CCNPP3COLA PEmails

From: Steckel, James
Sent: Thursday, June 23, 2011 2:49 PM
To: CCNPP3COLA PEmails
Subject: FW: RAI No 103 RHEB 2089.doc (PUBLIC)
Attachments: RAI No 103 RHEB 2089.doc

From: John Rycyna
Sent: Monday, April 20, 2009 4:53 PM
To: Poche, Robert; McQueeney, Jennifer; katie.thurstin@unistarnuclear.com
Cc: CCNPP3COL Resource; Michael Miernicki; Joseph Colaccino; James Biggins; Adam Gendelman; Henry Jones; Richard Raione
Subject: RAI No 103 RHEB 2089.doc (PUBLIC)

Rob,

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on April 6, 2009. No conference call was requested to discuss this RAI. 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 date for receipt of this information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

John Rycyna, PE
Sr. 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
Email Number: 2407

Mail Envelope Properties (0AA17736E4C4154CA37233EEBFC8DEB27400C0E1E7)

Subject: FW: RAI No 103 RHEB 2089.doc (PUBLIC)
Sent Date: 6/23/2011 2:49:24 PM
Received Date: 6/23/2011 2:49:24 PM
From: Steckel, James

Created By: James.Steckel@nrc.gov

Recipients:
"CCNPP3COLA PEmails" <CCNPP3COLA.PEmails@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	1081	6/23/2011 2:49:24 PM
RAI No 103 RHEB 2089.doc	26734	

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

Request for Additional Information No. 103
4/20/2009

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016
SRP Section: 02.04.05 - Probable Maximum Surge and Seiche Flooding
Application Section: FSAR Section 2.4

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.05-1

The USACE Engineer Manual 1110-2-1412 (USACE, 1986) has been superseded by USACE Engineer Manual 1110-2-1100 (USACE, 2006). The guidance in RG 1.59 is that the assessment of hazards from storm surges be based on the Probable Maximum Hurricane (PMH). Please explain why the storm parameters obtained from the USACE (1986) reference and reported in the FSAR are consistent with the PMH estimation procedure described by NOAA (1979), or justify an alternative approach.

02.04.05-2

The NRC Staff's guidance states that recommendations of Regulatory Guide 1.59 should be supplemented by standard engineering practice currently in use. Please explain how the storm surge water surface elevations obtained from Regulatory Guide 1.59 and adjusted for CCNPP site location using the model developed for the Chesapeake Bay (USACE, 1959) are conservative with respect to current engineering practice described in USACE Engineering Manual 1110-2-1100 (USACE, 2006) and those of the NOAA National Weather Service with regard to the SLOSH model (NOAA, 1992), or justify an alternative approach.

02.04.05-3

Please explain how the storm surge water level estimation procedure accounts for more recent hurricanes that have occurred in the last three decades since the publication of the Probable Maximum Hurricane estimation procedure (NOAA, 1979).

02.04.05-4

Please provide a set of alternate locations of the eye of the Probable Maximum Hurricane storm (FSAR Figure 2.4-26) to demonstrate that the chosen location would maximize the overwater fetch and therefore result in the most severe plausible storm surge near the CCNPP site.

02.04.05-5

UniStar stated in FSAR Section 2.4.5.4 that period of oscillation of wind-induced seiches in Chesapeake Bay is between 2 and 3 days. Please provide a reference and a

summary of the method used to estimate the period of oscillation of wind-induced seiches in Chesapeake Bay.