

PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Wednesday, January 26, 2011 1:42 PM
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Cc: ComanchePeakCOL Resource; Otto, Ngola
Subject: Comanche Peak RCOL Chapter 11 Section 11.3 - RAI Number 200
Attachments: RAI 5375 (RAI 200).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 26, 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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Request for Additional Information (RAI) No. 5375, COLA Revision 1

RAI Letter Number 200

1/26/2011

Comanche Peak Units 3 and 4
Luminant Generation Company, LLC.
Docket No. 52-034 and 52-035
SRP Section: 11.03 - Gaseous Waste Management System
Application Section: 11.3

QUESTIONS for Health Physics Branch (CHPB)

11.03-3

The NRC Staff's review of COLA FSAR (Rev. 1) Section 11.3.1.5, Updated Tracking Report (UTR) (Revisions 3 and 4), and the response to RAI 3401, Question 11.04-3 (RAI Letter Number 39) found that the applicant did not fully describe information on the site-specific cost-benefit analysis (CBA) for the GWMS to satisfy CP COL 11.3(8) and meet the compliance with 10 CFR Part 50, Appendix I, Section II.D. FSAR Section 11.3.1.5 states the addition of processing equipment of reasonable treatment technology is not favorable or cost beneficial given the population dose of 2.59 person-rem/yr (Total Body), 2.97 person-rem/yr (Thyroid), and the equipment and operating costs in Regulatory Guide (RG) 1.110.

Please address the following items and provide a mark-up of the proposed FSAR changes.

1. Confirm the above population doses to the Thyroid and Total Body from gaseous effluents in FSAR Section 11.3.1.5, which appear to be evaluated prior to restricted public use of Squaw Creek Reservoir at the Comanche Peak site.
2. In the response to RAI 3401, Question 11.04-3 (RAI Letter Number 39), the site-specific CBA for the GWMS assumes effluent population doses of 5 person-rem/yr (Total Body) and 4 person-rem/yr (Thyroid). The response provides site-specific inputs to determine the Capitol Recovery Factor (CRF) and Labor Cost Correction Factor (LCCF), but does not identify augment(s) listed in Table A-1 to RG 1.110 or other associated costs described in Appendix A to RG 1.110 applied in the site-specific CBA calculation. Specifically, identify the GWMS augment(s) and all costs considered in the site-specific CBA and provide sufficient information for the NRC staff to evaluate the bases and assumptions of these costs used to determine the site-specific CBA in order to verify compliance with NRC regulations and conformance to NRC guidance.

11.03-4

The NRC Staff's review of FSAR (Rev. 1) Section 11.3 and Tables 11.3-8R, 11.3-9R (Sheets 1 and 2), 11.3-201, 11.3-202, 11.3-203, 11.3-204, and 11.3-205, UTR (Rev. 3 and 4), and response to RAI 3400, Question 11.03-2 (RAI Letter Number 36) found the applicant did not fully describe information on the calculated annual gaseous effluent releases and doses, as it relates to the evaporation pond, the Squaw Creek Reservoir, and the normal releases, to satisfy CP COL 11.3(6) and verify compliance with NRC regulations. Please address the following and provide a mark-up of the proposed FSAR changes.

1. FSAR (Rev. 1) Table 11.3-8R indicates gaseous effluent releases are taken from DCD Tier 2, Table 11.3-5 (Sheet 1 through 3) without departure. Given that a plant-specific liquid effluent releases are presented in FSAR (Rev. 1) Table 11.2-10R (Sheets 1 and 2), justify why plant-specific gaseous effluent releases are not provided in FSAR Section 11.3.
2. FSAR Section 11.3.3.1 describes annual average gaseous effluent releases are taken from DCD Table 11.3-5 (Sheets 1 through 3) to calculate population doses from gaseous effluents resulting from normal operation for a plant referencing the US-APWR design at the Comanche Peak site. Confirm whether the population doses from gaseous effluent releases in FSAR Table 11.3-9R (Sheets 1 and 2) are calculated using a plant-specific gaseous effluent releases. Discuss this impact on the calculations of maximum gaseous effluent releases, and the expected and maximum annual gaseous effluent fractions of concentration limits (sum-of-fractions). Note that Ba-137m identified in DCD Table 11.3-5 (Sheet 3 of 6) is not included in the GASPAR II library. Discuss this impact on the calculated population doses from gaseous effluents in FSAR Sections 11.2 and 11.3.
3. FSAR Tables 11.3-10R (Sheets 1 and 2), 11.3-205 and 11.3-206 to UTR (Rev. 3) present population doses from normal gaseous effluents, total doses due to gaseous effluents from the plant vent stack and evaporation pond, and total doses to the maximum exposed individual at the Squaw Creek Reservoir, respectively. Suggest adding a footnote to these tables to indicate that the calculated gaseous effluent doses are for a single new unit where applicable.
4. In FSAR Section 11.3 (and all other applicable FSAR sections), make reference to the MHI PWR-GALE code and the MHI Technical Report (TR) MUAP-10019 (R0) (ML102850683), which describes the methodology, basis, and assumptions for the calculation of expected and maximum annual gaseous effluent releases in normal operation including anticipated operational occurrences (AOOs) for plants referencing the US-APWR design.
5. FSAR Section 11.3.3.1 describes the gaseous effluent releases in FSAR Table 11.3-202 for the evaporation pond as determined, as half of the liquid effluent releases (except noble gases) in FSAR Table 11.2-10R (Sheets 1 and 2) assumed to be diverted into the evaporation pond and conservatively discharged into the atmosphere as aerosol vapor. Confirm whether the population doses from the evaporation pond are calculated using plant-specific liquid effluent releases.
6. FSAR Section 11.3.3.1 and Table 11.3-206 of UTR (Rev. 3) provide GASPAR II code calculations of population doses for restricted public access of the Squaw Creek Reservoir. Confirm whether these population doses are calculated using plant-specific gaseous effluent releases.
7. Update FSAR Section 11.3 to address the impact of the plant capacity factor of 80% applied in population dose calculations from gaseous effluents when typical operating plant capacity factors exceed 90% for compliance with NRC regulations and 40 CFR Part 190 (see response to US-APWR DCD RAI 523-4246, Question 11.02-30, ML100770379).

8. Provide copies of the electronic input/output files for the MHI PWR-GALE code calculation of annual gaseous effluent releases and the GASPAR II code calculation of population doses from gaseous effluents for restricted public use of Squaw Creek Reservoir which show demonstration of regulatory compliance.