

## CCNPP3eRAIPEm Resource

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**From:** Takacs, Michael  
**Sent:** Wednesday, November 20, 2013 4:12 PM  
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**Cc:** CCNPP3eRAIPEm Resource; Segala, John; Wilson, Anthony; Clark, Phyllis; McLellan, Judith; Wang, Weijun; Jackson, Diane  
**Subject:** CCNPP3 - Draft RAI 404 RGS2 7257  
**Attachments:** DRAFT RAI 404 RGS2 7257.docx

Paul,

Attached is DRAFT RAI No. 404 (eRAI No. 7257) pertaining to section 2.5 of the Calvert Cliffs Unit 3 FSAR. The draft question in this RAI is related to the dynamic bearing capacity design requirement revised in the U.S. EPR FSAR Revision 5. You have until December 4, 2013 to review the draft question and request a clarification phone call to discuss the RAI before the final issuance. After the clarification phone call or after December 4, 2013, this draft RAI will be finalized and sent to you for your response. You will then have 30 days to provide a technically complete response or an expected response date for the RAI.

Thanks

*Mike Takacs  
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**Hearing Identifier:** CalvertCliffs\_Unit3Col\_RAI  
**Email Number:** 344

**Mail Envelope Properties** (0A64B42AAA8FD4418CE1EB5240A6FED101491E01DC3A)

**Subject:** CCNPP3 - Draft RAI 404 RGS2 7257  
**Sent Date:** 11/20/2013 4:11:37 PM  
**Received Date:** 11/20/2013 4:11:39 PM  
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<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	820	11/20/2013 4:11:39 PM
DRAFT RAI 404 RGS2 7257.docx	29859	

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## **Request for Additional Information 404 (eRAI 7257)**

DRAFT

Issue Date: 11/20/2013

Application Title: Calvert Cliffs Unit 3 - Docket Number 52-016

Operating Company: UniStar

Docket No. 52-016

Review Section: 02.05.04 - Stability of Subsurface Materials and Foundations

Application Section: 2.5.4

### QUESTIONS

RAI 2.5.4-33

In Tier 1, Table 5.0-1, "Site Parameters for the U.S. EPR Design" of U.S. EPR FSAR Revision 5, the site parameter for the maximum bearing pressure under static loading conditions for the foundation basemat beneath the Seismic Category 1 structures was revised from 24,000 lbs/ft<sup>2</sup> to 23,100 lbs/ft<sup>2</sup>; and, the maximum dynamic bearing pressure values were revised from 35,000 lbs/ft<sup>2</sup> to 38,000 lbs/ft<sup>2</sup> for soft soil, 48,000 lbs/ft<sup>2</sup> for medium soil, and 60,000 lbs/ft<sup>2</sup> for hard soil. As the maximum dynamic bearing pressure value increases, the associated minimum bearing capacity requirement increases accordingly. As presented in CCNPP Unit 3 COL FSAR Table 2.5-67— {Bearing Capacity}, the estimated allowable dynamic bearing capacity for the nuclear island (NI) Common Mat is 35,200 lbs/ft<sup>2</sup>, which is less than the U.S. EPR design requirement. In responses to Question 03.07.01-16 of RAI 314 and Questions 03.07.02-62, 03.07.02-63, 03.07.02-64 (Parts A and B), 03.07.02-65, and 03.07.02-66 of RAI 315, dated July 31, 2013, the applicant presented site-specific structural stability analysis results and proposed departure and exemption requests for the dynamic bearing capacity design requirements. The applicant also proposed CCNPP COL FSAR markup for sections 2.0, 2.5 and 3.7. However, there is no mention of the departure from the dynamic bearing capacity requirement in the proposed FSAR markup to 2.5.4 where site bearing capacity related site parameters are discussed. Please address the departure items in applicable sections of the CCNPP COL FSAR in accordance with 10 CFR 52.79.