

## PMComanchePeakPEm Resource

---

**From:** Monarque, Stephen  
**Sent:** Monday, July 12, 2010 1:38 PM  
**To:** John.Only@luminant.com; Donald.Woodlan@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:** ComanchePeakCOL Resource; Ng, Ronnie; Ward, William  
**Subject:** Comanche Peak RCOL Chapter 3, Section 3.7.2 - RAI Number 171  
**Attachments:** RAI 4760 (RAI 171).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 July 12, 2010.

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:** 979

**Mail Envelope Properties** (9C2386A0C0BC584684916F7A0482B6CA172D84D21B)

**Subject:** Comanche Peak RCOL Chapter 3, Section 3.7.2 - RAI Number 171  
**Sent Date:** 7/12/2010 1:38:07 PM  
**Received Date:** 7/12/2010 1:38:07 PM  
**From:** Monarque, Stephen

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

**Recipients:**

"ComanchePeakCOL Resource" <ComanchePeakCOL.Resource@nrc.gov>

Tracking Status: None

"Ng, Ronnie" <Ronnie.Ng@nrc.gov>

Tracking Status: None

"Ward, William" <William.Ward@nrc.gov>

Tracking Status: None

"John.Only@luminant.com" <John.Only@luminant.com>

Tracking Status: None

"Donald.Woodlan@luminant.com" <Donald.Woodlan@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

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

Files	Size	Date & Time
MESSAGE	643	7/12/2010 1:38:07 PM
RAI 4760 (RAI 171).doc		31738

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

Request for Additional Information (RAI) No. 4760, COLA Revision 1

RAI Number 171

7/12/2010

Comanche Peak Units 3 and 4  
Luminant Generation Company, LLC.  
Docket No. 52-034 and 52-035  
SRP Section: 03.07.02 - Seismic System Analysis  
Application Section: FSAR 3.7.2

QUESTIONS for Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)

03.07.02-17

This request for additional information (RAI) is necessary for the staff to determine if the application meets the requirements of 10 CFR Part 50, Appendix A, General Design Criteria 2; 10 CFR Part 50 Appendix S; and 10 CFR Part 100; as well as the guidance in NUREG-0800, 'Standard Review Plan for the Review of Safety Analysis for Nuclear Power Plants,' Chapter 3.7.2, 'Seismic Design Parameters.'

In the response to RAI 22 (2929) question 02.05.04-9, the applicant indicated that the soil-structure interaction (SSI) calculation is bounding and is based upon the calculations using one surface foundation (no-fill) case and four embedded foundation cases. For the embedded foundation cases, it is believed that SSI analyses are based on the half-space assumption of horizontal soil layers extending to infinity in all directions. However, the applicant did not specifically discuss the validation of the half-space assumption for the power block structures setting back from the top of the Squaw Creek reservoir slopes about 150 feet.

The applicant is requested to discuss the potential impact of the nearby slopes indicated in the site profiles on the computed SSI responses to ensure that the computed seismic responses will not be under-estimated at some frequencies of interest.

Specifically, the staff would like to know how the Squaw Creek Reservoir slope may affect the SSI analysis and the stability of Unit 3 ultimate heat sink (UHS) structures, which are located near the reservoir slope, as shown in FSAR Figure 2.1-201.

Also, explain how the retaining wall (as shown in figure 2.5.5-206 of the FSAR) was considered in the UHS SSI analysis. Determine whether failure of the wall would affect the lateral stability of the UHS safety-related structure.

References:

Luminant's Final Responses to Requests for Additional Information No. 2929; Log No. TXNB-09059; dated October 28, 2009; ML093080096.

Luminant's Final Responses to Requests for Additional Information No. 2929; Log No. TXNB-09042; dated September 10, 2009; ML092580684.