## PMComanchePeakPEm Resource

**From:** Monarque, Stephen
**Sent:** Monday, October 05, 2009 8:13 AM
**To:** Donald.Woodlan@luminant.com; John.Conly@luminant.com; cp34-rai-luminant@mnes-us.com; Diane Yeager; Eric.Evans@luminant.com; joseph tapia; Kazuya Hayashi; Matthew.Weeks@luminant.com; MNES RAI mailbox; Russ Bywater
**Cc:** Magee, Michael; ComanchePeakCOL Resource
**Subject:** Comanche Peak RCOLA - Section 2.4.13 - RAI # 116
**Attachments:** RAI 3673 (RAI 116).doc

The NRC staff has identified that additional information is needed to continue its review of the combined license application. The NRC staff's request for additional information (RAI) is contained in the attachment. Luminant is requested to inform the NRC staff if a conference call is needed.

The response to this RAI is due within 35 calendar days of October 5, 2009

Note: If changes are needed to the safety analysis report, the NRC staff requests that the RAI response include the proposed changes.

thanks,

Stephen Monarque
U. S. Nuclear Regulatory Commission
NRO/DNRL/NMIP
301-415-1544

**Hearing Identifier:** ComanchePeak_COL_Public
**Email Number:** 673

**Mail Envelope Properties** (9C2386A0C0BC584684916F7A0482B6CA04A83CE642)

**Subject:** Comanche Peak RCOLA - Section 2.4.13 - RAI # 116
**Sent Date:** 10/5/2009 8:13:19 AM
**Received Date:** 10/5/2009 8:13:26 AM
**From:** Monarque, Stephen

**Created By:** Stephen.Monarque@nrc.gov

**Recipients:**
"Magee, Michael" <Michael.Magee@nrc.gov>
Tracking Status: None
"ComanchePeakCOL Resource" <ComanchePeakCOL.Resource@nrc.gov>
Tracking Status: None
"Donald.Woodlan@luminant.com" <Donald.Woodlan@luminant.com>
Tracking Status: None
"John.Conly@luminant.com" <John.Conly@luminant.com>
Tracking Status: None
"cp34-rai-luminant@mnes-us.com" <cp34-rai-luminant@mnes-us.com>
Tracking Status: None
"Diane Yeager" <diane_yeager@mnes-us.com>
Tracking Status: None
"Eric.Evans@luminant.com" <Eric.Evans@luminant.com>
Tracking Status: None
"joseph tapia" <joseph_tapia@mnes-us.com>
Tracking Status: None
"Kazuya Hayashi" <kazuya_hayashi@mnes-us.com>
Tracking Status: None
"Matthew.Weeks@luminant.com" <Matthew.Weeks@luminant.com>
Tracking Status: None
"MNES RAI mailbox" <cp34-rai@mnes-us.com>
Tracking Status: None
"Russ Bywater" <russell_bywater@mnes-us.com>
Tracking Status: None

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|---|---|---|
| MESSAGE | 645 | 10/5/2009 8:13:26 AM |
| RAI 3673 (RAI 116).doc | 33274 | |

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**Priority:** Standard
**Return Notification:** No
**Reply Requested:** No
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**Expiration Date:**
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Request for Additional Information (RAI) No. 3673

RAI # 116

10/5/2009

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters
Application Section: 2.4.13

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.13-1

NUREG-0800, Standard Review Plan (SRP), Chapter 2.4.13, 'Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters,' establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations.

Provide a description of the development of alternate conceptual models of the site and the process used in the selection of the most conservative and plausible pathway taking into consideration changes that will occur to site hydrology as a result of site alterations during construction.

02.04.13-2

NUREG-0800, Standard Review Plan (SRP), Chapter 2.4.13, 'Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters,' establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations.

In order to demonstrate compliance with the requirements of providing adequate protection to water users, discuss the potential for preferential flowpaths and vertical migration and provide conservative evaluations and discussion of the potential for flow to offsite wells (displayed on Figure 2.4.-205). Also provide data and discuss the applicability of using the calculations performed as part of the FSAR for Units 1 and 2 as the basis to eliminate conceptual models of vertical groundwater flow through the Glen Rose to offsite wells in the Twin Mountains Formation from Units 3 and 4.

02.04.13-3

NUREG-0800, Standard Review Plan (SRP), Chapter 2.4.13, 'Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters,' establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations.

In its letter dated December 18, 2008, Luminant provided a response to the NRC staff's request for additional information. In its response to Question 2.4.13-03, Luminant stated that chelating agents will not affect potential contaminant transport due to the small quantity and limited use planned for the proposed plants.

To further satisfy the requirements of 10 CFR 100.20(c)(3), Luminant is requested to provide an expanded discussion and relevant data concerning prior or potential future use of chemicals that have the potential to alter transport characteristics of liquid radioactive effluents at or near the site.

02.04.13-4

NUREG-0800, Standard Review Plan (SRP), Chapter 2.4.13, 'Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters,' establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations.

Provide a discussion of the assumptions and input parameters, including a table of the assumed undiluted concentration of radionuclides in the tanks at time zero, used with the RATAF code to perform the accidental liquid radioactive effluent release analysis for Units 3 and 4 and demonstrate the conservative nature of site-specific parameters in the model input. Please specifically discuss the conservatism of the dilution factor representing the volume of Squaw Creek Reservoir used in the RATAF analysis and the assumed travel time of 365 days.