

CCNPP3COLA PEmails

From: John Rycyna
Sent: Monday, April 20, 2009 4:58 PM
To: Poche, Robert; McQueeney, Jennifer; katie.thurstin@unistarnuclear.com
Cc: CCNPP3COL Resource; Henry Jones; Richard Raione; Joseph Colaccino; James Biggins; Adam Gendelman
Subject: RAI No 104 RHEB 2093.doc (PUBLIC)
Attachments: RAI No 104 RHEB 2093.doc

Rob,

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on April 7, 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.

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Subject: RAI No 104 RHEB 2093.doc (PUBLIC)
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From: John Rycyna

Created By: John.Rycyna@nrc.gov

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Post Office:

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MESSAGE	766	4/20/2009 4:58:00 PM
RAI No 104 RHEB 2093.doc		27246

Options

Priority: Standard
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Reply Requested: No
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Request for Additional Information No. 104
4/20/2009

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters
Application Section: FSAR Section 2.4

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.13-1

Provide confirmation of, and the technical basis for, the use of the Reactor Coolant Storage Tank as the source tank with the greatest inventory for the purposes of the accidental release analysis.

02.04.13-2

Provide a reference for the radionuclide activities used as the source in the accidental release analysis (FSAR Table 2.4-44).

02.04.13-3

Provide information on the presence or absence of chelating agents in the tank used for the source in the accidental release analysis. Also discuss the planned use of any chemical agents anywhere at the site which could modify the radionuclide transport characteristics of the sub-surface region.

02.04.13-4

Provide a discussion of the technical basis for concluding that the postulated groundwater pathway is conservative, including discussion of the following:

- The assumption that a transport analysis that does not consider hydrodynamic dispersion is conservative for a constituent subject to decay;
- A conservative analysis of the limiting value for a radionuclide mixture considers the possible combination of radionuclides at the boundary of the unrestricted area due to variation in K_d values and does not simply assume minimum K_d values for all radionuclides in the mixture;
- Possible alternative pathways, e.g., to the underlying aquifer or to St. John's Creek and Branch 3;
- The impact of site construction (excavation and fill) on possible alternative transport pathways;

- Consistency with FSAR Sections 2.4.12 and 2.5.4.