-03.08.05-31	August 3, 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: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Thursday, March 25, 2010 2:13 PM
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. 376 (4355,4367,4377), FSAR Ch. 3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on March 11, 2010, and on March 24, 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\_RAIsEmail Number:1708

#### Mail Envelope Properties (BC417D9255991046A37DD56CF597DB7106E25D11)

Subject:Response toU.S. EPR Design Certification Application RAI No. 376, FSAR Ch.3, Supplement 5 - InterimSent Date:7/15/2010 7:12:59 PMReceived Date:7/15/2010 7:13:01 PMFrom:BRYAN Martin (EXTERNAL AREVA)

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

Recipients: "DELANO Karen (AREVA)" <Karen.Delano@areva.com> Tracking Status: None "ROMINE Judy (AREVA)" <Judy.Romine@areva.com> Tracking Status: None "BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com> Tracking Status: None "VAN NOY Mark (EXTERNAL AREVA)" <Mark.Vannoy.ext@areva.com> Tracking Status: None "CORNELL Veronica (EXTERNAL AREVA)" <Veronica.Cornell.ext@areva.com> Tracking Status: None "Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov> Tracking Status: None

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

**Response to** 

**Request for Additional Information No. 376** 

3/25/2010

U.S. EPR Standard Design Certification AREVA NP Inc. Docket No. 52-020 SRP Section: 03.08.01 - Concrete Containment SRP Section: 03.08.03 - Concrete and Steel Internal Structures of Steel or Concrete Containments SRP Section: 03.08.05 - Foundations Application Section: 3.8

QUESTIONS for Structural Engineering Branch 2 (ESBWR/ABWR Projects) (SEB2)

Response to Request for Additional Information No. 376 U.S. EPR Design Certification Application

# Question 03.08.05-24:

#### Follow-up to RAI 155, Question 03.08.05-4

The response to this RAI provided additional information about general procedures applicable to Seismic Category I (SC I) foundations. However, the staff finds that portions of this RAI response may be superseded in light of the response to RAI 3.8.5-8, which states that: (a) a new SSI analysis of the NI Common Basemat Structure has been performed using fully embedded conditions to address sliding and overturning issues; and (b) the new analysis models the tendon gallery as a shear key. Consequently, revise the RAI response and the relevant sections of the FSAR so that they are compatible with the aforementioned new analysis assumptions. The revised response should address the questions raised in the original RAI for all SC I structures, not just the NI Common Basemat Structure. In addition, provide further clarification on several issues as discussed below.

1. The response to Item 1 of this RAI provides the formulas utilized in the calculation of factors of safety for sliding, overturning, and flotation. These formulas are based on standard free body formulations of moments and forces. However, the staff notes that vertical wind forces ("Fz\_wind") are added to the resisting forces/moments in the sliding and overturning calculations; in addition, forces due to soil pressure (e.g., Fy, Fz, and Mx) are also utilized. In order to determine whether the stability evaluations are performed in accordance with the criteria in SRP 3.8.5.II, provide a description along with a diagram that explains the use of these forces in the methodology to calculate the minimum factors of safety.

2. The response to Item 2 of this RAI indicates that minimum factors of safety for overturning and sliding for the load combination including E' will be provided in response to RAI 3.8.5-8. However, the response to RAI 3.8.5-8 only provides the minimum factors of safety for the NI Common Basemat Structure. The response to this Item should be revised to address all SC I structures.

3. Revise the response to Item 3 of this RAI in light of the response to RAI 3.8.5-8. In addition, provide the technical basis for assuming that the value  $\mu = 0.7$  is applicable as a dynamic coefficient of friction as well as the minimum static coefficient of friction, for all soil types considered. The staff notes that dynamic coefficients of friction have values that are typically lower than static coefficients of friction. If these values are overestimated, then the corresponding factors of safety against sliding could also be overestimated and it would not be possible to determine if the foundation design meets the acceptance criteria in SRP 3.8.5.II.

4. Revise the response to Item 4 of this RAI in light of the response to RAI 3.8.5-8. In addition, since the current response to Item 4 states that the submerged unit weight of the soil was used for all structural analyses, provide the technical bases for assuming that this is always the worst condition or describe what other conditions were considered. This information is needed to determine if the foundation design meets the acceptance criteria in SRP 3.8.5.II.

5. The response to Item 5 of this RAI is not complete. As requested in the original RAI, compare the seismic soil pressure used in the design of foundation walls to the maximum calculated (lateral) soil pressure load distribution from the sliding and overturning seismic analysis. This information is needed because the assessment of lateral soil pressures is explicitly identified in SRP 3.8.5.II.4 as an area of staff review.

Response to Request for Additional Information No. 376 U.S. EPR Design Certification Application

6. The response to Item 7 of this RAI indicates that negligible impact was noted when the NI Common Basemat was subjected to a differential displacement of 1 inch in 50 feet. However, as stated in the staff's evaluation of RAI 3.8.5-11, it appears that a rigid body-type evaluation was performed to assess differential settlement effects. If this approach was used, the staff finds this unacceptable. For a typical shear wall structure, a differential settlement of 1 inch in 50 feet can result in significant demands on the structure when the differential settlement is defined as an imposed vertical shear deformation and not as a rigid body rotation. The demands on the structure will be a function of the stiffness of the foundation soils supporting the basemat. If such demands are ignored in the design of the basemat, then overstressed conditions and cracking of the basemat could result. Therefore, clarify the approach used to determine differential settlement effects. If differential settlement effects are not negligible, then address the issues raised by Item 7 of the original RAI in regard to load cases and load combinations. In addition, the RAI response indicates that differential settlement effects were evaluated for the softest soil type (soil case 1u). However, the staff notes that the use of the softest soil profile does not necessarily lead to the largest demands on the structure at all locations. Therefore, provide the results of analyses performed to show that bounding estimates were determined, and that induced demands are small for any acceptable soil type. Finally, no mention is made of how differential settlement effects were evaluated for SC I structures outside of the NI Common Basemat. Confirm that differential settlement effects were analyzed for these other SC I structures and provide a discussion of the analysis findings.

# Response to Question 03.08.05-24:

U.S. EPR FSAR changes indicated in this INTERIM response will not be provided in conjunction with this response, but will be provided in the FINAL response to various RAI questions, including this one, scheduled for submittal according to a schedule previously docketed.

# Item 1:

For load combinations including W, Wt, and Fb, the sliding, overturning, and flotation factors of safety will be calculated using results from the static model according to the following formulas in accordance with SRP 3.8.5.II:

FS Sliding = 
$$\frac{F_s + F_p}{F_H}$$

where:

- FS = shearing or sliding resistance at bottom of basemat
- FP = maximum soil passive pressure resistance, neglecting surcharge effect
- FH = maximum lateral force due to active soil pressure, including surcharge, and tornado or design wind load

FS Overturning = 
$$\frac{M_R}{M_O}$$

where:

MR = resisting moment

MO = overturning moment of tornado or design wind

FS Flotation = 
$$\frac{D}{(F \text{ or } B)}$$

where:

D = total weight of structures and foundation

F = buoyant force due to the design basis flood

B = buoyant force due to high ground water table

Factors of safety will be calculated for each direction, and the minimum factor of safety will be reported in U.S. EPR FSAR Tier 2, Table 3.8-12. After analyses are completed, U.S. EPR FSAR Tier 2, Table 3.8-12 and Section 3.8.5 will be revised to show resulting factors of safety.

# Item 2:

A U.S. EPR FSAR table will be provided with the FINAL response to this question showing the factor of safety for Seismic Category I structures.

# Item 3:

Stability of Seismic Category I structures will be based on SASSI analyses described in the Response to RAI 320, Question 3.7.2-63 and RAI 376, Question 03.08.05-31. A U.S. EPR FSAR table will be created to list bearing pressures and factors of safety.

The required factor of safety for sliding and overturning will be demonstrated in accordance with SRP 3.8.5.II, and justification for the specified max coefficient of friction will be provided. The U.S. EPR FSAR will also be revised to include key requirements for all Seismic Category I structures necessary to satisfy the maximum coefficient of friction.

#### Item 4:

Analyses described in the Response to RAI 320 considered the external environmental parameters listed in SRP 3.8.5. Because the U.S. EPR standardized design normal water table elevation is one meter below grade, the soil is assumed to be in a saturated condition. Various additional conditions are also investigated, such as moist soil with water table under the basemat. A dry soil condition is postulated for review. Hydrostatic and hydrodynamic effects of water during postulated flood conditions are also described.

#### Item 5:

Dynamic soil bearing pressures used for Seismic Category I structural design will be based on sliding and overturning analyses described in the Response to RAI 320, Question 3.7.2-63 and RAI 376, Question 03.08.05-31. These seismic soil pressures will be used to design the embedded walls and basemat.

#### Item 6:

An INTERIM response for this question sub-part is not available. A technically accurate and complete response to this question sub-part will be provided in the FINAL response.

# **FSAR Impact:**

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