

PMComanchePeakPEm Resource

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Sent: Tuesday, September 29, 2009 8:32 PM
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Cc: ComanchePeakCOL Resource; Otto, Ngola
Subject: Comanche Peak RCOLA Chapter 16 - RAI # 91
Attachments: RAI 3315 (RAI 91).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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Request for Additional Information (RAI) No. 3315

RAI # 91

9/29/2009

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 16 - Technical Specifications
Application Section: 16

QUESTIONS for Technical Specification Branch (CTSB)

16-11

LCO 3.3, Instrumentation

Revise the Instrumentation Bases references to 10 CFR 50.36(d)(2)(ii) in the Comanche Peak Units 3 and 4 Bases.

10 CFR 50.36, "Technical Specifications," has been amended by changing the designation of paragraph (d) to paragraph (c), in order to resolve administrative issues. Correct the 10 CFR 50.36 reference in the following Limiting Condition for Operation (LCO) Bases Sections of the Comanche Peak Units 3 and 4 Instrumentation Bases.

- B 3.3.1, Reactor Trip System (RTS) Instrumentation, page B 3.3.1-28
- B 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation, page B 3.3.2-38
- B 3.3.4, Remote Shutdown Console (RSC), page B 3.3.4-1
- B 3.3.5, Loss of Power (LOP) Class 1E GTG Start Instrumentation, page B 3.3.5-2
- B 3.3.6, Diverse Actuation System (DAS) Instrumentation, page B 3.3.6-5

The revisions are needed to ensure the accuracy and completeness of the Comanche Peak, Units 3 and 4 Bases.

16-12

LCO 3.3.1, RTS Instrumentation

Revise the Comanche Peak Units 3 and 4 PTS to correct editorial and reference errors identified in Table 3.3.1-1.

The Comanche Peak Units 3 and 4 PTS, Table 3.3.1-1, pages 3.3.1-18, 3.3.1-21, and 3.3.1-22 contain the following editorial and reference errors:

- Table 3.3.1-1, Functions 15.c and 15.d, page 3.3.1-18, need spaces between the Trip Setpoint values of 10% and Units of rated thermal power (RTP).
- Table 3.3.1-1, Note 1: Overtemperature ΔT , page 3.3.1-21, incorrectly specifies T and T' instead of T_{avg} and T_{avg0} , respectively, in the term descriptions.
- Table 3.3.1-1, Note 2: Overpower ΔT , page 3.3.1-22, incorrectly specifies T and T' instead of T_{avg} and T_{avg0} , respectively, for the K_9 term.

The revisions are needed to ensure the accuracy and consistency of the Comanche Peak, Units 3 and 4 PTS.

16-13

LCO 3.3.2, ESFAS Instrumentation

Provide the additional information and any changes necessary to explain and correct a potential discrepancy regarding the omission of US APWR Bases information from the SURVEILLANCE REQUIREMENTS (SR) Section of the Comanche Peak Units 3 and 4 Bases.

The Comanche Peak Units 3 and 4 Bases, SURVEILLANCE REQUIREMENTS, SR 3.3.2.4 (page B 3.3.2-53), omits the third sentence of the corresponding paragraph in the US APWR Bases, SURVEILLANCE REQUIREMENTS, which states that “[t]he Actuation Outputs are solid state devices.” SR 3.3.2.4 is the performance of a Trip Actuating Device Operational Test (TADOT) for the Actuation Outputs of all Engineered Safety Feature Actuation System (ESFAS) functions. It is unclear why this statement, which appears to be relevant, would be excluded from the Bases of SR 3.3.2.4, yet retained in the Bases discussions of both SR 3.3.5.5 (TADOT for the Actuation Outputs to start the Class 1E GTGs) and SR 3.3.6.5 (TADOT for the Actuation Outputs of all Diverse Actuation System functions). Determine if the referenced statement should be included in the Bases for SR 3.3.2.4 and make any necessary corrections.

The additional information is needed to ensure the accuracy and completeness of the Comanche Peak Units 3 and 4 Bases.

16-14

LCO 3.3.2, ESFAS Instrumentation

Revise the Comanche Peak Units 3 and 4 Bases to correct editorial errors identified in Bases Section B 3.3.2, ESFAS Instrumentation.

The Comanche Peak Units 3 and 4 Bases, ESFAS Instrumentation (B 3.3.2), pages B 3.3.2-5 and B 3.3.2-7 contain the following editorial errors:

- The Comanche Peak Units 3 and 4 Bases, BACKGROUND, page B 3.3.2-5 (second paragraph), misspells the word “self-tested” in the first sentence.

- The Comanche Peak Units 3 and 4 Bases, APPLICABILITY SAFETY ANALYSES, LCO and APPLICABILITY, page B 3.3.2-7 (sixth bullet), misspells the word “Pump” in the second line.

The revisions are needed to ensure the accuracy and consistency of the Comanche Peak Units 3 and 4 Bases.

16-15

NUREG-0800, Standard Review Plan, Chapter 16, "Technical Specifications," establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations.

LCO 3.3.5, LOP Class 1E [gas turbine generator] GTG Start Instrumentation

Provide a technical justification for the Time Delay values specified in Table 3.3.2-1 and Surveillance Requirement (SR) 3.3.5.3 of the Comanche Peak Units 3 and 4 PTS.

The Comanche Peak Units 3 and 4 PTS, Table 3.3.2-1, Function 6.e (LOOP Signal), specifies a 2-second time delay for the Emergency Feedwater Actuation - Loss of Offsite Power Function. In addition, the Comanche Peak, Units 3 and 4 TS, SR 3.3.5.3, page 3.3.5-2, specifies 2-second and 10-second time delays for loss of voltage and degraded voltage conditions, respectively. The selection of these time delays, which differ from the bracketed values specified in the US APWR Generic TS, is specifically addressed in Section A of Part 4 (Technical Specifications) of the Comanche Peak, Units 3 and 4 COL Application. The justification provided in both cases states “[e]stablishes consistency with CPNPP Units 1 and 2 Technical Requirements Manual.” It is unclear how the selection of time delay values for a new design which incorporates the use of Gas Turbine Generators, can be adequately justified on the basis of establishing consistency with the Technical Requirements Manual for the two operating CPNPP Units. Provide a technical justification that addresses the basis for the time delay values specified.

The technical justification is needed to ensure the accuracy and completeness of the Comanche Peak Units 3 and 4 PTS.

16-16

LCO 3.3, Instrumentation

Provide the additional information and make the necessary changes to propose Plant-Specific Technical Specifications (PTS) that are complete and contain sufficient information to support issuance of a combined license (COL).

On December 9, 2008, the NRC issued Final Interim Staff Guidance Document DC/COL-ISG-8, “Necessary Content of Plant-Specific Technical Specifications When a Combined License Is Issued.” The interim staff guidance (ISG) clarifies NRC position on what constitutes an acceptable set of Plant-Specific Technical Specifications required for a COL applicant to demonstrate compliance with Sections 182a and 185b of the Atomic Energy Act and 10 CFR Part 52.

The ISG specifically states that “[t]o comply with the Act and the regulations applicable to PTS issued with a COL referencing a standard DC rule, present and future COL applicants shall propose PTS containing all site-specific information that is necessary to ensure plant operation within its design basis. The COL applicant shall confirm all preliminary information and provide all missing information that is denoted in the generic technical specifications by bracketed values, reviewer’s notes, or any other placeholder. The PTS issued with the COL will be complete and will contain no COL action (or information) items for the COL holder to resolve (i.e., completing the PTS). The COL will contain no license condition on completing the PTS.”

The ISG also states:

"Present and future COL applicants shall resolve all generic technical specification COL action (or information) items before COL issuance. The COL applicant may propose to resolve each such item using one of the following three options, listed in order of preference:

- (1) Provide a plant-specific value.
- (2) Provide a value that bounds the plant-specific value, but which the plant may be safely operated (i.e., a usable bounding value).
- (3) Establish a PTS Section 5.5 or 5.6 administrative controls program or report.

Such an administrative controls technical specification as described in option (3) shall require (a) use of an NRC-reviewed and -approved methodology for determining the plant-specific value, (b) establishment of an associated document, outside the PTS, in which the relocated plant-specific value shall be recorded and maintained, and (c) any other information or restrictions the NRC staff deems necessary and appropriate to satisfy 10 CFR 50.36. For example, some COL applicants have proposed an administrative controls technical specification for a setpoint control program to satisfy 10 CFR 50.26(c)(1)(ii)(A) in lieu of specifying explicit values for the limiting safety system settings in the PTS.

Options (2) and (3) should allow an applicant to provide the necessary information without relying on information that is impractical to obtain before the time of COL issuance (i.e., information such as design detail, equipment selection, as-built system configuration, and system test results)."

The following COL Holder Items were identified in the Comanche Peak Units 3 and 4 PTS, Section 3.3, and Bases, Section B.3.3, Instrumentation:

- In PTS Table 3.3.1-1, the brackets were removed and the following NOTE added: “[i]n all case, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations.”

- In PTS Table 3.3.1-1, Note 1: Overtemperature ΔT , page 3.3.1-20, brackets were retained for the % RTP (DNB Protection) and % RTP (Core Exit Boiling Limit) Allowable Value limits.
- In PTS Table 3.3.1-1, Note 2: Overpower ΔT , page 3.3.1-22, brackets were retained for the % RTP Allowable Value limit.
- Bases B 3.3.1, APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY, page B 3.3.1-8 (third paragraph), incorporates the following additional text: "[i]n Table 3.3.1-1, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- In PTS Table 3.3.2-1, the brackets were removed and the following NOTE added: "[i]n all case, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- Bases B 3.3.2, APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY, page B 3.3.2-6 (second paragraph), incorporates the following additional text: "[i]n Table 3.3.2-1, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- In Surveillance Requirement (SR) 3.3.5.3, the brackets were removed and the following NOTE added: "[i]n all case, the values specified for Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- Bases B 3.3.5, SURVEILLANCE REQUIREMENTS, page B 3.3.5-6 (second paragraph), incorporates the following additional text: "[i]n SR 3.3.5.3, the values specified for Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- In PTS Table 3.3.6-1, the brackets were removed and the following NOTE added: "[i]n all case, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations."
- Bases B 3.3.6, APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY, page B 3.3.6-6 (second paragraph), incorporates the following additional text: "[i]n Table 3.3.6-1, the values specified for Allowable Values and Setpoints will be confirmed following completion of the plant specific

setpoint study. These values will be calculated in accordance with the setpoint methodology after selection of plant specific instrumentations.”

Resolve the COL Holder Items in accordance with the referenced interim staff guidance. Propose Plant-Specific Technical Specifications for Instrumentation that are complete and contain no COL action (or information) items. For an applicant selecting Option (3) of DC/COL-ISG-8, the NRC staff requests the applicant model the Setpoint Control Program (SCP) Specification based on the SCP Specification developed in the ESBWR DC review, with suitable terminology changes to conform to the Comanche Peak, Units 3 and 4 setpoint methodology. In addition, each CHANNEL CALIBRATION SR shall state: “Perform CHANNEL CALIBRATION on each required channel consistent with Specification 5.5.XX, “Setpoint Control Program (SCP).” It is the NRC staff’s position that conformance to the model will be necessary to conclude that the Setpoint Control Program satisfies 10 CFR 50.36(c)(1)(ii)(A).