PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Wednesday, September 30, 2009 8:19 PM
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Cc: Ward, William; ComanchePeakCOL Resource
Subject: Comanche Peak RCOL Section 14.2 - RAI # 98
Attachments: RAI 3790 (RAI 98).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
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From: Monarque, Stephen

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Request for Additional Information (RAI) No. 3790

RAI # 98

9/30/2009

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-15

Applicants for standard plant design approval must provide plans for preoperational testing and initial operations in accordance with 10 CFR 50.34(b)(6)(iii) requirements. The US-APWR Design control document (DCD) Tier 2, Section 14.2.12.1.34, "Essential Service Water System Preoperational Test," describes the initial test program for the essential service water system (ESWS). The results of the ESWS test programs are considered to be acceptable if the ESWS performs as described in Tier 2 of the DCD Section 9.2.1, "Essential Service Water System."

US-APWR DCD COL item 14.2(10) states that the applicant is responsible for testing outside the scope of the certified design in accordance with the criteria in DCD Section 14.2.1, "Summary of Test Program and Objectives." As a result, the combined license (COL) applicant has added a preoperational test that addresses ESW system components. In Tier 2, COL FSAR Section 14.2.12.113, "Ultimate Heat Sink Preoperational Test," added by the COL applicant, the ESWS pumps are tested, including at basin minimum water levels, to verify that the ESW pumps provide design flow rates.

The COL application does not include a preoperational test of the ESWS blowdown system, as the US-APWR DCD, COL Item 9.2(7) was revised in August 2008 to include this test.

Another item that was not addressed by the COL (COL Item 9.5(2)) was testing of the ESWS to the fire protection service system (FSS) at the combined required flow rates of 567 liters per minute (150 gpm).

The applicant is requested to provide the following information:

- Provide a description in Section 14.2 of the COL FSAR for testing of the ESWS blowdown system.
- Provide a description in Section 14.2 of the COL FSAR of testing of the ESWS valves to the FSS at the required flow rates, including the hose stations located in the RB and ESWS pump house. Testing should include verification that the ESWS can still perform its intended function (flow rates and pressure) with the fire lines in service.

14.02-16

Since the ultimate heat sink (UHS) for the US-APWR is a site-specific system, COL applicants need to establish the applicable initial test program requirements. This is specified by COL Information Item 14.2(10), which requires COL applicants to establish test abstracts for site-specific systems. The applicant addressed this COL information item for Comanche Peak (in part) by providing FSAR Test Abstract 14.2.12.113, "Ultimate Heat Sink (UHS) System Preoperational Test." Based on a review of this test abstract, the staff found that the following items need to be addressed and the test abstract needs to be revised as appropriate to reflect this information:

- Objective 3 is to demonstrate the operation of the UHS transfer pumps and interlocks. However, FSAR Section 9.2.5 does not describe any interlocks for the UHS transfer pumps. Also, like the ESWS pumps, the UHS transfer pumps need to be tested at the minimum (30 day) water level to demonstrate that design flow rate can be maintained.

- Objective 4 is to demonstrate (in part) operation of controls and interlocks. It is not clear what controls and interlocks are being referred to and they need to be better described.

- Item C.1 refers to UHS transfer pump interlocks, but none are described in FSAR Section 9.2.5. Likewise for Item D.1.

- Item C.2 specifies performance testing of the ESWS pumps and similar testing of the UHS transfer pumps is needed, including demonstration of adequate performance with decreasing level. Likewise for the acceptance criteria specified in D.1.