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Ref: #10CFR50.54(f)

CPSES-200500464
Log # TXX-05047

March 7, 2005

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

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

Gentlemen:

The US Nuclear Regulatory Commission (NRC) issued Generic Letter 2004-02 on September 13, 2004 to 1) request that addressees perform an evaluation of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions in light of the information provided in the generic letter and, if appropriate, take additional actions to ensure system function, and 2) require addressees to provide the NRC a written response in accordance with 10 CFR 50.54(f). Additionally the NRC requested that addressees submit information specified in the generic letter to the NRC. The request was based on identified potential susceptibility of the pressurized water reactor (PWR) recirculation sump screens to debris blockage during design basis accidents requiring recirculation operation of ECCS or CSS and on the potential for additional adverse effects due to debris blockage of flowpaths necessary for ECCS and CSS recirculation and containment drainage.

TXU Power is providing a response to the information that was requested to be submitted within 90 days of the date of the safety evaluation report (SER)

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providing the guidance for performing the requested evaluation. TXU Power is providing information regarding planned actions and schedules to complete the requested evaluation. The Attachment to this letter contains the response for information requested to be submitted within 90 days of the date of the SER. This information is being provided in accordance with 10 CFR 50.54(f).

This letter contains four new licensing basis commitments regarding CPSES Units 1 and 2.

Description of Commitment

- 27330 In response to the request for information in Part 1 of Generic Letter 2004-02, CPSES has initiated an analysis of the susceptibility of the ECCS and CSS recirculation functions for CPSES 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 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 report is scheduled to be completed in time to support our response to item 2 of the Generic Letter requested information not later than September 1, 2005.
- 27331 Exceptions or refinements to the guidance given in NEI 04-07, should they be taken, will be identified and a basis for them documented in the September 1, 2005 submittal to the NRC.
- 27332 The submittal will also include any License Amendment requests, a description of the proposed FSAR changes to revise the Licensing Basis, and a description of the plant and programs as they will be after programmatic changes and plant modifications are implemented to comply with GL 2004-02.
- 27333 Containment walk downs for CPSES Unit 2 to support the analysis of sump performance as identified in the Generic Letter are planned during the 2RF08 outage scheduled for this spring. The walk downs will be performed using guidance provided in NEI 02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1. In addition, the walk down will include sampling for latent debris (dust and lint) considering guidance in NEI 04-07 Volume 2 (i.e., the NRC SER).

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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 March 7, 2005.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC
Its General Partner

Mike Blevins

By: 
Rafael Flores
Vice President, Nuclear Operations

JDS
Attachment

c - B. S. Mallett, Region IV
W. D. Johnson, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES

**Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation
during Design Basis Accidents at Pressurized-Water Reactors
90-Day Response**

NRC Requested Information 1

Within 90 days of the date of the safety evaluation report providing the guidance for performing the requested evaluation, addressees are requested to provide information regarding their planned actions and schedule to complete the requested evaluation. The information should include the following:

NRC Requested Information 1(a):

[Provide] A description of the methodology that is used or will be used to analyze the susceptibility of the ECCS and CSS recirculation functions for your reactor to the adverse effects identified in this generic letter of post-accident debris blockage and operation with debris-laden fluids identified in this generic letter. Provide the completion date of the analysis that will be performed.

TXU Power Response 1(a):

In response to the request for information in Part 1 of Generic Letter 2004-02, CPSES has initiated an analysis of the susceptibility of the ECCS and CSS recirculation functions for CPSES Units 1 and 2. This work will provide plant specific evaluations of debris generation, water and debris transport to the ECCS and CSS recirculation sump screens, the head loss associated with debris accumulation, and its associated effect on available net positive suction head. The downstream effect of debris that passes through the screens on components in the ECCS flow path such as pumps, valves, orifices, spray nozzles, and core components will also be evaluated. The structural capability of the sump screens under debris loadings will also be evaluated. The methodology used will conform to the intent of NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology."

The guidance of Regulatory Guide 1.82, Revision 3, "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident" will also be considered.

The NRC has pre-approved the methodology for meeting Generic Letter 2004-02 using the guidance of Nuclear Energy Institute (NEI) document titled "*Pressurized-Water Reactor (PWR) Sump Performance Methodology*," dated May 28, 2004 as approved and supplemented by the NRC in an SER dated December 6, 2004. The sump performance methodology and the associated NRC SER have been issued collectively as NEI Report NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology," Revision 0, dated December 2004. The methodology will employ plant specific refinements, as allowed by the NRC SER.

Additional data and methodology from ongoing research on specific issues such as downstream effects, chemical effects, and coatings will also be used to the extent possible given the Generic Letter schedule.

The methodology will be supplemented with plant specific design and licensing basis information and contractor specific proprietary information and data as appropriate with the current state of knowledge.

The Current Licensing Basis for CPSES, as well as plant-specific features, may result in exceptions and/or interpretations being taken to the guidance given in RG 1.82 and NEI 04-07 as modified by the SER. As requested at the NRC public meeting on January 27, 2005, a list of known potential exceptions is included below. If any additional exceptions are identified during the performance of the analyses, supplementary letters to this response will be submitted to the NRC as soon as practical.

Exceptions or refinements to the guidance given in NEI 04-07, should they be taken, will be identified and a basis for them documented in the September 1, 2005 submittal to the NRC. It is our understanding that the NRC will review these exceptions as part of the closure of GSI-191 and provide a written response to the Licensees.

The analyses when 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 report is scheduled to be completed in time to support our response to item 2 of the Generic Letter requested information not later than September 1, 2005.

The submittal will also include any License Amendment requests, a description of the proposed FSAR changes to revise the Licensing Basis, and a description of the plant and programs as they will be after programmatic changes and plant modifications are implemented to comply with GL 2004-02. Potential associated changes to the Current Licensing Basis and to the Technical Specifications are addressed below.

NRC Requested Information 1(b):

[Provide] A statement of whether you plan to perform a containment walk down surveillance in support of the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of debris blockage identified in this generic letter. Provide justification if no containment walk down surveillance will be performed. If a containment walk down surveillance will be performed, state the planned methodology to be used and the planned completion date.

TXU Power Response 1(b):

Containment walk downs have been completed for CPSES Unit 1 to support the analysis of sump performance as identified in the Generic Letter. The walk downs were performed using the guidelines provided in NEI 02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1.

Containment walk downs for CPSES Unit 2 to support the analysis of sump performance as identified in the Generic Letter are planned during the 2RF08 outage scheduled for this spring. The walk downs will be performed using guidance provided in NEI 02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1. In addition, the walk down will include sampling for latent debris (dust and lint) considering guidance in NEI 04-07 Volume 2 (i.e., the NRC SER). See the potential plant specific exceptions to NEI 04-07 (Volume 2), below.

Potential Plant Specific Exceptions to NEI 04-07 (Volume 2):

Pipe Break Characterization – CPSES is considering an exception to the NRC position in the SER that secondary pipe breaks must be evaluated using the same methodology as LOCA. Because 10CFR50.46 does not apply to secondary pipe breaks, the NRC's backfit assessment for pipe break characterization that excludes the use of GDC-4 methodology for LOCA does not apply. In addition, RG 1.82 Revision 3 states in Section 1.3.2 Debris Sources and Generation – "Some PWRs may need recirculation from the sump for licensing basis events other than LOCAs. Therefore, licensees should evaluate the licensing basis and include potential break locations in the main steam and main feedwater lines as well in determining the most limiting conditions for sump operation." The current CPSES Licensing Basis for secondary pipe break locations and characteristics for the evaluation of sump performance is based on GDC-4 and BTP MEB 3-1. Since the NRC's SER constitutes a backfit for which no backfit analysis has been performed, CPSES reserves the right to take exception.

Latent Debris Sampling – Although CPSES Unit 1 and 2 are predominantly reflective metallic insulation (RMI) plants, the statistical sample mass collections (i.e., three samples from each category of surface) will not be used. The loadings of latent debris have been observed to be both light and uniform in CPSES Unit 1. Many areas and surfaces cannot be reached for sampling without scaffolding or adding special provisions for fall protection devices. CPSES will use an alternative approach to minimize personnel risk. Representative samples will be taken from accessible surfaces. Visual observations of these sample locations will be compared to visual observations of other surfaces and conservative estimates of bounding debris loadings will be made. The data from Unit 1 and the data from Unit 2 will be used to derive a common latent debris source term for both units.

Potential Associated Changes to the Licensing Basis and Technical Specifications:

Coatings – The Current Licensing Basis for CPSES coatings in the containment is that 100% failure is assumed for sump performance. An assessment of CPSES containment building protective coatings is being conducted in response to GL 2004-02. This assessment and its goals include the following key elements.

1. Assessment for revising the Current Licensing Basis to upgrade containment building protective coatings from “declassified” to “acceptable” status (per ASTM D-5144).
 - Perform suitability for application review of applied protective coatings per ASTM D-5144 – using EPRI “Guideline on Nuclear Safety-Related Coatings” TR-1003102 (formerly TR-109937) for guidance.
 - Assess current protective coatings program using updated industry standards (i.e., ASTM vs. obsolete ANSI standards).
 - Assess current protective coatings program using recommendations of EPRI TR-1003102.
2. Revision of the protective coatings program and FSAR based on the above assessments.

Technical Specifications – A change to TS 3.3.2 Engineered Safety Features Actuation System (ESFAS) Instrumentation, Table 3.3.2-1 is being considered. Lowering the allowable level for the Refueling Water Storage Tank (RWST) Automatic Switchover to Containment Sump will increase the recirculation sump water levels inside containment. This amendment would be based on a change to the procedures for switchover from cold leg injection to cold leg recirculation.