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Ref: 10CFR50.55

CPSES-200601101
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June 22, 2006

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION
DOCKET NO. 50-446, UNIT 2
RELAXATION REQUEST FOR NRC ISSUANCE OF FIRST REVISED ORDER (EA-03-009) ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL HEADS AT PRESSURIZED WATER REACTORS

Gentlemen:

On February 11, 2003, the NRC issued Order EA-03-009 for interim inspection requirements for reactor pressure vessel (RPV) heads at pressurized water reactor (PWR) facilities. On February 20, 2004, the NRC issued the First Revised Order EA-03-009, which superseded Order EA-03-009. Revision 1 of the Order modified the requirements regarding nondestructive examination of the penetration nozzles.

TXU Power provided responses consenting to the Order and Revision 1 of the Order in TXX -03047 "Twenty-Day Response to NRC Order Modifying Licenses (EA-03-009)," dated February 27, 2003, and TXX -04057, "Twenty-Day Response to First Revision of NRC Order Modifying Licenses (EA-03-009)," dated March 10, 2004, respectively.

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The RPV heads for Units 1 & 2 at Comanche Peak (CPSES) both meet the criteria for the "Low" susceptibility category in Section IV.B. The Order requires that RV heads in this category complete a baseline volumetric examination in accordance with the Order before February 11, 2008. Pursuant to this requirement, TXU Power undertook a compliant examination during the Unit 2 eighth refueling outage (Spring 2005). In planning this inspection, the two peripheral penetrations employed for the reactor vessel level instrumentation system (RVLIS) were identified as having unique guide sleeves installed that would require modification in order to inspect the penetration tube. Although the necessary modifications were planned and implementation was attempted, unanticipated obstructions in both guide sleeves prevented implementation. Consequently, 76 of 78 control rod drive mechanism (CRDM) penetrations and the one-inch diameter head vent were successfully examined with no relevant indications but the two RVLIS penetrations were not examined.

Plans and necessary tooling are being developed with the intention of implementing the necessary modifications during the fall 2006 refueling outage (2RF09) and if accomplished, the required examinations will also be completed in full compliance with the deadline established in the Order. However, this schedule is presently uncertain and if successful implementation during 2RF09 cannot be assured, deferral until the March 2008 refueling outage (2RF10) would be recommended. Therefore, this relaxation request is considered a necessary contingency to support thorough planning for a radiation dose-intensive, infrequently performed (unique) activity.

In order to properly prepare for and schedule the necessary outage activities to implement the RVLIS guide sleeve modification and complete the volumetric examination of the remaining two RPV head penetrations, TXU Power may find it necessary to delay full compliance with this requirement of Order EA-03-09 until completion of its Spring 2008 refueling outage beginning in early March 2008. Therefore, as a contingency, TXU Power requests relaxation from the implementation deadline specified in Section IV(C)(3) for the Section IV, Paragraph C.(5)(b) volumetric examination requirement of the CPSES Unit 2 RPV head for the two penetration nozzles not yet examined.

The attachment of this letter provides the relaxation request. As demonstrated in the attachment, the requested relaxation meets item IV.F.(2) of Revision 1 of the Order, as compliance with the Order for the specific areas described in the request would result in hardship or unusual difficulty without a compensating increase in the level of quality or safety.

In order to support final outage scheduling, TXU Power requests timely consideration and approval of this requested relaxation as a contingency to complete the required reactor head examinations by September 30, 2006.

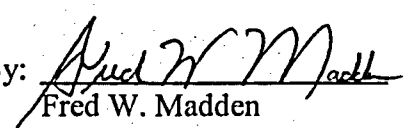
This communication contains no new licensing basis commitments regarding CPSES Units 1 and 2. Should you have any questions, please contact Jack Hicks at (254)897-6725.

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. Mallett, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES

TXU Power
Comanche Peak Steam Electric Station (CPSES), Unit 2
Relaxation Request to NRC Order EA-03-009, Revision 1

RELAXATION REQUEST FROM NRC ORDER EA-03-009 SECTION IV, Paragraph C (3)

1. System/Component for Which Relaxation is Requested

The scope of this relaxation is the two CPSES Unit 2 ASME Class 1 reactor pressure vessel (RPV) head penetrations designated as "RVLIS Penetrations" in Table 1 below. The CPSES Unit 2 Inspection Category, in accordance with Order EA-03-09, Section IV, Paragraph A, is determined to be "low," based on an approximate 2.3 effective degradation years (EDY) at the beginning of the Fall 2006 Unit 2 ninth refueling outage (2RF09). During refueling outage 2RF08 in Spring 2005, all other RPV head penetrations except for the two RVLIS Penetrations were successfully examined in compliance with the requirements of the NRC Order. No indications of PWSCC or other service-induced degradation were detected during the examinations.

Table 1 - Number and Type of Penetrations

Penetration Description	Number in Group	Volumetric Inspection
Control Rod Drive Mechanism - active	57	Completed
Spare Control Rod Drive Mechanism	14	Completed
Instrument Column	5	Completed
RVLIS Penetrations (#63 & #65)	2	Deferred
Head Vent	1	Completed
Total Penetrations	79	

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2. *Applicable Examination Requirements*

The NRC issued Revision 1 of Order EA-03-009 on February 20, 2004, hereafter referred to as the Order, establishing interim inspection requirements for RPV heads of pressurized water reactors. Section IV, Paragraph C (Part 3), applicable to RPV heads in the "Low" susceptibility category, requires completion of a non-visual nondestructive examination (NDE) in accordance with Section IV, Paragraph C(5)(b) prior to February 11, 2008.

3. *Requirement from Which Relaxation is Requested*

Relaxation is requested from Section IV.C.(3) of the Order that requires performance of a non-visual NDE of the RPV head penetrations prior to February 11, 2008.

Specifically, the relaxation requested is to delay completion of the non-visual NDE of the remaining two RPV head penetrations until the Spring 2008 CPSES Unit 2 refueling outage. Inspection of these two penetrations was deferred during the Spring 2005 refueling outage inspection campaign due to unexpected obstructions.

4. *Reason for Request*

TXU Power is requesting relaxation of the initial inspection deadline specified in Section IV.C.(3) of the Order for the two remaining uninspected CPSES Unit 2 RPV head penetration nozzles to allow greater flexibility in planning and scheduling the necessary modification. Pursuant to Section IV.F.(2) of the Order, compliance with the deadline for completing the initial examination of these two specific nozzles would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

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During refueling outage 2RF08 in Spring 2005, 76 of 78 RPV head CRDM penetrations and the vent line penetration were successfully examined in compliance with the requirements of the Order. No indications of PWSCC or other service-induced degradation were detected during these examinations.

The two uninspected nozzles house the reactor vessel level indicating system (RVLIS) sensing probes within a guide sleeve permanently installed in the penetration. However, the original guide sleeve configuration precludes ID access for volumetric examination of the penetration tube wall. This condition was recognized while planning the inspection for the 2RF08 outage, a modification to resolve the obstructed access was prepared, implementation was attempted during the outage, but unanticipated as-built obstructions within both guide sleeves prevented use of the implementation tooling. Consequently, completion of the examination for these two penetrations was deferred until the intended modification can be successfully implemented.

Plans and necessary tooling are being developed with the intention of implementing the necessary modifications during the Fall 2006 refueling outage (2RF09) and if accomplished, the required examinations will also be completed in full compliance with the deadline established in the Order. However, this schedule is presently uncertain and if successful implementation during 2RF09 cannot be assured, deferral until the March 2008 refueling outage (2RF10) would be recommended. Therefore, this relaxation request is considered a necessary contingency to support thorough planning for a radiation dose-intensive, infrequently performed (unique) activity.

In order for the US PWR fleet to comply with the impending inspection deadline in 2008 for the RPV heads in the low susceptibility category, many such examinations are scheduled over the next few outage seasons. Consequently, equipment and personnel availability to implement the necessary modifications and complete the remaining two deferred penetration examinations at CPSES Unit 2 is limited. While the inspection tooling is typically delivered with remotely operated manipulators positioned under the RPV head within the head stand, integration with such a manipulator of the unique tooling designed specifically to modify these two RVLIS

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guide sleeves is not practical. Furthermore, the available manipulators will be more beneficially applied for the many baseline inspections planned contemporaneously. Manual delivery of the modification and inspection tools is therefore planned. However, if successful completion in 2RF09 cannot be virtually assured, the radiation dose associated with a questionable attempt would be counter to CPSES ALARA practices and would not be undertaken.

5. Proposed Alternative and Justification for Granting of Relaxation

TXU Power currently plans to implement the guide sleeve modification during the fall 2006 refueling outage and complete the non-visual NDE required by the Order. However, if it is determined that this cannot be completed successfully with a high degree of confidence, deferral to 2RF10 in March of 2008 will be recommended to minimize unnecessary and non-productive dose accumulation by plant and contract staff.

This relaxation request involves a delay of approximately one to two months beyond the deadline established in the Order and applicable to the CPSES Unit 2 RPV head. TXU Power believes the proposed delay is acceptable because it is of short duration, approximately 97.5% of the penetration tubes have been examined, and this RPV head is amongst the lowest of the low susceptibility heads in the PWR fleet based on its current "EDY" value.

The examination campaign in the spring 2005 2RF08 refueling outage was well in advance of the February 2008 deadline and among the first "T_{cold}" RPV heads to be examined under the Order. The combination of the head operating temperature (~561°F) and the relatively low total EFPYs result in a predicted EDY value at the Fall 2006 refueling outage of ~2.3, that as a measure of relative susceptibility is one of the lowest in the domestic fleet. Furthermore, 34 of the 78 CRDM penetration tubes, including the two at issue in this relaxation request, were fabricated from the same heat of material and therefore a clearly statistically significant population of tubes of this common material heat has been inspected. The early characterization of

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all but two of the RPV head penetrations and its extremely low susceptibility ranking credibly support the TXU Power position that the risk of undetected relevant indications existing in these two uninspected penetration tubes is acceptably low to defer their inspection per this relaxation request.

Previous examination history:

Prior to the spring 2005 non-visual NDE campaign on the CPSES Unit 2 RPV head, two detailed bare metal visual (BMV) exams were completed in successive refueling outages (2RF06 & 2RF07). A less rigorous general visual assessment was conducted during the most recent refueling outage (2RF08) in conjunction with the non-visual NDE. The insulation configuration for this RPV head affords excellent visual accessibility for this level of examination in outages that a detailed BMV is not required. These three under-insulation examinations to-date did not find any evidence of boric acid deposits on the surface of the reactor head.

6. **Duration of Proposed Alternative**

The proposed alternative would apply only from February 11, 2008 until CPSES begins the 2RF10 refueling outage, implements the RVLIS guide sleeve modification, and completes the required examinations. This refueling outage is presently scheduled to begin in March 2008.