

ArevaEPRDCPEm Resource

From: Wunder, George
Sent: Friday, January 17, 2014 10:00 AM
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Cc: Ader, Charles; Segala, John; Pohida, Marie; Eudy, Michael; ArevaEPRDCPEm Resource
Subject: US EPR DC DRAFT RAI 624
Attachments: Draft RAI 624 RAI_7280-PRA.docx

Attached please find Draft RAI No. 624 regarding your application for standard design certification of the U.S. EPR. If you have any questions or need clarification regarding this Draft RAI, please let us know as soon as possible; I will have our technical Staff available to discuss them with you.

Please also review the Draft RAI to ensure that we have not inadvertently included proprietary information. If there is any proprietary information, please let us know within the next ten days. If I do not hear from you within the next ten days, I will make the Draft RAI publicly available.

Sincerely,

George Wunder, Senior Project Manager
Office of New Reactors

Hearing Identifier: AREVA_EPR_DC_RAIs
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Draft Request for Additional Information 624

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

Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation

Application Section:

QUESTIONS

19-372

To support your responses to RAI 563 regarding the need to address Fukushima Recommendation 4.2 on Mitigating Strategies, on May 4, 2013, you provided Technical Report ANP-10329 "U.S. EPR Mitigation Strategies for Extended Loss of AC Power Event". The staff notes that in section 4.1.5.2 of ANP-10329, the Phase 1 ELAP mitigation strategy for Modes 1-5 is to provide natural circulation core cooling by using the SGs. Phase 1 inventory control is credited by using the RCS SSS to limit RCP seal leakage and by using the Accumulators. In Section 4.1.5.3, the Phase 1 ELAP mitigation strategy for Mode 6 with the vessel head removed credits the Accumulators, which are not required to be operable in Modes 5 and 6.

On page 4-44, the report acknowledges that during Mode 5 and Mode 6 when the vessel head is installed and the RCS is open, the SGs are not available for core heat removal. The report also acknowledges that there is insufficient venting to support primary feed and bleed cooling using gravity feed from the Accumulators. The report states that the duration of this condition is limited to two to three days in each fuel cycle. However, Order EA-12-049 "Order Modifying Licenses with regard to Requirements for Mitigating Strategies for Beyond-Design-Basis External Events," clearly states a requirement that licensees must be capable of implementing the strategies in all modes. Therefore, the staff requests that the applicant explain the mitigation strategy in all modes including Modes 5 and 6 with the vessel head installed and the RCS open.