

ArevaEPRDCPEm Resource

From: RYAN Tom (AREVA) [Tom.Ryan@areva.com]
Sent: Monday, May 14, 2012 11:24 AM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); WILLIFORD Dennis (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 544 (6411), FSAR Ch. 4 - NEW PHASE 4 RAI
Attachments: RAI 544 Response US EPR DC.pdf

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 544 Response US EPR DC.pdf," provides a schedule since a technically correct and complete response to the two questions cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 544 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 544 — 04.04-67	2	2
RAI 544 — 04.04-68	3	3

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

Question #	Response Date
RAI 544 — 04.04-67	June 14, 2013
RAI 544 — 04.04-68	June 14, 2013

Sincerely,

**Tom Ryan for
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

From: Tesfaye, Getachew [<mailto:Getachew.Tesfaye@nrc.gov>]
Sent: Thursday, April 12, 2012 6:10 PM
To: ZZ-DL-A-USEPR-DL
Cc: Hayes(NRO), Michelle; Lu, Shanlai; Schmidt, Jeffrey; Donoghue, Joseph; Gleaves, Bill; Segala, John; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 544 (6411), FSAR Ch. 4 - NEW PHASE 4 RAI

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on April 5, 2011, and on April 12, 2012, 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/LB1
(301) 415-3361

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 3915

Mail Envelope Properties (68A588D0DDE96547855C97AF83A8CAFD9985B6)

Subject: Response to U.S. EPR Design Certification Application RAI No. 544 (6411),
FSAR Ch. 4 - NEW PHASE 4 RAI
Sent Date: 5/14/2012 11:24:03 AM
Received Date: 5/14/2012 11:24:07 AM
From: RYAN Tom (AREVA)

Created By: Tom.Ryan@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
"WILLIFORD Dennis (AREVA)" <Dennis.Williford@areva.com>
Tracking Status: None
"Tsfaye, Getachew" <Getachew.Tsfaye@nrc.gov>
Tracking Status: None

Post Office: auscharm02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	2280	5/14/2012 11:24:07 AM
RAI 544 Response US EPR DC.pdf		66821

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

Response to

Request for Additional Information No. 544

4/12/2012

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 04.04 - Thermal and Hydraulic Design

Application Section: 4.4

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

Question 04.04-67:

OPEN ITEM

New Phase 4 RAI

Reference: March 15, 2012 letter from J. Sam Armijo, Chairman, Advisory Committee on Reactor Safeguards (ACRS), "Chapters 6,7,11,13,15,16, and 18 of the Safety Evaluation Report with Open Items associated with the U.S. Evolutionary Power Reactor Design Certification Application"

The response to RAI 16 on ANP-10287 "Incore Trip Setpoint and Transient Methodology for U.S. ERP," states that when a global 3-loop flow signal is received, the DNBR algorithm replaces the reference volumetric flow rate with a constant lower volumetric flow rate consistent with three pump operation. Does this lower flow rate capture the effects of reduced coolant flow, reverse flow, and penalties associated with non-uniform flow?

Response to Question 04.04-67:

A response to this question will be provided by June 14, 2013.

Question 04.04-68:

OPEN ITEM

New Phase 4 RAI

Reference: March 15, 2012 letter from J. Sam Armijo, Chairman, Advisory Committee on Reactor Safeguards (ACRS), "Chapters 6,7,11,13,15,16, and 18 of the Safety Evaluation Report with Open Items associated with the U.S. Evolutionary Power Reactor Design Certification Application"

The transient in Section 15.4.4 "Startup of an Inactive Reactor Coolant Pump at an Incorrect Temperature" does not capture all potential operating points described in technical specification (TS) 3.4.4. Provide an analysis demonstrating DNBR margin is maintained for the most limiting operation allowed by this technical specification, including operation just below the P3 permissive. This analysis should justify the statement in FSAR Section 7.2.1.3.2 that the P3 permissive setpoint value corresponds to the value below which loss of one reactor coolant pump does not lead to risk of DNB.

Response to Question 04.04-68:

A response to this question will be provided by June 14, 2013.