ArevaEPRDCPEm Resource

From: Snyder, Amy

Sent: Friday, November 23, 2012 3:56 PM

To: 'usepr@areva.com'

Cc: Kang, Peter; Anderson, James; Mitra, Sikhindra; Segala, John; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 564 (6901), FSAR Ch. 8

Attachments: FINAL RAI_EEB_6901.doc

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on October 17, 2012, and on October 29, 2012 you informed us that the RAI is clear and no further clarification is needed. As 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 RAI question 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.

Thank You,

Amy

Amy Snyder, U.S. EPR Design Certification Lead Project Manager Licensing Branch 1 (LB1) Division of New Reactor Licensing Office of New Reactors U.S. Nuclear Regulatory Commission

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Email Number: 4100

Mail Envelope Properties (AF843158D8D87443918BD3AA953ABF78B480F4D644)

Subject: U.S. EPR Design Certification Application RAI No. 564 (6901), FSAR Ch. 8

Sent Date: 11/23/2012 3:55:50 PM **Received Date:** 11/23/2012 3:55:52 PM

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Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files Size Date & Time

MESSAGE 1199 11/23/2012 3:55:52 PM

FINAL RAI_EEB_6901.doc 34810

Options

Priority:StandardReturn Notification:NoReply Requested:NoSensitivity:Normal

Expiration Date: Recipients Received:

Request for Additional Information 564

Issue Date: 11/23/12

Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020

Operating Company: AREVA NP Inc.
Docket No. 52-020

Review Section: 08.02 - Offsite Power System Application Section:

QUESTIONS

08.02-8

On July 27, 2012, the NRC issued Bulletin 2012-01, "Design Vulnerability in Electric Power System," (Agencywide Documents Access and Management System (ADAMS) Accession Number ML12074A115) to all holders of operating licenses and combined licenses for nuclear power reactors requesting information about the facilities' electric power system designs, in light of the recent operating experience that involved the loss of one of the three phases of the offsite power circuit (single-phase open circuit condition) at Byron Station, Unit 2 to verify compliance with applicable regulations and to determine if further regulatory action is warranted.

In order to verify the applicants of new reactors have addressed the design vulnerability identified at Byron in accordance with the requirements specified in General Design Criterion (GDC) 17, "Electric Power Systems," in Appendix A, "General Design Criteria for Nuclear Power Plants," and the design criteria for protection systems under 10 CFR 50.55a(h)(3), please provide the following information:

- Describe the protection scheme design for important to safety buses (31-34BDA) to detect and automatically respond to a single-phase open circuit condition or high impedance ground fault condition on credited offsite power circuits.
- If the important to safety buses are not powered by offsite power sources during at power condition, explain how the surveillance tests (e.g., SR 3.8.1.1) are performed to verify that a single-phase open circuit condition or high impedance ground fault condition on an off-site power circuit is detected.
- Describe the plant operating procedures including off-normal operating procedures, specifically calling for verification of the voltages on all three phases of the ESF buses.