

CCNPP3eRAIPEm Resource

From: Arora, Surinder
Sent: Friday, February 14, 2014 11:21 AM
To: 'Infanger, Paul (paul.infanger@unistarnuclear.com)'; Finley, Mark T (mark.t.finley@unistarnuclear.com)
Cc: CCNPP3eRAIPEm Resource; Segala, John; Wilson, Anthony; Miernicki, Michael; McLellan, Judith; Terao, David; Honcharik, John
Subject: CCNPP3 - Final RAI 410 MCB 7395
Attachments: FINAL RAI 410 MCB 7395.docx

Paul,

Attached to this email message is the final RAI No. 410 (eRAI No. 7395) pertaining to section 3.5.1.3 of the Calvert Cliffs Unit 3 FSAR. The question in this RAI relates to the inconsistency between Revision 5 of Areva's Design Certification application and Revision 9 of the UniStar's COLA. The draft of this RAI was issued to you previously on January 27, 2014. Per request from UniStar, a clarification phone call was held on February 14, 2014, to discuss the draft question in the RAI. However, the clarification phone call did not result in changes to the draft RAI question and it was concluded that the RAI can be issued as "final" without any changes. Please note that the question number which was marked, "To be assigned" in the draft RAI has now been assigned and included in this version.

The schedule that we have established for review of your COL application assumes that your technically complete response to the RAI question or a schedule for providing a complete response must be received within 30 days of the final issuance of the RAI. Please note that if, in lieu of a complete response, you are providing a response schedule, the staff will re-evaluate the completion schedule for the applicable chapter based on the response date provided by you.

Additionally, please make sure to include in your response letter a statement certifying whether or not your response contains any sensitive or proprietary information that needs to be withheld from public disclosure.

Thanks.

SURINDER ARORA, PE
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Request for Additional Information 410 (eRAI 7395)

Issue Date: 02/14/2014
Application Title: Calvert Cliffs Unit 3 - Docket Number 52-016
Operating Company: UniStar
Docket No. 52-016
Review Section: 03.05.01.03 - Turbine Missiles
Application Section: 3.5.1.3

QUESTIONS

Question Number: 03.05.01.03-26

This RAI Question addresses an inconsistency between COLA Revision 9 and DCA Revision 5.

Section 3.5.1.3 of Revision 9 to the Calvert Cliffs COL FSAR addresses COL Item 3.5-2 identified in U.S. EPR FSAR, Tier 2, Table 1.8-2 by stating that the turbine missile analysis demonstrates that the probability of turbine rotor failure resulting in an ejection of the turbine rotor fragment through the turbine casing, P_1 , is less than 1×10^{-4} for a favorably orientated turbine. However, the COL Item in Revision 5 of the U.S. EPR FSAR, Section 3.5.1.3 was revised and now specifies that P_1 should be less than 1×10^{-5} for an unfavorable orientated turbine. Therefore, verify that the turbine missile analysis meets the criteria for P_1 less than 1×10^{-5} , and revise the FSAR and turbine analysis accordingly. The turbine missile analysis includes the following reports:

- Alstom, 2007. Alstom Report TSDMF 07-018 D, Unistar Project Turbine Missile Analysis, dated May 30, 2007.
- Alstom, 2010a. Alstom Report TNUD-EI 10-011, Unistar Project Turbine Missile Analysis, Fracture Mechanics Applied to the LP Rotor, dated June 30, 2010.
- Alstom, 2010b. Alstom Document 75RC10001, Unistar Project Steam Turbine Protection System Overspeed Reliability Evaluation, dated March 2, 2010.

In addition, please note that the final results of the reports should have units that are consistent with the criteria of P_1 less than 1×10^{-5} per year as specified in SRP Section 3.5.1.3, and not 1×10^{-5} per demand, month or day.