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Ref. # GL 2004-02

June 19, 2008

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION
DOCKET NOS. 50-445 AND 50-446
SUPPLEMENT TO RESPONSE TO NRC GENERIC LETTER (GL) 2004-02, "POTENTIAL
IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING
DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS"

- REFERENCE:**
1. Letter Logged TXX-05047 from M. Blevins to the NRC dated March 7, 2005, providing a 90-day response to NRC Generic Letter 2004-02. (ML050740365)
 2. Letter Logged TXX-05162 from M. Blevins to the NRC dated September 1, 2005, providing a response to requested information part 2 of NRC Generic Letter 2004-02. (ML052550052)
 3. Letter dated November 8, 2007, from William H. Ruland, Director, Division of Safety Systems, Office of Nuclear Reactor Regulation to Mr. Anthony R. Pietrangelo, Nuclear Energy Institute (NEI) regarding, Plant-Specific requests for extension of time to complete one or more corrective actions for Generic Letter (GL) 2004-02. (ML073060581)
 4. Letter Logged TXX-03130 from C. L. Terry to the NRC dated August 8, 2003, providing a response to NRC BULLETIN 2003-01. (ML032270437)
 5. Letter Logged TXX-07164 from M. Blevins to the NRC dated December 3, 2007, providing a supplemental response to NRC Generic Letter (GL) 2004-02. (ML073450888)

Dear Sir or Madam:

Luminant Generation Company LLC (Luminant Power) has recently determined that the schedule for completion of corrective actions in support of resolution of Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2004-02 has been extended from June 2008 to August 2008. Therefore, it is necessary for Comanche Peak Steam Electric Station, herein referred to as Comanche Peak Nuclear Power Plant (CPNPP), to request an extension from the NRC.

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Luminant Power has successfully completed testing at a special test facility at Alden Labs. The tests were performed based on an established test protocol with input from the NRC staff. There have been a number of delays in completion of the test report and subsequent analysis due to the number of tests being performed for Licensees and competing resources for completion. Luminant Power was present during testing for Comanche Peak performed in March 2008 and observed that adequate net positive suction head (NPSH) margin was maintained for all tested configurations. In addition, the testing confirmed the effectiveness of the new design and its resistance to blockage from miscellaneous debris and labels. The design basis debris load did not result in a thin bed condition. The increase in head loss due to chemical effects was minimal. Bypass testing was also performed which is being evaluated in the downstream effects analysis. Therefore, corrective actions are substantially complete.

However, because of the delays in completing the test report and subsequent analysis, Luminant Power requests an extension for completion of corrective actions associated with GL 2004-02 until August 31, 2008.

The reanalysis of the new strainer design to account for design modifications and plant specific refinements was completed in February 2008.

Comanche Peak has the following plant-specific technical/experimental plan with milestones and schedule to address outstanding technical issues with enough margin to account for uncertainties:

- Completion of revisions to the various downstream effects analyses are scheduled for July 2008.
- Additional plant-specific tests that support assumptions and corresponding conclusions contained in the GL 2004-02 evaluations for CPNPP were completed in March 2008. Although the actual test runs at the vendor testing facility were completed in March, numerous additional actions are required prior to the vendor completing a final test report that meets the procurement specifications requirements, including those of 10 CFR 50, Appendix B for control of purchased services and procurement document control. These actions are expected to be completed in July 2008.
- Following receipt of the final test report from the vendor, additional actions are also required to complete formal verification of design inputs, assumptions and conclusions of calculations and evaluations conducted in response to issues identified in GL 2004-02. These activities include finalizing the assessment of the impact of the test results on strainer NPSH calculations, strainer bypass sampling input to downstream effects analyses (in-vessel and ex-vessel), as well as potential impact on other Generic Letter 2004-02 corrective action evaluations. These activities also include compliance with 10 CFR 50, Appendix B requirements for design control, document control, procedures and quality assurance records. These actions will be completed in August 2008.

The following measures have been in place since December 31, 2007 and will remain in place as part of the completion of GL 2004-02 corrective actions:

- Plant hardware modifications, developed in response to issues identified in GL 2004-02 (as described in Reference 1), are installed in CPNPP and are actively supporting compliance with the regulatory requirements for long term cooling following a design basis loss of coolant accident. Hardware modifications include the following:

- Emergency Core Cooling System (ECCS) sump 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 will significantly reduce the quantity of debris which could reach the strainers. Modifications which divert water and debris from entering the recirculation pool near the strainers are complete. The design approach is to maximize the capability of the strainer while minimizing the debris load.
- The Refueling Water Storage Tank (RWST) low-low setpoint and the RWST switchover procedure were revised to support the new strainers. The Refueling Water Storage Tank to Containment Spray Isolation valves were replaced to reduce closing time for switchover from injection to recirculation. Control board instruments and controls and alarm were modified to support the setpoint change and enhance the operator interface for ECCS and spray switchover.
- Various modifications were made to reduce recirculation water holdup volumes and to assure that blockage would not occur in critical areas such as the refueling cavity. These modifications, in combination with the RWST changes above, increase the minimum post accident flood levels from 4 feet to over 5 feet resulting in a corresponding increase in NPSH margin.
- Implementation is complete for CPNPP plant administrative procedures and processes to support the GL 2004-02 hardware modifications and revised operating practices.

In addition, the interim compensatory measures implemented at CPNPP in accordance with NRC Bulletin 2003-01, as described in Reference 4, 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.

This letter contains two revised licensing commitments regarding CPNPP Units 1 and 2.

Description of Commitment

27330
(revised)

In response to the request for information in Part 1 of Generic Letter 2004-02, CPNPP has substantially completed an analysis of the susceptibility of the ECCS and CSS recirculation functions for CPNPP Units 1 and 2. The methodology used will conform to the intent of NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology." The analyses when fully completed will provide the basis to show compliance with the applicable regulatory requirements including 10 CFR 50.46 and 10 CFR 50 Appendix A, General Design Criteria 35 and 38. *The final analysis is scheduled to be completed by August 31, 2008.*

27369
(revised)

The Emergency Core Cooling System (ECCS) and Containment Spray System (CSS) recirculation functions under debris loading conditions at Comanche Peak Nuclear Power Plant (CPNPP) Units 1 and 2 will be in compliance with the regulatory requirements listed in the Applicable Regulatory Requirements section of Generic Letter 2004-02 [Ref. 1] by *August 31, 2008.*

Should you have any questions, please contact Mr. J. D. Seawright at (254) 897-0140.

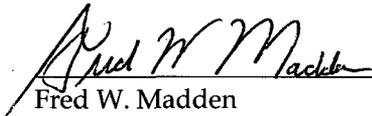
I state under penalty of perjury that the foregoing is true and correct.

Executed on June 19, 2008.

Sincerely,

Luminant Generation Company LLC

Mike Blevins

By: 
Fred W. Madden
Director, Oversight & Regulatory Affairs

c - E. E. Collins, Region IV
B. K. Singal, NRR
Resident Inspectors, Comanche Peak