December 2, 2008

Mitch L. Lucas
Vice President, Nuclear Engineering & Support
Luminant Generation Company LLC
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: ACCEPTANCE REVIEW FOR THE COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4 COMBINED LICENSE APPLICATION AND ASSOCIATED FEDERAL REGISTER NOTICE

Dear Mr. Lucas:

By letter dated September 19, 2008, as supplemented by letters dated November 4, 5, 6, and 10, 2008, Luminant Generation Company LLC (Luminant) submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two United States – Advanced Pressurized Water Reactors (US-APWR) in accordance with the requirements contained in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." This letter informs you that the NRC staff has completed its acceptance review and has determined that your application is acceptable for docketing. These reactors will be identified as Comanche Peak Nuclear Power Plant, Units 3 and 4 and are to be located at the existing Comanche Peak site in Somervell County, Texas. The Docket Numbers established for Comanche Peak Nuclear Power Plant, Units 3 and 4 are 52-034 and 52-035, respectively.

The Comanche Peak Nuclear Power Plant combined license application (COLA) incorporates, by reference, the US-APWR Design Control Document, currently under NRC staff review. As allowed by 10 CFR 52.55(c), at your own risk, you have referenced a design certification application that has been docketed but not granted. Therefore, your COL review schedule is dependent on the review schedule for the design certification. Mitsubishi Heavy Industries, in consultation with Luminant, submitted revised information in the US-APWR design certification document (DCD) on November 7, 2008. The NRC staff is evaluating these changes to determine the impacts, if any, on the established US-APWR DCD application review schedule.

As discussed with your staff, although our acceptance review determined that the Comanche Peak COLA is complete and technically sufficient, the NRC staff cannot develop a complete and integrated schedule until the following issue has been addressed. The NRC staff has determined that the COLA, Part 2, Final Safety Analysis Report (FSAR) Section 2.4.13, "Accidental Releases of Radioactive Liquid Effluent in Ground and Surface Waters," does not have enough information to support the issuance of an integrated schedule. As such, Luminant is requested to provide a response to the NRC staff's request for additional information (RAI) shown in Enclosure 1.

As discussed in the preceding paragraph, the lack of supporting analyses in Part 2, FSAR Section 2.4.13 has caused scheduling uncertainty for the COLA. Therefore, the NRC staff does not intend to commence a review of this area until after the staff's RAI has been sufficiently addressed. For all other sections of the Comanche Peak COLA, the NRC staff intends to commence reviews based on the availability of resources.

Enclosure 2 is a notice of acceptance for docketing. This notice has been forwarded to the Office of the Federal Register. A separate notice will be published, in accordance with the provisions of 10 CFR 2.104, regarding the hearing for this application.

Should you have any questions or comments concerning this matter, I can be reached at 301-415-1544 or via email at Stephen.Monarque@nrc.gov.

Sincerely,

/RA/

Stephen Raul Monarque, Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-034
52-035

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

cc: See next page

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Should you have any questions or comments concerning this matter, I can be reached at 301-415-1544 or via email at Stephen.Monarque@nrc.gov.

Sincerely,

/RA/

Stephen Raul Monarque, Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-034
52-035

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

cc: See next page

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Request for Additional Information

Comanche Peak, Units 3 and 4

Docket Nos. 52-034 and 52-035

Questions on Comanche Peak Nuclear Power Plant combined license application (COLA), Part 2, Final Safety Analysis Report (FSAR) Section 2.4.13, Accidental Releases of Radioactive Liquid Effluent in Ground and Surface Waters,

2.4.13-1
Please provide additional site specific measured hydrologic parameters necessary to perform radionuclide transport under the assumed release scenario as required in 10 CFR 100.20(c). Specifically, please provide data and discussion to describe the ability of the applicable aquifers and surface water bodies to disperse, dilute and/or concentrate accidental releases along potential flow paths.

2.4.13-2
Please discuss the screening process used to select the radionuclides for the site specific sorption (Kd) analysis from the list of possible radionuclides included in the selected source tank.

2.4.13-3
Provide discussion on the presence or absence of chelating agents in the tank used for the source in the accidental release analysis.

2.4.13-4
Please provide a description of the process used to develop alternate conceptual models of groundwater flow which account for the effects of specific issues including a lack of equilibrium in groundwater levels (especially in the shallow bedrock) and potential effects of construction (i.e. the addition of fill, areas of increased or reduced recharge, etc.) on groundwater flow paths. Refer to NUREG-0800, Standard Review Plan (SRP) 2.4.13, “Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters.”

2.4.13-5
Please describe how the alternate conceptual models were used to determine a bounding set of plausible groundwater flow paths and how the most conservative flow path(s) were selected for the accidental release analysis.

2.4.13-6
Please clarify ambiguity in the description of the release scenario which was developed to support the accidental release analysis. Please specifically address the following:

a. Section 2.4.13 of the FSAR and your supplemental letter dated November 6, 2008, describe three tanks which were considered as potential sources for the accidental release scenario (the holdup tank, the waste holdup tank and the boric acid tank). Please state explicitly which tank was selected as the source tank for the accidental release and justify this selection by discussing how failure of this tank will result in the highest concentrations of radioactive material at the nearest unrestricted potable water supply, as described in NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Branch Technical Position (BTP) 11-6, "Postulated Radioactive Releases Due to Liquid-Containing Tank Failures".

b. In your supplemental letter dated November 6, 2008, the accidental release from these tanks was reported to occur in the Northwest corner of Unit 4 or the Northeast corner of Unit 3. Please explain how these release locations relate to the location of the Auxiliary Buildings where the tanks discussed as sources are located.

c. Section 2.4.13 of the FSAR and your supplemental letter dated November 6, 2008, identify both Squaw Creek Reservoir and the Units 1 and 2 water supply wells as potential receptors. Please clarify which of these receptors is most probable given BTP 11-6 guidance that the receptor be the nearest unrestricted source of potable water and explain how this receptor resulted from the selection of the most conservative flow path(s) from the bounding set of plausible groundwater flow paths.

2.4.13-7

The accidental release analysis provided in Section 2.4.13 of the FSAR appears to be a comparison to the non-site-specific example analysis described in Section 11.2.3.2 of the US-APWR design certification document (DCD). This comparison does not incorporate enough site-specific hydro geological parameters to satisfy the guidance in DCD action item COL 11.2(3) and SRP 2.4.13, and demonstrate compliance with the groundwater effluent concentration limits provided in 10 CFR Part 20, "Standards for Protection Against Radiation" at potential receptor locations.

Please provide a sufficiently detailed description of an accidental release analysis which incorporates site-specific measured hydrologic parameters important to radionuclide transport and include a discussion of procedures, methods, assumptions, parameters and/or equations which were used in this analysis.

[7590-01-P]

UNITED STATES NUCLEAR REGULATORY COMMISSION

LUMINANT GENERATION COMPANY LLC

ACCEPTANCE FOR DOCKETING OF AN APPLICATION FOR

COMBINED LICENSE FOR COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4

DOCKET NOS. 52-034 AND 52-035

By letter dated September 19, 2008, as supplemented by letter(s) dated November 4, 5, 6, and 10, 2008, Luminant Generation Company LLC (Luminant) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two United States – Advanced Pressurized Water Reactors (US-APWR) in accordance with the requirements contained in 10 CFR Part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants." These reactors will be identified as Comanche Peak Nuclear Power Plant, Units 3 and 4 and are to be located at the existing Comanche Peak site in Somervell County, Texas. A notice of receipt and availability of this application was previously published in the *Federal Register* (73 FR 66276) on November 7, 2008.

The NRC staff has determined that Luminant has submitted information in accordance with 10 CFR Part 2, “Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders,” and 10 CFR Part 52 that is acceptable for docketing. The Docket Numbers established for Units 3 and 4 are 52-034 and 52-035, respectively.

The NRC staff will perform a detailed technical review of the application. Docketing of the application does not preclude the NRC from requesting additional information from the applicant as the review proceeds, nor does it predict whether the Commission will grant or deny the application.

The Commission will conduct a hearing in accordance with Subpart L, “Informal Hearing Procedures for NRC Adjudications,” of 10 CFR Part 2. The notice of hearing and opportunity to petition for leave to intervene will be published at a later date in the Federal Register. The Commission will receive a report on the COL application from the Advisory Committee on Reactor Safeguards in accordance with 10 CFR 52.87, “Referral to the Advisory Committee on Reactor Safeguards (ACRS).” If the Commission finds that the COL application meets the applicable standards of the Atomic Energy Act and the Commission’s regulations and that required notifications to other agencies and bodies have been made, the Commission will issue a COL. The COL will contain conditions and limitations that the Commission finds appropriate and necessary.

In accordance with 10 CFR Part 51, the Commission will also prepare an environmental impact statement for the proposed action. Pursuant to 10 CFR 51.26, and as part of the environmental scoping process, the staff intends to hold a public scoping meeting. Detailed information regarding this meeting will be included in a future *Federal Register* notice.

Documents may be examined, and/or copied for a fee, at the NRC’s Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, and will be accessible electronically through the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room link at the NRC Web site http://www.nrc.gov/reading-rm/adams.html. The application is also available

at http://www.nrc.gov/reactors/new-reactors/col/comanche-peak.html. Persons who do not have access to ADAMS or who encounter problems in accessing documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737, or via e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland this 2nd day of December, 2008.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Stephen Raul Monarque, Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

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