

## PMComanchePeakPEm Resource

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**From:** Monarque, Stephen  
**Sent:** Wednesday, September 30, 2009 8:39 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:** Otto, Ngola; ComanchePeakCOL Resource  
**Subject:** Comanche Peak RCOL Section 12.3-12.4 - RAI # 99  
**Attachments:** RAI 3511 (RAI 99).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 36 calendar days of September 29, 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:** 655

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**Subject:** Comanche Peak RCOL Section 12.3-12.4 - RAI # 99  
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**Received Date:** 9/30/2009 8:39:20 PM  
**From:** Monarque, Stephen

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**Options**

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Request for Additional Information (RAI) No. 3511

RAI # 99

9/30/2009

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

SRP Section: 12.03-12.04 - Radiation Protection Design Features  
Application Section: SRP 12.3-12.4

QUESTIONS for Health Physics Branch (CHPB)

12.03-12.04-1

10 CFR 20.1406, Regulatory Guide 4.21, NEI 08-08, IEB 80-10, and NUREG-0800  
Standard Review Plan (SRP) Sections 12.3-12.4

NUREG-800, Standard Review Plan (SRP) Section 12.3-12.4 requests that the applicant describe features that will meet the requirements of 10 CFR 20.1406 for a program to minimize contamination of the facility and the environment, and the facilitation of the eventual decontamination of the facility. The regulatory position statements of Regulatory Guide 4.21, 'Minimization of Contamination and Radioactive Waste Generation: Life Cycle Planning,' (June 2008) provide guidance related to the prevention and early detection of leakage, which includes barriers to leakage, and maintenance and monitoring of components important to the prevention of leakage. The appendices of this regulatory guide, and information provided in documents such as the "Liquid Radioactive Release Lessons Learned Task Force Final Report" indicate that prevention and detection methods must be applied all the way from the material origination point to the final discharge point noted in the offsite dose calculation manual (ODCM). NRC Bulletin 80-10 describes events and configurations that resulted in contamination of normally clean systems, by interconnected contaminated systems. The combined license (COL) applicant is responsible for addressing the design, inspection and maintenance features provided to minimize facility contamination for those structures, systems and components provided by the applicant. Industry experience has shown that extensive environmental or facility and personnel contamination can occur due to leakage from systems or components such as:

- Portions of cooling water return piping located down stream of radioactive waste connection points
- Steam and condensate lines containing fluid supplied by the main steam or condensate system, due to the low level tritium content in secondary side water systems.
- Fluid systems supplied by recycled Reactor Coolant System water sources, such as the Primary Makeup Water Storage Tank.
- Interconnections between non-radiological plant systems, such as station air and demineralized water, and applicant supplied systems, such as mobile liquid waste processing systems.
- HVAC system condensate drains.
- Piping to and from COL applicant supplied structures, like evaporation ponds.

Please revise and update the COL FSAR to:

- a. Describe in Comanche Peak FSAR Chapter 12, the design features, and related inspection and inspection requirements, to prevent or mitigate contamination of the environment from COL applicant provided systems, structures and components, that may contain radioactive material,
- b. Describe in Table 1.9-201 "Comanche Peak Nuclear Power Plant, Units 3 and 4 Conformance with Division 1 Regulatory Guides", how Comanche Peak, Units 3 and 4 will comply with 10 CFR 20.1406 by use of RG 4.21 or NEI 08-08.

Alternately, describe and justify the specific approaches employed to prevent contamination of the environment and facility from COL Applicant provided Systems, Structures or Components containing radioactive material.