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**UNITED STATES**
**NUCLEAR REGULATORY COMMISSION**
**WASHINGTON, D.C. 20555-0001**

November 5, 2013

Mr. Rafael Flores
Senior Vice President and
Chief Nuclear Officer
Attention: Regulatory Affairs
Luminant Generation Company LLC
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL INFORMATION REGARDING REVISION TO TECHNICAL SPECIFICATIONS 3.7.16, "FUEL STORAGE POOL BORON CONCENTRATION," 3.7.17, "SPENT FUEL ASSEMBLY STORAGE," 4.3, "FUEL STORAGE," AND "5.5, "PROGRAMS AND MANUALS" (TAC NOS. MF1365 AND MF1366)

Dear Mr. Flores:

By letter dated March 28, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML130950023), as supplemented by letter dated July 16, 2013 (ADAMS Accession No. ML13205A056), Luminant Generation Company LLC (the licensee) submitted a license amendment request for revision to the Facility Operating License Nos. NPF-87 and NPF-89 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, respectively. The amendment also seeks revision of the CPNPP, Units 1 and 2, Technical Specifications based on an updated criticality analysis methodology for the spent fuel pool.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in your application and determined that additional information is required in order to complete its review. A draft copy of the enclosed request for additional information (RAI) was provided to Mr. Jimmy Seawright of your staff via e-mail on October 9, 2013. He informed the NRC on October 22, 2013, that a conference call to discuss the RAIs is not needed and agreed to provide the RAI responses within 30 days from the date of this letter. Enclosure 1 to this letter is the proprietary version of the RAIs and Enclosure 2 is a non-proprietary version of the RAIs.

Please note that the NRC staff is developing an additional set of RAIs which will be provided in separate letter.

Enclosure 1 transmitted herewith contains Proprietary information. When separated from Enclosure 1, this document is decontrolled.

If you have any questions, please contact me at 301-415-3016 or balwant.singal@nrc.gov.

Sincerely,

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures:
1. RAI (proprietary)
2. RAI (non-proprietary)

cc w/Encl 2: Distribution via Listserv

ENCLOSURE 2 (NON-PROPRIETARY)

REQUEST FOR ADDITIONAL INFORMATION REGARDING

REVISION TO TECHNICAL SPECIFICATIONS 3.7.16, "FUEL STORAGE POOL BORON CONCENTRATION," 3.7.17, "SPENT FUEL ASSEMBLY STORAGE," 4.3, "FUEL STORAGE," AND "5.5, "PROGRAMS AND MANUALS"

LUMINANT GENERATION COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

REQUEST FOR ADDITIONAL INFORMATION REGARDING

REVISION TO TECHNICAL SPECIFICATIONS 3.7.16, "FUEL STORAGE POOL BORON CONCENTRATION," 3.7.17, "SPENT FUEL ASSEMBLY STORAGE," 4.3, "FUEL STORAGE," AND "5.5, "PROGRAMS AND MANUALS"

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COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

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The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in your application and determined that the following additional information is required in order to complete its review.

1. In Enclosure 1 to TXX-13045, Section 4, it states that "CPNPP will establish a Boral coupon surveillance program." The NRC staff would like clarification of this statement including:

   a. Please discuss when the program will be established and implemented.

   b. Please discuss whether there are any other previous surveillance results and, if so, provide a summary of them.

2. As part of the criticality analysis, WCAP-17728-P, blisters were evaluated. The WCAP states that at a [[ ]] the racks would maintain their functionality. The NRC staff has also reviewed the Boral coupon surveillance program and the monitoring program for the blisters is not apparent. Please discuss whether the program will monitor blisters and trend any blister formation or increase in blister size. Also, if they are being monitored, please discuss the acceptance criteria for the height of the blisters.

3. In proposed TS 5.5.22 (in Attachment 2 to TXX-13045 on page 18/18 and Attachment 4 to TXX-13045 on page 17/18), the thickness criteria for the Boral coupons is: "An increase in thickness at any point is greater than 25% of the initial thickness at that point." The NRC staff would like clarification of this statement including:

a. Please discuss whether the initial coupon thicknesses are at least 25 percent less than the thickness listed in the criticality analysis.

b. Please define what is meant by thickness. Does this include the thickness/height of the blister?

c. Please justify why the 25 percent increase in thickness is acceptable.

4. In Enclosure 1 to TXX-13045, Section 4, there is discussion about having enough coupons to cover the current operating license and license renewal. The spent fuel pool, however, will be inservice beyond the operating license and be used when the reactor is defueled. In this case, the spent fuel pool, and thereby the Boral, will still be inservice past the operating and license renewal period. Please discuss whether there will be enough coupons to monitor the Boral until the end of the spent fuel pool life (when the spent fuel pool is permanently defueled).

5. Please discuss whether the racks and coupons are vented. If so, discuss whether the coupon vents are representative of the rack vents.

6. In Attachment 3 to TXX-13045 on page 9/18, the proposed TS bases, B 3.7.16, Background, states "The neutron absorber material Boral is credited for the storage of spent fuel assemblies within Region 1 racks to maintain $K_{eff}$ less than or equal to 1.0 at 0 ppm [parts per million] soluble boron concentration." The NRC staff needs clarification on this statement including:

a. Please discuss whether or not the Boral material is credited in the borated case. This information is not mentioned in the background.

b. Please clarify why it is necessary to "maintain $K_{eff}$ less than or equal to 1.0" when the regulations state that $K_{eff}$ in the non-borated case should be less than 1.0. There is no provision for $K_{eff}$ to be equal to 1.0.

7. Please confirm that in Attachment 6 to TXX-13045 on page 8/8 in Table 9.1-4 that the second and third column title should be U1 Discharged and U2 Discharged, respectively.

8. Please confirm that on [[
]].

9. Please confirm that [[ ]] is the nominal areal density and that [[ ]] is the minimum certified areal density.

If you have any questions, please contact me at 301-415-3016 or balwant.singal@nrc.gov.

Sincerely,

***/RA/***

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures:
1. RAI (proprietary)
2. RAI (non-proprietary)

cc w/Encl 2: Distribution via Listserv

DISTRIBUTION:
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**ADAMS Accession Nos.:** Proprietary ML13297A162; Non-Proprietary ML13301A645

| OFFICE | NRR/DORL/LPL4/PM | NRR/DORL/LPL4/PM | NRR/DORL/LPL4/LA |
|---|---|---|---|
| NAME | MBartlett | BSingal | JBurkhardt |
| DATE | 10/30/13 | 10/31/13 | 10/29/13 |
| OFFICE | NRR/DE/ESGB/BC | NRR/DORL/LPL4/BC | NRR/DORL/LPL4/PM |
| NAME | GKulesa* | MMarkley | BSingal |
| DATE | 10/9/13 | 11/5/13 | 11/5/13 |

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