

## CCNPP3COLA PEmails

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**From:** John Rycyna  
**Sent:** Friday, August 08, 2008 1:14 PM  
**To:** Wrobel, George  
**Cc:** CCNPP3COL Resource; Jim Xu; Sujit Samaddar; Tarun Roy; Joseph Colaccino; Getachew Tesfaye  
**Subject:** Draft RAI No 8 SEB2 694.doc  
**Attachments:** Draft RAI No 8 SEB2 694.doc

George,

Attached is DRAFT RAI No. 8. You have ten working days to review it and to decide whether you need a conference call to discuss it. After the call or after ten days the RAI will be finalized and sent to you. You then have 30 days to respond.

John Rycyna, PE  
Project Manager  
Division of New Reactor Licensing  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
301-415-4122

**Hearing Identifier:** CalvertCliffs\_Unit3Cola\_Public\_EX  
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**Subject:** Draft RAI No 8 SEB2 694.doc  
**Sent Date:** 8/8/2008 1:14:01 PM  
**Received Date:** 8/8/2008 1:14:03 PM  
**From:** John Rycyna

**Created By:** John.Rycyna@nrc.gov

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**Post Office:** HQCLSTR02.nrc.gov

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MESSAGE	423	8/8/2008 1:14:03 PM
Draft RAI No 8 SEB2 694.doc	26734	

**Options**

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**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
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**Recipients Received:**

Request for Additional Information No. 8  
DRAFT  
8/8/2008

Calvert Cliffs Unit 3  
UniStar  
Docket No. 52-016  
SRP Section: 03.04.02 - Analysis Procedures  
Application Section: 3.4.2, 3.5.1.4

QUESTIONS

03.04.02-1

Section 3.4.2 of CCNPP Unit 3 COL FSAR describes the external flood protection, which incorporated the U.S. EPR FSAR by reference with several departures. Please respond to the following which describe: 1) the extent to which these departures were addressed in the respective sections, and 2) additional necessary information.

- 1) Essential Service Water Cooling Tower 1 and Emergency Power Generating Buildings were identified as having ground water tables exceeding the U.S. EPR design limit (specified as at least 3.3 ft (1 m) below grade). The applicant stated that a calculation demonstrated that these structures can still perform the safety functions with the ground water at elevations higher than that specified in the standard design. No details were provided of the calculation. The staff requests that the applicant provide a summary of the related calculations which demonstrate that the exceedance of the ground water table will not cause internal flooding of these structures and the resulting additional buoyancy load will not induce any basemat uplifting, considering different load combinations (e.g., seismic).
- 2) Ultimate Heat Sink (UHS) Makeup Water Intake Structure and the UHS Electrical Building were identified as exceeding the U.S. EPR design limit for the Probable Maximum Flood (PMF) elevation. The applicant only stated in the FSAR that these structures will be designed to meet the requirements of RG 1.27 and will be watertight to prevent internal flooding of the buildings; however, the applicant did not provide the PMF elevations for these structures nor were design details provided for preventing the PMF induced internal flooding of these structures. The staff requests that the applicant provide the above information for addressing PMF induced flooding of these two structures.

03.04.02-2

Section 3.5.1.4 of CCNPP Unit 3 COL FSAR identified Category I structures: Safeguard Buildings (SB) 1 and 4 not having barriers for protection against tornado generated automobile missile impact loads; however, the FSAR stated that all wall and roof slab sections of these structures meet the minimum acceptable tornado missile barrier guidance of SRP 3.5.3. SRP 3.5.3 (II) SRP Acceptance Criteria 1 provides the methods for prediction of local damage due tornado generated missiles, including a list of empirical equations for determining the required barrier thicknesses. SRP 3.5.3 also provides minimum acceptable barrier thickness requirements as listed in TABLE 1. The

thickness of concrete structures against tornado generated missiles should be determined based on empirical equations, and the calculated thickness should no be less than that specified in TABLE 1. The staff requests that the applicant provide an assessment of the structural capacity of these structures for protection against tornado generated missiles based on the empirical equations of SRP 3.5.3, and check the calculated structural thickness against TABLE 1 of SRP 3.5.3.