

PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Thursday, June 27, 2013 1:52 PM
To: John.Only@luminant.com; Donald.Woodlan@luminant.com; 'cp34-rai-luminant@mnes-us.com'; Eric.Evans@luminant.com; joseph tapia; 'Kazuya Hayashi'; 'Russ Bywater'; MNES RAI mailbox (cp34-rai-luminant@mnes-us.com)
Cc: ComanchePeakCOL Resource; Reyes, Ruth
Subject: Comanche Peak RCOL Chapter 19 - RAI Number 276
Attachments: RAI_7116 (RAI 276).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 **June 27, 2013**.

Note: The NRC staff requests that the RAI response include any proposed changes to the FSAR.

thanks,

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

Hearing Identifier: ComanchePeak_COL_Public
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From: Monarque, Stephen

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Request for Additional Information 276 (7116)

Issue Date: 6/27/2013

Application Title: Comanche Peak Units 3 and 4 - Dockets 52-034 and 52-035

Operating Company: Luminant Generation Company, LLC.

Review Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation

Application Section: 19.2

QUESTIONS

19-27

In the Request for Additional Information 267-6907, Question 19-23, the staff requested that the applicant address the discrepancy in maximum averted cost-risk stated in COL FSAR Section 19.2.6.6 ("Cost-Benefit Comparison") and COL Environmental Report Section 7.3.3 ("Monetization of the Base Case"). In response to Question 19-23, dated December 18, 2012, the applicant provided a mark-up of relevant pages in the COL FSAR and the Environmental Report. The staff found these mark-ups acceptable. However, the applicant should also update Table 19.2-9R, "SAMA Cost Evaluation Results," of the COL FSAR accordingly.

19-28

In the US-APWR design certification's (DC) severe accident mitigation design alternatives (SAMDA) analysis and the combined license's (COL) severe accident mitigation alternatives (SAMA) analysis, it is assumed that the population dose risk from internal events at power is applicable to internal fire at power, internal flooding at power, and low-power/shutdown (LPSD) events. A core damage frequency (CDF) scaling factor was applied to adjust the population dose risk from internal events to the other event categories. The same assumption is applied to the offsite property damage risk. However, if the population dose risk and offsite property damage risk were based on the actual release category source terms from the Level 3 PRA analysis for internal events, internal fire, internal flooding, and LPSD events (i.e., Tables 2.2-3 (Internal), 3.1-4 (Flood), 3.2-3 (Fire), and 3.3-5 (LPSD) of the updated Level 3 PRA document, MUAP-08004-P, discussed in COL FSAR Section 19.2.6.2), then the total maximum averted cost would likely be greater than that calculated by the CDF scaling factor method. As an example, for the US-APWR DC that assumed a generic site, the population dose risk and offsite property damage risk increased by a factor of about 3 when considering the actual release category source terms for internal events, internal fire, internal flooding, and LPSD events.

The staff requests that the applicant substantiate the conclusions of the SAMA taking into consideration averted costs based on site-specific parameters and actual release category source terms for internal events at power, internal fire at power, internal flooding at power, and LPSD events. Also, please provide the following from the updated Level 3 PRA analysis discussed in COL FSAR Section 19.2.6.2 for internal events at power, internal fire at power, internal flooding at power, and LPSD events:

- (1) site-specific population doses (person-rem) and site-specific offsite property damage costs (\$) from each release category.
- (2) MACCS2 input and output files in electronic format for all of the consequence runs.

