

PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Thursday, March 10, 2011 8:57 AM
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Cc: ComanchePeakCOL Resource; Kallan, Paul
Subject: Comanche Peak RCOL Chapter 9 - Section 9.4.1 - RAI Number 207
Attachments: RAI 5598 (RAI 207).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 March 10, 2011.

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
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Request for Additional Information (RAI), COLA No. 5598 Revision 1

RAI Letter Number 207

3/10/2011

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 09.04.01 - Control Room Area Ventilation System
Application Section: FSAR Section 9.4.1.2

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)

09.04.01-3

This is follow-up question to RAI No. 3219 (RAI Letter No 63), Question No. 09.04.01-1. The applicant provided its responses to RAI No 3219 on October 30, 2009 and October 29, 2010. (ADAMS Accession Numbers ML093090163 and ML103060043).

The applicant, in its response dated October 23, 2009 (ML093090163) provided information on the basic equation used and the parameters used to derive the kilowatt sizing of each air handling unit (AHU) heater. The applicant based this calculation on an outside air temperature of -0.5°F, based on the historical limit excluding 2 hour peaks from COLA FSAR Table 2.0-1R. The applicant amended this response on October 29, 2010 (ML103060043) with a recalculated heater size based on outside air temperature of -5°F based on the more conservative 0% exceedance minimum value. This revision of FSAR Table 2.0-1R data was driven by the applicant's response to RAI No. 4606 (RAI Letter No 155), Question No. 02.03.01-6, dated September 29, 2010 (ML102780284).

The staff evaluated the information presented in the RAI responses and concluded that the methodology used to derive the kilowatt sizing of each AHU heater was reasonable. However it was not obvious or verifiable from the data presented in the RAI responses, that the resultant temperature from mixing the two air streams of 18,000 cfm returning from the control room with 1800 cfm of fresh outside air was accurate. Furthermore, the calculations, inputs (e.g. MCR heat loads) and assumptions used to determine the 75.1°F return temperature of the air (i.e. 18,000 cfm) from the MCR were not part of the applicant's response. The derivation of this parameter is a key in determining the integrity of the heater sizing calculations. Therefore, the NRC staff requests that the applicant make available to the staff, the calculations, assumptions and input parameters used in the derivation of the MCR air handling unit heaters. As an option, Luminant may place these calculations and supporting information in the Luminant's Comanche Peak electronic reading room. Alternatively, the staff can perform a formal audit of the applicant's engineering support calculations at the applicant's business site.

The staff also notes that the applicant, in its response to Question No. 09.04.01-1, did not amend FSAR section 9.4.1.2 to reflect the design basis of the heaters (i.e. change of outside air temperature from -0.5°F to -5.0°F). The staff requests that the applicant correct this FSAR deficiency as part of its response.