December 27, 2007

Mr. M. R. Blevins
Senior Vice President
& Chief Nuclear Officer
Luminant Power
ATTN: Regulatory Affairs
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 – APPROVAL OF EXTENSION REQUEST FOR CORRECTIVE ACTIONS RE: GENERIC LETTER 2004-02, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED WATER REACTORS" (TAC NOS. MC4676 AND MC4677)

Dear Mr. Blevins:

By letter dated December 3, 2007, Luminant Generation Company LLC (the licensee), submitted a request for extension of the Comanche Peak Steam Electric Station (CPSES), Units 1 and 2 sump clogging corrective actions due date of December 31, 2007, stated in Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors."

The licensee has stated that the schedule for chemical testing for support of resolution of GL 2004-02 has been extended from December 2007 into the first quarter of 2008. Therefore, it is necessary for CPSES, Units 1 and 2 to request for extension.

The Nuclear Regulatory Commission (NRC) staff has reviewed the information provided and determined that it is acceptable to extend the due date for completion of corrective actions for GL 2004-02. The NRC evaluation supporting acceptance of your request is enclosed.

If you have any questions regarding this matter, please contact me at (301) 415-3016.

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

Enclosure:
NRC Evaluation Supporting Acceptance of the Extension Request

cc w/encl: See next page

If you have any questions regarding this matter, please contact me at (301) 415-3016.

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

Enclosure:
NRC Evaluation Supporting Acceptance of the Extension Request

cc w/encl: See next page

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**ADAMS Accession Nos.: ML073600874** **Memo to Tom Hiltz dated 12/21/07**

| OFFICE | NRR/LPL4/PM | NRR/LPL4/LA | DSS/SSIB/BC | NRR/LPL4/BC |
|---|---|---|---|---|
| NAME | BSingal | JBurkhardt, SLL for | MScott* | THiltz, ECM for |
| DATE | 12/27/07 | 12/27/07 | 12/21/07 | 12/27/07 |

**OFFICIAL AGENCY RECORD**

Comanche Peak Steam Electric Station

cc:

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**Comment [COMMENT1]:** Mr. M. R. Blevins
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COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

GENERIC SAFETY ISSUE (GSI)-191/GENERIC LETTER 2004-02

EXTENSION REQUEST

In a letter dated December 3, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML073450888), Luminant Generation Company LLC (previously TXU Generation Company LP, the licensee) requested an extension to the corrective action due date of December 31, 2007, stated in Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," for the Comanche Peak Steam Electric Station (CPSES), Units 1 and 2.

The licensee stated that it has taken actions, as described in their letters dated March 7, 2005 (ADAMS Accession No. ML050740365), and September 1, 2005 (ADAMS Accession No. ML052550052), toward accomplishing the corrective actions described in GL 2004-02, including replacing the sump screens with substantially larger sump strainers during the CPSES, Unit 1 spring 2007 refueling outage and the CPSES, Unit 2 fall 2006 refueling outage. The licensee is continuing the evaluation of the adequacy of the replacement strainers for CPSES, Units 1 and 2.

However, the licensee has recently determined that the schedule for chemical testing for support of resolution of GL 2004-02 will be extended from December 2007 into the first quarter of 2008. Therefore, it is necessary for CPSES, Units 1 and 2 to request an extension from the NRC.

The criteria for granting an extension to the due date of December 31, 2007, for completion of GL 2004-02 corrective actions are stated in Secretary of the Commission, Office of the NRC (SECY) paper SECY-06-0078. Specifically, an extension may be granted if:

- the licensee has a plant-specific technical/experimental plan with milestones and schedule to address outstanding technical issues with enough margin to account for uncertainties, and

- the licensee identifies mitigative measures to be put in place prior to December 31, 2007, and adequately describes how these mitigative measures will minimize the risk of degraded emergency core cooling system (ECCS) and containment spray system (CSS) functions during the extension period.

With regard to the first extension criterion, the licensee has a plant-specific technical/experimental plan, with milestones and schedules, to complete the GL 2004-02 corrective actions and modifications. Specifically, the licensee has stated that it will accomplish the following actions:

1. Completion of various downstream effects analyses are scheduled for January and February 2008.

Enclosure

2. Conduct of additional plant-specific tests that support assumptions and corresponding conclusions contained in the GL 2004-02 evaluations for CPSES, Units 1 and 2, which are planned to begin in March 2008. The licensee is pursuing testing via the Performance Contracting Inc. Sure Flow Strainer User's Group.

3. Verification of design inputs, assumptions and conclusions of calculations and evaluations conducted in response to issues identified in GL 2004-02 will be performed following receipt of the final test report from the vendor. These activities include assessing the impact of the test results on strainer net positive suction head calculations, strainer bypass sampling impact on downstream effects analyses (in-vessel and ex-vessel), as well as potential impact on other GL 2004-02 corrective action evaluations. These activities also include compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix B requirements for design control, document control, and quality assurance records.

With regard to the second extension criterion, the licensee has stated that the following modifications, mitigative measures, compensatory measures, and/or favorable conditions are in effect at CPSES, Units 1 and 2, minimizing the risk of degraded ECCS and CSS functions during the extension period:

1. Plant hardware modifications, developed in response to issues identified in GL 2004-02, as described in the licensee's letter to the NRC dated March 7, 2005, were installed in CPSES, Units 1 and 2 with the purpose of actively supporting compliance with the regulatory requirements for long-term cooling following a design basis loss-of-coolant accident. Hardware modifications include the following.

    a. ECCS sumps screens were replaced with new strainers increasing the effective surface area from 200 square feet to almost 4000 square feet per emergency sump. The new strainers are contained within a one-foot tall solid debris interceptor, which is intended to significantly reduce the quantity of debris that could reach the strainers. Modifications which divert water and debris from entering the recirculation pool near the strainers will be completed by December 31, 2007.

    b. The refueling water storage tank (RWST) low-low setpoint and the RWST switchover procedure were revised to support the strainers. The RWST to containment spray isolation valves were replaced to reduce closing time for switchover from injection to recirculation. Control board instruments and controls and alarms were modified to support the setpoint change and enhance the operator interface for ECCS and spray switchover.

    c. Various modifications were made to reduce recirculation water holdup volumes and to ensure that blockage would not occur in critical areas such as the refueling cavity. These modifications, in combination with the RWST changes described above, increase the minimum post-accident flood levels from 4 feet to over 5 feet resulting in a corresponding increase in net positive suction head margin.

2. CPSES, Units 1 and 2 plant administrative procedures and processes were implemented to support the GL 2004-02 hardware modifications and revised operating practices.

3. Interim compensatory measures are being implemented at CPSES, Units 1 and 2 in accordance with NRC Bulletin 2003-01, as described in the licensee's letter dated August 8, 2003. These measures remain in effect to minimize interim risks associated with post-accident debris blockage while GL 2004-02 evaluations are being completed.

   In accordance with NRC Bulletin 2003-01, these measures will remain in place at a minimum until all evaluations and corrective actions for GL 2004-02 are complete.

The NRC believes that the licensee has reasonable plans for CPSES, Units 1 and 2 that should result in the installation of final GSI-191 modifications that provide acceptable strainer function with adequate margin for uncertainties. Further, the NRC has concluded that the licensee has put mitigation measures in place at CPSES, Units 1 and 2 to adequately reduce risk for the requested approximately 6-month extension period.

The licensee's letter requested an extension of the due date for completion of remaining corrective actions for GL 2004-02 to June 30, 2008. During a phone conference on December 19, 2007, licensee personnel stated that they are very confident that no additional modifications will be required after completion of testing and evaluation. The licensee stated that CPSES, Units 1 and 2 are considered a low fibrous load plant, as described in a letter dated September 1, 2005. This factor is considered favorable with regard to strainer head loss. The licensee also stated that CPSES, Units 1 and 2 also have contingency plans to reduce the amount of sodium hydroxide in the containment, which will reduce precipitates, if required. The licensee stated that this modification could be performed while the units are online.

Based on the licensee's having satisfactorily addressed the applicable NRC criteria as discussed above, it is acceptable to extend the completion date for certain corrective actions for the issues discussed in GL 2004-02 (specifically, the tests, analyses, and documentation listed above) until June 30, 2008, for CPSES, Units 1 and 2. While the NRC accepts this date as reasonable allowance for contingencies regarding completion of remaining activities to address GL 2004-02, the NRC expects the licensee to place a high priority on completing remaining actions and updating the CPSES, Units 1 and 2 licensing bases as soon as possible.