

May 31, 2013

Dr. J. Sam Armijo, Chairman  
Advisory Committee on Reactor Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: CHAPTERS 4, 13, 15, 16, 17, AND 19 OF THE SAFETY EVALUATION REPORT  
WITH OPEN ITEMS FOR THE COMANCHE PEAK NUCLEAR POWER PLANT,  
UNITS 3 AND 4, US-APWR REFERENCE COMBINED LICENSE APPLICATION

Dear Dr. Armijo:

Thank you for your letter of April 26, 2013, which discusses your review of certain chapters of the staff's safety evaluations with open items (OIs) for the Comanche Peak Nuclear Power Plant, Units 3 and 4, combined license application. The safety evaluation chapters which you reviewed are the following: Chapter 4, "Reactor"; Chapter 13, "Conduct of Operations"; Chapter 15, "Transient and Accident Analyses"; Chapter 16, "Technical Specifications"; Chapter 17, "Quality Assurance and Reliability Assurance"; and Chapter 19, "Probabilistic Risk Assessment and Severe Accident Evaluation."

The purpose of this letter is to address the two specific recommendations from your letter for which the Advisory Committee on Reactor Safeguards (ACRS) sought specific staff action. Please see the enclosure for the staff's response to these two recommendations.

The staff appreciates the willingness of the ACRS to review the staff's safety evaluation report with OIs on a chapter-by-chapter basis during this phase of the review process and looks forward to the next meeting.

Sincerely,

***/RA Michael R. Johnson for/***

R. W. Borchardt  
Executive Director  
for Operations

Enclosure:  
Staff Response to Recommendation

cc: Chairman Macfarlane  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff  
SECY

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\*via e-mail

**EDO-002**

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DATE	05/17/2013	05/23/2013	05/23/2013	05/24/2013	05/31/2013

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**Staff Response to Recommendations in the Advisory Committee on Reactor Safeguards  
Letter on the Comanche Peak Nuclear Power Plant, Units 3 and 4, Combined License  
Application**

In a letter dated April 26, 2013, the Advisory Committee on Reactor Safeguards (ACRS) made two recommendations concerning the combined license application (COLA) for Comanche Peak Nuclear Power Plant, Units 3 and 4. This enclosure provides the staff's response to these two recommendations.

**Chapter 13: Conduct of Operations**

The ACRS recommended that the staff evaluate whether the planned minimum shift crew composition is adequate to effectively manage the response to site-wide events that affect both units.

The U.S. Nuclear Regulatory Commission (NRC) staff evaluated the proposed Comanche Peak Nuclear Power Plant (CPNPP), Units 3 and 4, emergency plan against the applicable regulatory requirements in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.47(b)(2) and 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." The NRC staff also evaluated the emergency plan against the detailed criteria in NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

The staff's review of the CPNPP, Units 3 and 4, emergency plan determined that the applicant adequately described the on-shift staff consistent with the response capabilities for plant personnel at each of the proposed units to ensure that the staffing for initial accident response in key functional areas would be adequate for a single-unit emergency event. The CPNPP, Units 3 and 4, emergency plan is consistent with the guidelines in Planning Standard B of NUREG-0654/FEMA-REP-1. Therefore, the information was acceptable and met the relevant requirements of 10 CFR 50.47(b)(2) and 10 CFR Part 50, Appendix E, Section III, "The Final Safety Analysis Report; Site Safety Analysis Report," Section IV.A, "Organization," and Section IV.C, "Activation of Emergency Organization," insofar as the information described the essential elements of advanced planning and the provisions made to cope with emergency situations.

On November 23, 2011, the Commission issued a final rule which amends certain emergency preparedness requirements in the regulations that govern the domestic licensing of production and utilization facilities. The final rule contained amendments that apply to both 10 CFR Part 50 licensees and similarly to certain applicants for construction permits under 10 CFR Part 50, as well as, early site permit and combined license applicants seeking NRC approval under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."

One amendment requires licensees to perform a staffing analysis of on-shift personnel, which are assigned emergency response duties, and ensures that these emergency responders do not become overburdened during an emergency event. The staff expects Luminant to address this requirement in Revision 4 of the CPNPP COLA which has a proposed submittal date of November 2013. This COLA revision is expected to address the emergency preparedness rule changes including an analysis of on-shift staffing for single-unit events.

Enclosure

In addition, by letter dated May 16, 2012, Agencywide Documents Access and Management System (ADAMS) Accession No. ML12124A036, the NRC informed Luminant that the agency would implement the Fukushima Near-Term Task Force recommendations contained in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami," dated February 17, 2012 (ADAMS Accession Number ML12039A103). The NRC staff issued a request for additional information on June 25, 2012, to specifically address Recommendation 9.3, "Provisions for Enhancing Emergency Preparedness," and requested that Luminant perform a staffing analysis to address their response capabilities to a multiunit event with a station blackout. By letter dated July 24, 2012 (ADAMS Accession Number ML12207A599), Luminant created a license condition to perform a staffing analysis regarding the capability to respond to a multiunit event with a station blackout in accordance with the Nuclear Energy Institute 12-01, Revision 0, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communication Capabilities," dated May 2012 (ADAMS Accession Number ML12125A412). This analysis is expected to demonstrate that on-shift personnel assigned emergency plan implementation functions are not assigned collateral duties or additional responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan. Luminant has committed to perform this analysis and address any gaps in capability prior to the full participation exercise required by Appendix E to Part 50` .

In consideration of Luminant's upcoming revision to the COLA to address the shift staffing analysis now required as a result of the November 2011 rulemaking, and Luminant's proposed license condition to perform a staffing analysis regarding the capability to respond to a multiunit event, the staff believes a process exists to evaluate whether the planned minimum shift crew composition is adequate to effectively manage the response to site-wide events that affect both units as recommended by the ACRS.

### **Chapter 19: Probabilistic Risk Assessment and Severe Accident Evaluation**

ACRS had recommended that the staff conduct a comprehensive audit to confirm that all technical elements of the full-scope, plant-specific probabilistic risk assessment (PRA) that is required before fuel load have received an independent review in accordance with Regulatory Guide 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," before the probabilistic risk assessment is used to support any risk-informed licensing applications and operational programs.

To demonstrate compliance with Combined License Action Item 19.3(1), Luminant has committed to perform peer reviews for the updated PRA prior to the use of PRA in risk-inform applications. Consistent with previous staff reviews of licensee's implementation of risk-managed technical specifications, the staff anticipates that it will conduct an inspection to ensure that the licensee meets the methodology commitments referenced in Technical Specifications Section 5.5.18, "Configuration Risk Management Program" and Section 5.5.19, "Surveillance Frequency Control Program." These commitments include PRA technical adequacy. Any such inspection would be performed after the NRC issues the combined license.