



TXU Energy
Comanche Peak Steam
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Mike Blevins
Senior Vice President & Principal Nuclear Officer

Ref: 10 CFR 50.55a(3)(i)

CPSES-200302710
Log # TXX-03199

January 2, 2004

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;
RELIEF REQUEST B-4 FOR THE SECOND 10 YEAR ISI
INTERVAL FOR UNIT 1 AND B-15 FOR THE FIRST
10 YEAR ISI INTERVAL FOR UNIT 2 FROM 10 CFR 50.55a FOR
THE PURPOSE OF INVOKING CODE CASE N-566-2,
"CORRECTIVE ACTION FOR LEAKAGE AT BOLTED
CONNECTIONS, SECTION XI, DIVISION 1."
(UNIT 1 SECOND INTERVAL START DATE AUGUST 2000
UNIT 2 FIRST INTERVAL END DATE: AUGUST 2004)

Pursuant to 10CFR50.55a(3)(i), TXU Generation Company LP (TXU Energy) hereby requests NRC approval of the attached relief request. The relief from the ASME Code is being requested for the second interval of the inservice inspection program for Unit 1 and the first interval for Unit 2. The details of the 10CFR 50.55a request are attached.

TXU Energy requests that the NRC authorize the use of ASME Code Case N-566-2, "Corrective Action for Leakage at Bolted Connections, Section XI, Division 1," as an alternative to certain requirements of IWA-5250(a)(2) for the evaluation and corrective actions associated with leaking ASME Class 1, 2, and 3 bolted connections.

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This communication contains no new licensing basis commitments regarding CPSES.

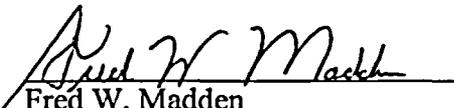
TXU Energy requests approval of this relief request by March 26, 2004. The approval date was selected to allow use of this relief request during the tenth refueling outage for Unit 1, scheduled to start late March 2004. If you have any questions regarding this request, please contact Jack Hicks at (254) 897-6725.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,
Its General Partner

Mike Blevins
Senior Vice President and Principal Nuclear Officer

By: 
Fred W. Madden
Nuclear Licensing Manager

JCH/jch
Attachment

c - B. S. Mallet, Region IV
W. D. Johnson, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES
Terry Parks, Chief Inspector, TDLR
J.C. Hair ANII, CPSES

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
SECOND TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-4
AND UNIT 2 FIRST TEN YEAR INTERVAL FOR ISI RELIEF NO. B-15**

PROPOSED USE OF CODE CASE N-566-2

I. ASME System/Component(s) Affected:

Relief is being requested for ASME Code, Section XI, Class 1, 2, and 3 bolted connections.

II. Applicable Code Edition and Addenda:

Comanche Peak Steam Electric Station (CPSES) requests relief from Section XI of the ASME Code, 1986 Edition, No Addenda, sub-paragraph IWA-5250(a)(2). This ASME Code sub-paragraph states that if leakage occurs at a bolted connection, the bolting shall be removed, VT-3 visually examined for corrosion, and evaluated in accordance with IWA-3100.

III. Proposed Subsequent Code Edition and Addenda and Code Case:

Pursuant to 10 CFR 50.55a(a)(3)(i), CPSES is requesting relief from the requirements of the 1989 Edition of the ASME Code, Section XI, sub-paragraph IWA-5250(a)(2). Relief is being requested for the second 10-year ISI interval at CPSES for Unit1 and for the first 10-year ISI interval for Unit 2.

IV. Reason for Request:

Removal of bolts for VT-3 visual examination is not always the most prudent action when leakage is discovered at a bolted connection. Leakage at bolted connections is typically identified during system leakage tests. For Class 1 systems, this leakage test is conducted prior to plant startup following each refueling outage. This test is performed at full operating pressure and temperature. When leakage is discovered during this test, the corrective action (i.e. removal of bolts) must be performed with the system at full temperature and pressure, or the plant must be cooled down. The removal of a bolt at full temperature and pressure conditions can be extremely physically demanding due to the adverse heat environment. Cooling down the plant subjects the plant to additional heat up and cool down cycles, and can add 3-4 days to the duration of the refueling outage.

In addition, bolted connections associated with pumps and valves are typically studs threaded into the body of the component. Removal of these studs is typically very difficult and time consuming due to the length of time they have been installed and are often damaged during the removal process. This difficulty is compounded when the removal must be performed under heat stress conditions.

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PROPOSED USE OF CODE CASE N-566-2

The requirements of IWA-5250(a)(2) must be applied to ASME Code, Section XI, Class 1, 2, and 3 bolted connections regardless of the significance of the leakage or the corrosion resistance of the materials used in the bolted connection. Implementation of Code Case N-566-2 permits factors such as the number and service age of the bolts, the bolting materials, the corrosiveness of the system fluid, the leakage location and system function, leakage history at the connection or at other system components, and visual evidence of corrosion at the bolted connection be used to evaluate the need for corrective measures.

V. Proposed Alternative:

In lieu of the requirements of sub-paragraph IWA-5250(a)(2), TXU Energy proposes to perform an evaluation in accordance with the alternative requirements of ASME Code Case N-566-2 in the event that leakage is found in a Class 1, 2, or 3 bolted connections. These alternative requirements specify that, if leakage is detected at a bolted connection, one of the following requirements shall be met:

- (a) The leakage shall be stopped, and the bolting and component material shall be evaluated for joint integrity as described in (c) below.

- (b) If the leakage is not stopped, the licensee shall evaluate the structural integrity and consequences of continuing operation, and the effect on the system operability of continued leakage. This engineering evaluation shall include the considerations listed in (c) below.

- (c) The evaluation of (a) and (b) above is to determine the susceptibility of the bolting to corrosion and failure. This evaluation shall include the following;
 - (1) the number and service age of the bolts;
 - (2) bolt and component material;
 - (3) corrosiveness of process fluid;
 - (4) leakage location and system function;
 - (5) leakage history at the connection or other system components;
 - (6) visual evidence of corrosion at the assembled connection.

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PROPOSED USE OF CODE CASE N-566-2

VI. Basis of Using the Code Case:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative provides an acceptable level of quality and safety.

TXU Energy requests the use of Code Case N-566-2, *Corrective Action for Leakage at Bolted Connections, Section XI, Division 1* for the CPSES Unit 1 Second Inspection Interval, and for the CPSES Unit 2 First Interval.

If the engineering evaluation that is performed in accordance with paragraphs (a) or (b) of Code Case N-566-2 determines that structural integrity can be assured, given the current conditions, TXU Energy will periodically conduct visual inspections of the leaking connection to verify operating conditions have not changed, such that the engineering evaluation is affected. Subsequent inspections of the bolted connection will be scheduled based on the leakage rate, the effect on systems or components in the vicinity of the leak, the potential degradation rate of the materials involved, and when the component is scheduled to be out of service for maintenance or testing. At any time in this process, if it is determined that structural integrity cannot be shown to exist, the appropriate actions would be taken in accordance with the plant's Technical Specifications.

Additionally, in the event that the relevant condition cannot be accepted for continuing operation using Code Case N-566-2 paragraphs (a) or (b), TXU Energy would correct the condition in accordance with its ASME Section XI Article IWA-4000 Repair/Replacement Activities and its ASME Section XI Repair Program Requirements.

Furthermore, If the equipment that is leaking can be isolated, the equipment will be isolated and Code Case N-566-2 would not be invoked. If the leakage cannot be isolated and the system affected causes entry into a Technical Specification (TS) Action Statement, Code Case N-566-2 would be invoked and a work plan would be developed for removal and inspection of one bolt at a time. At any time in this process if it is determined that structural integrity cannot be shown to exist, the appropriate actions would be taken in accordance with the CPSES Unit 1 and Unit 2 Technical Specifications.

The 1986 Edition of the ASME Code, sub-paragraph IWA-5250(a)(2), requires that if leakage occurs at a bolted connection, all bolts shall be removed from the leaking bolted connection, a VT-3 visual examination must be performed to inspect for corrosion, and the results evaluated in accordance with IWA-3100. The Code requirements provide assurance that bolting corroded by system leakage will be detected and that corrective actions will be taken. However, the Code requirements may be overly conservative since the removal and examination of all bolting may not be necessary to assure continued integrity of a bolted connection. Moreover, corrosion in the joint region may depend on other factors beyond

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PROPOSED USE OF CODE CASE N-566-2

leakage. Thus, in the instances where leakage has been identified at bolted connections, the requirements of Section XI of the ASME Code do not always provide for the most reasonable course of action. Hence, the request to selectively implement alternatives to Code requirements contained in Code Case N-566-2, in lieu of the requirements of IWA-5250(a)(2), the proposed alternative will continue to assure the structural integrity of ASME Class 1, 2, and 3 bolted connections, and that selective implementation of this Code Case will continue to provide an acceptable level of quality and safety.

Granting the proposed alternative will provide an acceptable level of quality and safety, and will not adversely impact the health and safety of the public.

VII. Duration of Proposed Alternative:

This relief is requested for the Comanche Peak Steam Electric Station Unit 1, second 10-year interval, and for Unit 2 first 10-year interval.

VIII. Precedent:

- 1) Hope Creek Generating Station (Reference SER dated June 25, 2003, TAC No. MB7836)