

CCNPP3eRAIPEm Resource

From: Arora, Surinder
Sent: Wednesday, October 17, 2012 7:49 AM
To: Infanger, Paul; UNECC3Project@unistarnuclear.com
Cc: CCNPP3eRAIPEm Resource; Segala, John; Wilson, Anthony; Terao, David; Honcharik, John; Miernicki, Michael; McLellan, Judith
Subject: CCNPP3 - Final RAI 376 CIB 6813
Attachments: FINAL RAI 376 CIB 6813.doc

Paul,

Attached is the "Final" version of RAI No. 376 (eRAI No. 6813) pertaining to section 3.5.1.3 of the Calvert Cliffs Unit 3 FSAR. The draft version of this RAI was issued to UniStar on October 2, 2012. A clarification phone call, requested by UniStar to discuss the draft RAI question, was held on October 16, 2012; however, based on this call, no changes were made to the draft questions in this RAI. This email forwards the subject RAI as "final" for your response.

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 schedule date for submitting your technically correct and complete response will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the review schedule.

Your response letter should also include a statement confirming that the response does or does not contain any sensitive or proprietary information.

Thanks

SURINDER ARORA, PE
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Hearing Identifier: CalvertCliffs_Unit3Col_RAI
Email Number: 270

Mail Envelope Properties (B46615B367D1144982B324704E3BCEEDCA46DD8EDE)

Subject: CCNPP3 - Final RAI 376 CIB 6813
Sent Date: 10/17/2012 7:49:01 AM
Received Date: 10/17/2012 7:49:02 AM
From: Arora, Surinder

Created By: Surinder.Arora@nrc.gov

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Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	1295	10/17/2012 7:49:02 AM
FINAL RAI 376 CIB 6813.doc	37370	

Options

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

Request for Additional Information 376 (eRAI 6813)

Issue Date: 10/17/2012

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

03.05.01.03-23

Section 3.0 of Alstom Document 75RC10001, dated March 2, 2010, states that the reliability data for the electronic overspeed protection system is based on the Alstom standard supplier, Jaquet, and it is assumed that this data would apply to a different supplier. However, there is no justification for why a different suppliers equipment would have similar reliability data. Therefore, provide justification on how the Jaquet reliability data would be the same for a different supplier. Also, discuss whether the COL FSAR should supplement the U.S. EPR FSAR, Tier 1, Table 2.8.1-3, ITAAC commitment number 2.5 to confirm that a different supplier's reliability data would be verified to demonstrate that the different suppliers equipment is still bounded by this analysis.

03.05.01.03-24

Section 4.0 of Alstom Document 75RC10001, dated March 2, 2010, states that the Arabelle nuclear steam turbine has 4 HP inlet lines and 4 IP inlet lines, with each steam inlet line fitted with two valves in series. It also states that the EPR admission valves are similar to the design of valves used on series P4 and N4 turbines. The operating experience with the admission valves for the P4 and N4 series is provided in Section 4.1 of Alstom Document 75RC10001. Explain how the Alstom Document 75RC10001 includes all of the relevant information such as valve types, valve control and overspeed protection systems, etc. that is included in the U.S. EPR FSAR standard steam turbine. This should include at a minimum:

- Discuss and compare why the valves used in the P4 and N4 turbine series are similar to the valves used for the U.S. EPR valves, so that it can be concluded that the components are similar so that the failure rates (past operating experience) for the P4 and N4 turbine series can be used for the analysis of the U.S. EPR design.
- Specify what the turbine series and model number the CCNPP 3 is, and how it compares to the Arabelle nuclear steam turbine.
- Also, include what common cause failure modes occurred for each of the valve types, and how they have been corrected.
- Discuss how these corrective actions were included as part of the admission valve designed for the U.S. EPR.
- Provide similar operating experience for the extraction non-return valves to be used in the U.S. EPR design, to minimize the potential for turbine overspeed.
- Also, discuss whether the reheat stop valves and intercept valves should be included in this analysis for the probability of destructive overspeed.

03.05.01.03-25

The information provided in COL FSAR information item 3.5-2 only specifies Alstom Report No. TSDMF 07-018D, dated May 30, 2007, as the turbine missile probability analysis. However, Alstom Report No. TSDMF 07-018D, dated May 30, 2007, was supplemented by Alstom

Report TNUD-EI 10-011, dated June 30, 2010, for evaluating the probability of fatigue, and Alstom Document 75RC10001, dated March 2, 2010, for evaluating the probability of destructive overspeed. Therefore, the staff requests that the applicant reference all of these reports in the COL FSAR to satisfy COL information item 3.5-2.