

## CCNPP3eRAIPEm Resource

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**From:** Arora, Surinder  
**Sent:** Thursday, February 09, 2012 11:21 AM  
**To:** Infanger, Paul; UNECC3Project@unistarnuclear.com  
**Cc:** CCNPP3eRAIPEm Resource; Segala, John; Wilson, Anthony; Vrahoretis, Susan; Kavanagh, Kerri; Keim, Andrea; Jaffe, David; Wheeler, Larry; McKenna, Eileen  
**Subject:** Final RAI 337 CQVP 6235  
**Attachments:** FINAL RAI 337 CQVP 6235.doc

Paul,

Attached please find the subject request for additional information (RAI) on FSAR Section 14.2. The draft of this RAI was sent to you on January 30, 2012. As stated in your email dated February 9, 2012, no clarification phone call on this Draft RAI was needed by UniStar. However, a typo in the RAI number in the title of the RAI has been corrected in the attached version.

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 of the applicable FSAR Chapter.

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**  
**PROJECT MANAGER,**  
**Office of New Reactors**  
**US Nuclear Regulatory Commission**

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**From:** Arora, Surinder

**Created By:** Surinder.Arora@nrc.gov

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**Options**

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**Recipients Received:**

Request for Additional Information No. 337 (eRAI 6235)

2/09/2012

Calvert Cliffs Unit 3

UniStar

Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants  
Application Section: 14.2.14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-58

**This is a follow-up to RAI 173 (eRAI2972), Question 14.02-51.**

The following items are not specifically stated as being tested and should be included in the test abstract:

- Testing of screen water system and pumps, travelling screens, and strainers.
- Verification of minimum Technical Specification flow rates for the system.
- Testing of water hammer design features, such as time delays on valves.
- Testing of normal or accident ESW (Essential Service Water) basin makeup controls.

Based on the applicant's response to the above question, the NRC staff has identified additional areas that need to be addressed in FSAR Section 14.2.14.2.

- Net positive suction head available should be verified against net positive suction head required ( $NPSHa > NPSHr$ ) for the UHS safety-related makeup water pumps.
- Testing of NS-AQ components such as the travelling screens, and screen wash pumps and related motor operated valves verifying proper operations, utilizing normal and 1E power.
- Manual fill and automatic fill sequence of the UHS makeup water system. Verify there is no evidence of water hammer during the filling process.
- It is unclear if the travelling screens and screen wash pumps are operated from the main control room or local panel in the UHS makeup water intake structure. This should be clarified and added to FSAR Section 14.2.14.2.
- Verify that the mini-flow valve opens on failure to open of the UHS makeup water pump discharge valve.
- Verification of the heat tracing (and alarms) associated at the UHS makeup water intake structure operates correctly.
- Strainer 'debris removal' line should be change to 'blowdown' line (see RAI 279, Question 09.02.05-17, item 9).

The applicant needs to address the comment below for Section 14.2.14.3, "Essential Service Water Blowdown System":

- 'Alternate' blowdown should be changed to 'emergency' blowdown to be consistent with RAI 279, Question 09.02.05-7, item 9).

The applicant needs to address the comment below for Section 14.2.14.4, "Essential Service Water Chemical Treatment System":

- RAI 279, Question 09.02.05-7, item 20 removed the chemical treatment subsystem for the UHS makeup water system since the system is normally in dry layup. The chemical addition for UHS Makeup Water system is done only during full flow testing, utilizing portable chemical skids and totes. Section 14.2.14.4 should reflect this change.