

## CCNPP3COLA NPEmails

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**From:** Rycyna, John  
**Sent:** Monday, September 29, 2008 4:52 PM  
**To:** Wrobel, George  
**Cc:** CCNPP3COL Resource; Colaccino, Joseph; Miernicki, Michael; Tabatabai, Sarah; Karas, Rebecca  
**Subject:** Draft RAI No 19 RGS 1210.doc  
**Attachments:** Draft RAI No 19 RGS 1210.doc

George,

Attached is DRAFT RAI No. 19. 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

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**Sent Date:** 9/29/2008 4:51:36 PM  
**Received Date:** 9/29/2008 4:51:38 PM  
**From:** Rycyna, John

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

**Recipients:**

"CCNPP3COL Resource" <CCNPP3COL.Resource@nrc.gov>  
Tracking Status: None  
"Colaccino, Joseph" <Joseph.Colaccino@nrc.gov>  
Tracking Status: None  
"Miernicki, Michael" <Michael.Miernicki@nrc.gov>  
Tracking Status: None  
"Tabatabai, Sarah" <Sarah.Tabatabai@nrc.gov>  
Tracking Status: None  
"Karas, Rebecca" <Rebecca.Karas@nrc.gov>  
Tracking Status: None  
"Wrobel, George" <George.Wrobel@unistarnuclear.com>  
Tracking Status: None

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

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MESSAGE	424	9/29/2008 4:51:38 PM
Draft RAI No 19 RGS 1210.doc	26222	

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**Recipients Received:**

Request for Additional Information No. 19 Revision 2  
DRAFT  
9/29/2008

Calvert Cliffs Unit 3  
UniStar  
Docket No. 52-016  
SRP Section: 03.07.04 - Seismic Instrumentation  
Application Section: 3.7.4

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)

03.07.04-1

In order to determine whether plant shutdown is required after an earthquake, Regulatory Position 4.1.1 of Regulatory Guide 1.166 states that “[t]he OBE [operating basis earthquake ground motion] response spectrum check is performed using the lower of:

1. The spectrum used in the certified standard design, or
2. A spectrum other than (1) used in the design of any Seismic Category I structure.”

Section 3.7.4.4 of the U.S. EPR FSAR states that “the application of OBE Exceedance Criteria is based on the following:

- “i. For the certified design portion of the plant, the OBE ground motion is one-third of the certified seismic design response spectra (CSDRS).
- “ii. For the safety-related noncertified design portion of the plant, the OBE ground motion is one-third of the site-specific SSE design motion response spectra, as described in Section 3.7.1.
- “iii. The threshold response spectrum ordinate criterion to be used in conjunction with RG 1.166 is the lowest of (i) and (ii).”

Section 3.7.1.1.1 of the applicant’s FSAR states that “[t]he horizontal SSE [safe-shutdown earthquake] ground motion is defined as the envelope of the GMRS [Ground Motion Response Spectra] and the set of CSDRS [Certified Seismic Design Response Spectra] curves anchored at 0.1 g peak ground acceleration. The vertical SSE spectrum is defined as the vertical GMRS.” In addition, the applicant’s FSAR, in Section 3.7.1.1.1, describes the design response spectra of several site-specific Category I structures (including the Ultimate Heat Sink Makeup Water Intake Structure), which differ from the SSE. The NRC staff requests the applicant to specify the OBE which would be used to determine whether shutdown would be required following a seismic event.