PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Monday, July 12, 2010 1:38 PM
To: John.Conly@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.Conly@luminant.com" <John.Conly@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.