

## PMComanchePeakPEm Resource

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**Sent:** Monday, September 14, 2009 5:22 PM  
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**Cc:** Ward, William; ComanchePeakCOL Resource  
**Subject:** Comanche Peak RCOL- Section 5.2.5 - RAI # 58  
**Attachments:** RAI 3457(RAI 58).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.

The response to this RAI is due within 42 calendar days of September 14, 2009.

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

thanks,

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

**Hearing Identifier:** ComanchePeak\_COL\_Public  
**Email Number:** 601

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**Subject:** Comanche Peak RCOL- Section 5.2.5 - RAI # 58  
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**Received Date:** 9/14/2009 5:22:07 PM  
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Request for Additional Information (RAI) No. 3457

RAI # 58

9/14/2009

Comanche Peak Units 3 and 4  
Luminant Generation Company, LLC.  
Docket No. 52-034 and 52-035

SRP Section: 05.02.05 - Reactor Coolant Pressure Boundary Leakage Detection  
Application Section: 5.2.5

QUESTIONS for Balance of Plant Branch 2 (ESBWR/ABWR) (SBPB)

05.02.05-1

RAI 05.02.05-1

The review of Comanche Peak RCOL application is in parallel with the review of US-APWR design certification (DC), and therefore, is affected by the DCD review. In a letter, dated February 20, 2009 for the response to RAI 165-1967 Question 05.02.05-3 relating to US-APWR DCD Section 5.2.5, "Reactor Coolant Pressure Boundary (RCPB) Leakage Detection," MHI identified leakage detection procedures and alarm set points to be described in DCD Section 13.5.2.1. DCD Section 13.5.2.1, "Operating and Emergency Operating Procedures," states that the procedures are developed by the COL Applicant. Therefore, the NRC staff requests the COL applicant to provide the following information relating to the above RAI.

- Provide procedures to convert the instrument indications of various leakage detection (e.g., containment radioactivity monitors, containment sump level monitor, containment air cooler condensate flow rate monitor) into common leakage rate (gpm).
- Define the alarm setpoints and demonstrate the setpoints are sufficiently low to provide an early warning for operator actions prior to Technical Specification (TS) limits.

05.02.05-2

RAI 05.02.05-2

In a letter, dated February 20, 2009, MHI responded to RAI 165-1967 Question 05.02.05-4 relating to APWR DCD Section 5.2.5, "Reactor Coolant Pressure Boundary (RCPB) Leakage Detection." In the response, MHI stated that leakage detection procedures for prolonged low-level leakage are to be described in DCD Section 13.5.2.1. DCD Section 13.5.2.1, "Operating and Emergency Operating Procedures," states that the procedures are developed by the COL Applicant. Therefore, the NRC staff requests the COL applicant to provide such information relating to the above RAI.

The operating experience at Davis Besse indicated that prolonged low-level unidentified leakage inside containment could cause material degradation such that it could potentially compromise the integrity of a system leading to the gross rupture of the reactor coolant pressure boundary. The applicant is requested to provide operating procedures that specify operator actions in response to prolonged low level leakage conditions that exist above normal leakage rates and below the TS limits to provide operator sufficient time to take actions before the TS limit is reached. The procedures would include identifying, monitoring, trending, and repairing prolonged low-level leakage. The guidance about developing such procedures for ensuring effective management of leakage, including low-level leakage, is available in Regulatory Guide 1.45, Revision 1 (dated May 2008), "Guidance on Monitoring and Response to Reactor Coolant System Leakage," Regulatory Position C3.