

ArevaEPRDCPEm Resource





From: Snyder, Amy
Sent: Thursday, September 05, 2013 3:40 PM
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Cc: Dias, Antonio; Stubbs, Angelo; Hearn, Peter; Segala, John; Miernicki, Michael; Gleaves, Bill
Subject: US EPR DC DRAFT RAI 605, Chapter 10, Question 10.04.09 - Auxiliary Feedwater System (PWR)
Attachments: DRAFT RAI_605_BPFP_7234.docx

Attached please find Draft RAI No. 605 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 me 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 me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the Draft RAI publicly available.

Thank You,

Amy

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Request for Additional Information 605

Issue Date: 09/05/2013

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

Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 10.04.09 - Auxiliary Feedwater System (PWR)

Application Section: 10.4.9

QUESTION

RAI 10.04.09-14

The mitigating strategy proposed in DCD Rev. 5 for core cooling during a extended loss of all AC power (ELAP) event uses the fire protection system diesel-driven fire pumps to deliver fire-protection-system water to the SGs through the EFW system. The water pumped from the fire protection system enters the EFW system via an EFW discharge cross-connect header. When the system is operated, the potential for water hammer may exist due to pump starts and stops, control or isolation valve operation, check valve closure, etc. The occurrence of water hammer can result in damage to the emergency feedwater system. 10 CFR 50, Appendix A, GDC-4, "Environmental and Dynamic Effects Design Basis," requires safety-related portions of the EFW system be protected against hydraulic instabilities such as water hammer events. Provide a discussion of specific design features and system operation considerations used to minimize or preclude water hammer events due to operation of the fire protection system to supply water to the SGs. Include this information in the Design Control Document (DCD) and provide a markup in your response.