PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Monday, December 06, 2010 10:01 AM
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; Kallan, Paul
Subject: Comanche Peak RCOL Chapter 3, Section 3.7 - RAI Number 192
Attachments: RAI 5255 (RAI 192).docx

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 December 6, 2010, 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: 1188

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From: Monarque, Stephen

Created By: Stephen.Monarque@nrc.gov

Recipients:
"ComanchePeakCOL Resource" <ComanchePeakCOL.Resource@nrc.gov>
Tracking Status: None
"Kallan, Paul" <Paul.Kallan@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

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Options
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Request for Additional Information No. 5255, COLA Revision 1

RAI Number 192

12/6/2010

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 Chapter 3.7.2, and Appendices 3MM and 3KK

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

03.07.02-19

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 System Analysis.'

On page 3KK-2 of Revision 1 of the Comanche Peak Nuclear Power Plant (CPNPP) COLA, Part 2, FSAR, it is stated that the use of operating-basis earthquake (OBE) damping is consistent with the low seismicity of the site. On page 3KK-3, it is stated that all roof slabs and elevated slabs are considered cracked with an out-of-plane bending stiffness of 50% of the gross section stiffness.

The assumption of cracked or uncracked concrete properties will affect the distribution of loads in the structure and will affect the demand-to-capacity ratios in the members of the structure. The applicant is requested to demonstrate that the 50% reduction in gross section stiffness for all roof slabs and elevated slabs is consistent with the concrete demands predicted by the structural models, and that the final distribution of loads is consistent with the final combined loads in the members.

03.07.02-20

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 System Analysis.'

On page 3MM-1 of Revision 1 of the CPNPP COLA, Part 2, FSAR, it is stated that the materials and properties of the roof slabs are adjusted to reflect cracked concrete that has 50% reduction of the flexural out-of-plane stiffness. The assumption of cracked or uncracked concrete properties will affect the distribution of loads in the structure and will affect the demand-to-capacity ratios in the members of the structure. The applicant is requested to demonstrate that the 50% reduction in out-of-plane stiffness for the roof slabs is consistent with the concrete demands predicted by the structural models, and that the final distribution of loads is consistent with the final combined loads in all members.