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REF: 10 CFR 50.55a(f)(5)(iii)

CPSES-200501961
Log # TXX-05176

November 15, 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
REVISION TO RELIEF REQUEST P-1 TO THE UNIT 1 AND UNIT 2
INSERVICE TESTING PLAN FOR PUMPS AND VALVES
(ASME OM CODE 1998 EDITION, THROUGH 2000 ADDENDA;
INTERVAL START DATE: AUGUST 3, 2004, SECOND INTERVAL)

REF: TXU Power letter, logged TXX-04199, from Mike Blevins to the U. S. Nuclear Regulatory Commission, dated November 30, 2004.

Gentlemen:

Pursuant to 10 CFR 50.55a(3)(i), TXU Generation Company LP (TXU Power) hereby requests NRC approval of the attached relief request. The relief from ASME OM Code 1998 Edition, through 2000 Addenda, is being requested for the testing of the Safeguards Building Sump Pumps at CPSES.

The details of the 10 CFR 50.55a(f)(5)(iii) request are attached. The relief request submitted per the referenced letter has been revised based on the teleconference with the NRC on July 7, 2005.

A047

This communication contains no new licensing basis commitments regarding CPSES.

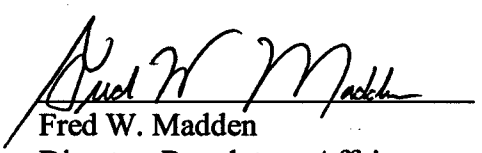
TXU Power requests approval of this relief request by March 31, 2006. The approval date was administratively selected to allow for NRC review. If you have any questions regarding this request, please contact Jack Hicks at (254) 897-6725.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,
Its General Partner

Mike Blevins

By: 
Fred W. Madden
Director, Regulatory Affairs

JCH
Attachment

c - B. S. Mallet, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES

TXU POWER
COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2
ASME SECTION XI INSERVICE TESTING PROGRAM
RELIEF REQUEST P-1

I. ASME System/Component(s) Affected:

System: Vents & Drains

The Vents and Drains system monitors and collects all floor drains, equipment drains, and certain valve leakoffs throughout the plant and directs them to their predetermined destination for waste processing, disposal, or recycling.

Components Affected: Safeguards Building Sump Pumps

The Safeguards Building sump pumps are classified as active pumps and are required to mitigate the consequences of assumed continuous system leakage (1 gpm) and a flange or mechanical seal passive failure (of 50 gpm) from flooding the Engineered Safety Featured (ESF) equipment. In addition, the sump level instrumentation, in combination with pump operation, provides positive indication of ESF system leakage occurring outside containment. There are two pumps per sump and two sumps per unit.

Pump Number:

CP1-WPAPSS-01	CP1-WPAPSS-02
CP1-WPAPSS-03	CP1-WPAPSS-04
CP2-WPAPSS-01	CP2-WPAPSS-02
CP2-WPAPSS-03	CP2-WPAPSS-04

ASME Code Class 3

II. Applicable Code Edition and Addenda:

ASME OM Code 1998 Edition, through 2000 Addenda

III. Applicable Code Requirement:

ASME OM Code 1998 Edition, through 2000 Addenda.

ISTB-5100 (a) Duration of Tests.
For the Group A test and the comprehensive test, after pump conditions are stable as the system permits, each pump shall be run at least two minutes.

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ISTB-5121 Group A Test Procedure.
The test parameters shown in Table ISTB-300-1 shall be determined and recorded as required by this paragraph, including differential pressure.

IV. Reason for Request:

The Safeguards Building Sump Pumps are required to detect and mitigate passive failures in the Emergency Core Cooling System (ECCS) and Containment Spray (CT) System post-LOCA and to prevent flooding of the safety related system.

In the present design there is no recirculation line from the discharge header of the pumps back to the sumps and there are no installed pressure or differential pressure instruments on the pump suction or discharge. This creates some unique problems. Without a recirculation line on each pump discharge, there is only one way to maintain a constant differential pressure across the pump as required by ASME OM Code 1998 Edition, through 2000 Addenda, Subsection ISTB-5121, Group A Test Procedure. That way is to dead-head the pump, setting the reference flow at 0 gpm, and calculating the differential. The differential pressure is determined by making elevation corrections to the discharge pressure reading which is read from a gauge installed in the available system vent connection. This vent connection is remotely located in a different room on a different floor elevation than the sump pumps. In addition to the fixed elevation corrections for the gauge location relative to the safeguard sump cover, an elevation is measured between the sump cover and the water surface within the sump and used to determine the final differential pressure. This procedure takes four test personnel to conduct the test in this manner. This test has proven to be very difficult and operating experience (OE) and equipment history show that testing the pumps in a dead-head condition can cause equipment reliability concerns.

CPSES Inservice Testing Program is an approved Risk-Informed Inservice Testing (RI-IST) Program as described in the Safety Evaluation Report (TAC NOS. M94165, M94166, MA1972, and MA1973). There could be safety enhancements obtained by focusing resources on High Safety Significant Components (HSSCs). Extensive testing on Low Safety Significant Components (LSSCs) could have an adverse effect on safety. Reduction of testing should reduce component wear-out, operator burden, system unavailability, cost of testing, and radiation exposure. Reduced testing could also achieve a more optimum balance between the positive impacts of testing and the negative effects of disturbing equipment from service and entering a less than optimum plant configuration, such as valve misalignments. The CPSES Safeguards Building Sump Pumps have a low risk ranking and are tested every six years on a staggered test basis, such that at least two pumps are tested every 18 months.

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To meet the operational readiness requirements for these pumps, a test should require that the pump start on the proper level switch actuation, determine that the pump is capable of delivering a minimum of 50 gpm to the Waste Holdup Tank, and that velocity-based vibration readings are satisfactory. Differential pressure is not needed to show adequate pump performance. Differential pressure measurement creates additional radiation exposure to personnel (ALARA) and potential equipment damage due to dead-heading the pump. Pumping 50 gpm or more to the Waste Holdup Tank demonstrates that an adequate head was developed to overcome system resistance and greater confidence exists that the ASME OM Code requirements for operational readiness have been met.

These pumps alert the operator of potential leakage in the Safeguards Building and mitigate the consequences of the leakage. To meet the testing requirements of ASME OM Code, Subsection ISTB, the pumps must be dead-headed for extended periods.

With the adoption of the 1989 ASME Boiler & Pressure Vessel Code Section XI (which endorsed the OM Part 6 & 10) and continuing in later Code editions, predictive maintenance techniques fundamentally changed. Prior to this edition of the Code, hydraulic performance (pressure, differential pressure, and flow) was the primary tool for detecting pump performance degradation. Currently, velocity-based vibration has proven to be much more sensitive to detecting degradation.

V. <u>Proposed Alternative and Basis for Use</u>:

For the purpose of accomplishing Safeguards Building Sump Pump testing, the following requirements will apply:

> The pumps shall be tested in accordance with ISTB-5121 and ISTB-5123 with the exception of waiting at least 2 minutes of pump run time for conditions to stabilize prior to recording test parameters (see ISTB-5100 (a) Duration of Tests) and the recording of differential pressure. The sump will be pumped down rapidly by one pump, and suction pressure will vary as sump level changes; therefore, the purpose of the stabilization time and differential pressure is not applicable in this case.

Setting one hydraulic parameter (flow or differential pressure) at a reference point and measuring the other now serves to set the pump to a consistent "reference point" on the pump curve so that vibration data can be comparable from test to test. The same reference point and baseline can be achieved by filling up the sump to the same approximate level and pumping it to the same destination each time. There is a limited volume of water in the sump. The time to pump down the sump until the pump

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automatically secures is approximately 50 seconds providing ample time to collect vibration data. Flow and vibration readings would be just as consistent (valid) as setting a reference differential pressure and recording the data. This is done in less time, generating less waste, using less personnel and obtaining test data without dead-heading the pump. This test and flowpath is currently used (in addition to the pump dead head) in order to perform the open and close tests of the pump discharge check valves.

A baseline reference will be established for flow and vibration; Alert and Required Action Limits will be set and maintained as specified by ASME OM Code ISTB, 1998 Edition, through 2000 Addenda. This alternative provides an acceptable level of quality and safety.

VI. Duration of Proposed Alternative:

CPSES Unit 1 and Unit 2 Inservice Testing Plan For Pumps And Valves, Second Interval.