

## CCNPP3eRAIPEm Resource

---

**From:** Arora, Surinder  
**Sent:** Tuesday, May 22, 2012 1:18 PM  
**To:** Infanger, Paul; UNECC3Project@unistarnuclear.com  
**Cc:** CCNPP3eRAIPEm Resource; Segala, John; Curran, Gordon; McKenna, Eileen; Wilson, Anthony; Vrahoretis, Susan; Hearn, Peter; McLellan, Judith  
**Subject:** CCNPP3 - Final RAI 351 SPFP 6498  
**Attachments:** FINAL RAI 351 BPFP 6498.doc

Paul,

Attached please find the subject request for additional information (RAI) pertaining to Section 9.1.4 of the CCNPP3 FSAR. The draft of this RAI was sent to you on May 11, 2012. As stated in your email dated May 21, 2012, UniStar did not require a clarification phone call to discuss the draft question of this RAI. Accordingly, 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**  
**PROJECT MANAGER,**  
**Office of New Reactors**  
**US Nuclear Regulatory Commission**

Phone: 301 415-1421  
FAX: 301 415-6406  
Email: [Surinder.Arora@nrc.gov](mailto:Surinder.Arora@nrc.gov)

**Hearing Identifier:** CalvertCliffs\_Unit3Col\_RAI  
**Email Number:** 207

**Mail Envelope Properties** (B46615B367D1144982B324704E3BCEEDB085C5B960)

**Subject:** CCNPP3 - Final RAI 351 SPFP 6498  
**Sent Date:** 5/22/2012 1:17:34 PM  
**Received Date:** 5/22/2012 1:18:10 PM  
**From:** Arora, Surinder

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

**Recipients:**

"CCNPP3eRAIEm Resource" <CCNPP3eRAIEm.Resource@nrc.gov>  
Tracking Status: None  
"Segala, John" <John.Segala@nrc.gov>  
Tracking Status: None  
"Curran, Gordon" <Gordon.Curran@nrc.gov>  
Tracking Status: None  
"McKenna, Eileen" <Eileen.McKenna@nrc.gov>  
Tracking Status: None  
"Wilson, Anthony" <Anthony.Wilson@nrc.gov>  
Tracking Status: None  
"Vrahoretis, Susan" <Susan.Vrahoretis@nrc.gov>  
Tracking Status: None  
"Hearn, Peter" <Peter.Hearn@nrc.gov>  
Tracking Status: None  
"McLellan, Judith" <Judith.McLellan@nrc.gov>  
Tracking Status: None  
"Infanger, Paul" <paul.infanger@unistarnuclear.com>  
Tracking Status: None  
"UNECC3Project@unistarnuclear.com" <UNECC3Project@unistarnuclear.com>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	1209	5/22/2012 1:18:10 PM
FINAL RAI 351 BPFP 6498.doc		32762

**Options**

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

Request for Additional Information No. 351 (eRAI 6498)

5/22/2012

Calvert Cliffs Unit 3

UniStar

Docket No. 52-016

SRP Section: 09.01.04 - Light Load Handling System (Related to Refueling)

Application Section: 9.1.4

QUESTIONS for Balance of Plant & Fire Protection Branch (BPFP)

09.01.04-1

In accordance with 10CFR52.79(a)(28), the COL applicant is to provide preoperational testing and initial operations. RG 1.68 provides guidance that appropriate tests should be conducted to demonstrate that equipment and components used to handle or cool irradiated and non-irradiated fuel will operate in accordance with design.

Table 1.8-2 "U.S. EPR Combined License Information Items" of the DCD contains COL 9.1-2 requesting the COL applicant to provide a cask design acceptable for interfacing with the SFCTF prior to initial cask loading operations. The COL item specifies the design of the spent fuel cask must meet the following interface requirements:

- The mating surface of the cask maintains a leak-tight connection with the penetration assembly when the cask is connected to the penetration.
- The dose rates from a loaded cask during cask handling operations does not exceed those identified in Section 12.3.
- A structural and seismic analysis of the SFCTM and cask demonstrates that the fluid boundary between the penetration assembly and connected cask is maintained to preclude the loss of significant inventory in the spent fuel pool during cask loading operations, including safe shutdown earthquake (SSE), and the postulated drop of a fuel assembly from the maximum handling height in the cask loading pit onto a connected cask.

To address COL Item 9.1-2, Section 9.1.4 of the COL includes a commitment to provide, prior to initial cask loading operations, a cask design that satisfies the requirements in U. S. EPR FSAR Section 9.1.4 for interfacing with the spent fuel cask transfer facility (SFCTF). In the absence of the cask design, the staff is unable to locate any test program or other means to verify the proper operation of the SFCTF.

In order to assure the capability to remove fuel from the spent fuel pool, the applicant needs to demonstrate that an identified NRC-approved cask can be safely connected to SFCTF prior to fuel load. Additionally, the staff is unable to locate any test program to address COL 9.1-2 to verify that the design of the spent fuel cask meet the interface requirements. Therefore, the applicant is requested to provide a test program or other method to verify proper operation of the SFCTF prior to fuel load and prior to initial SFCTF use.