

PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Tuesday, January 18, 2011 5:01 PM
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Cc: ComanchePeakCOL Resource; Roy, Tarun
Subject: Comanche Peak RCOL Chapter 17 Section 17.4 - RAI Number 197
Attachments: RAI 5312 (RAI 197).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 **January 18, 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

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1/18/2011

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 17.04 - Reliability Assurance Program (RAP)
Application Section: Section 17.4

QUESTIONS for PRA and Severe Accidents Branch (SPRA)

17.04-5

Based on COL Information Item 17.4(1) in Section 17.4.9 ("Combined License Information") of the US-APWR DCD, Revision 2, the structures, systems, and components (SSCs) in Phase II of the Design Reliability Assurance Program (D-RAP) should include the combination of site-specific risk-significant SSCs and risk-significant SSCs identified in the US-APWR DCD to form a complete list for the specific plant. This complete list of SSCs would be subjected to the D-RAP process in Phase III. However, Section 17.4.7.4 ("Phase II D-RAP Implementation and SSCs Included") of the Comanche Peak, Units 3 and 4 COL FSAR, Revision 1, states: "The SSCs included in Phase II are listed in Table 17.4-201." Also, Section 17.4.8 ("ITAAC for the D-RAP") of the COL FSAR states: "A list of the risk-significant SSCs for the Phase II D-RAP is provided in Table 17.4-201." But, Table 17.4-201 only lists the site-specific risk-significant SSCs (i.e., cooling tower fan[s]) and is not a complete list of risk-significant SSCs.

The staff requests that the applicant clarify in Sections 17.4.7.4 and 17.4.8 of the Comanche Peak, Units 3 and 4 COL FSAR that the SSCs included in Phase II of the D-RAP include the combination of site-specific risk-significant SSCs (i.e., SSCs listed in Table 17.4-201) and risk-significant SSCs identified in the US-APWR DCD (and modified for any departures) to form a complete list for the specific plant.

17.04-6

From US-APWR DCD Tier 2, Revision 2, Section 9.2.1.2.2.1 ("ESWPs"), the essential service water pump (ESWP) motors are water cooled. The SSCs that provide cooling water to the ESWP motors are considered risk-significant in Table 17.4-1 of US-APWR DCD Tier 2, Revision 2, Section 17.4 (e.g., EWS-VLV-602A, B, C, D; EWS-VLV-601A, B, C, D; EWS-FT-070, 071, 072, 073; ESWP motor cooling line orifices, and ESWP cooling line in Table 17.4-1). However, based on Section 19.1.4.1.2 ("Results from the Level 1 PRA for Operations at Power") of the Comanche Peak, Units 3 and 4 COL FSAR, Revision 1, it is the staff's understanding that the ESWP motors for Comanche Peak 3 & 4 are air-cooled. As such, the risk-significant SSCs listed in Table 17.4-1 of the US-APWR DCD Tier 2 that provide cooling water to the ESWP motors may not be applicable to the Comanche Peak 3 & 4 design and, therefore, should not be included in the complete list of risk-significant SSCs for the plant. The staff considers the removal of

these SSCs from Table 17.4-1 to be a departure from the US-APWR DCD, which was not identified in the COL FSAR. The staff requests that the applicant identify this departure in Section 17.4 of the Comanche Peak 3 & 4 COL FSAR; or otherwise provide a justification for not making this change.

17.04-7

The applicant did not include the essential service water (ESW) room ventilation system in Table 17.4-201 of the Comanche Peak Units 3 and 4 COL FSAR, Revision 1, Section 17.4. Since the ESW pump motors are air cooled and considered risk-significant, it would suggest that the SSCs necessary to provide room ventilation for these pump motors are also risk-significant.

The staff requests that the applicant include in Table 17.4-201 of the Comanche Peak 3 & 4 COL FSAR, the risk-significant SSCs necessary to provide room ventilation for the ESW pump motors. Otherwise, provide the basis for not including these SSCs in Table 17.4-201 of the COL FSAR (include in the basis a discussion of the associated risk importance measures from the various PRA models, consideration of deterministic methods, e.g., defense-in-depth, and the expert panel's deliberation for not including these SSCs in RAP).

17.04-8

In RAI 17.04-2 the staff requested that the applicant list in Section 17.4.5 ("Integration into Existing Operational Programs") of the Comanche Peak 3 & 4 COL FSAR the "other" operational programs used for the integration of O-RAP and provide, if applicable, cross-references to the specific sections of the application where these programs are described. In a response to RAI 17.04-2, dated December 9, 2009, the applicant included operational programs such as maintenance rule, Quality Assurance, inservice inspection, inservice testing, and reactor vessel material surveillance programs. However, the applicant did not include the maintenance program and Technical Specifications surveillance test program. These programs are necessary to detect and mitigate degradation of a functioning system, structure, or component (SSC) or to restore to an acceptable level of performance the design functions of a failed SSC. Including these programs would be consistent with COL FSAR Section 17.6, which incorporates by reference NEI 07-02A. [Specifically, Section 17.X.3 of NEI 07-02A states: "Reliability during the operations phase is assured through the implementation of operational programs, i.e., the MR program, the Quality Assurance Program, inservice inspection and testing programs, the Technical Specifications surveillance test program, and maintenance programs.]

The staff requests that the applicant also include under "other" operational programs in Section 17.4.5 of the COL FSAR the maintenance program and Technical Specifications surveillance test program, and provide, if applicable, cross-references to the specific sections of the application where these programs are described.