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Ref: 10CFR50.90

**CPSSES-200301786**  
**Log # TXX-03150**  
**File # 00236**

**August 28, 2003**

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

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)**  
**DOCKET NOS. 50-445 AND 50-446**  
**ADDITIONAL INFORMATION RELATED TO**  
**LICENSE AMENDMENT REQUEST (LAR) 03-05,**  
**ONE-TIME CHANGE TO TECHNICAL SPECIFICATION (TS)**  
**3.7.10, CONTROL ROOM EMERGENCY**  
**FILTRATION/PRESSURIZATION SYSTEM**  
**(TAC NOS. MB9953 and MB9954)**

**REF: 1) TXU Energy Letter, logged TXX-03096, from C. L. Terry to U. S.**  
**Nuclear Regulatory Commission dated July 10, 2003**

**Gentlemen:**

In Reference 1, TXU Generating Company LP (TXU Energy) submitted proposed one-time changes to the Technical Specifications (TS) associated with the control room emergency filtration/pressurization system. The proposed amendment would extend the completion time for ACTION B to TS 3.7.10 from 24 hours to 14 days for implementation of the Turbine Control Digital Modification during the seventh refueling outage for Unit 2 (2RF07) and the tenth refueling outage for Unit 1 (1RF10). The descriptions of CONDITION A and CONDITION E will also be revised for consistency with CONDITION B.

Based on conversations with the NRC staff on August 27, 2003, TXU Energy provides the following additional information related to LAR 03-05 in the attachment.

This communication contains no new licensing basis commitments.

Should you have any questions, please contact Mr. Jack Hicks at (254) 897-6725.

A member of the **STARS** (Strategic Teaming and Resource Sharing) Alliance

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

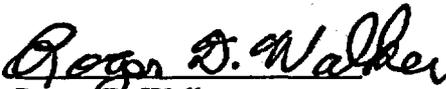
Executed on August 28, 2003.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,  
Its General Partner

C. L. Terry  
Senior Vice President and Principal Nuclear Officer

By:   
Roger D. Walker  
Regulatory Affairs Manager

JCH/jch

Attachment

c - T. P. Gwynn, Region IV  
W. D. Johnson, Region IV  
M. C. Thadani, NRR  
Resident Inspectors, CPSES

Mr. Authur C. Tate  
Bureau of Radiation Control  
Texas Department of Public Health  
1100 West 49<sup>th</sup> Street  
Austin, Texas 78704

**ATTACHMENT to TXX-03150**

**Request for additional information related to LAR 03-05,  
One-time Change to TS 3.7.10, Control Room Emergency Filtration/Pressurization System**

**Question 1:**

In the letter dated July 10, 2003, you have stated in Section 2.0, "PROPOSED CHANGE," that, "In summary, a TS 3.7.10 change is requested to allow the Control Room boundary to be intermittently opened (and declared inoperable) during the installation of the Turbine Control Digital Modification in 2RF07 and IRF10, for a time not to exceed 14 days per outage. 14 days is requested because the current schedule shows that the Control Room pressure boundary will be declared inoperable 11 days. 14 days allows some margin that may be required due to unforeseen implementation schedule changes."

You have also stated in Section 3.0, "BACKGROUND," that, "It may be required that CPSES be in the LCO of 3.7.10 for one extended duration or it may be that multiple entries and exits from the LCO of 3.7.10 are required to implement the proposed modification. In either case, the amount of time that CPSES will be in the LCO for T.S. 3.7.10 exceeds the current amount allowed. The amount of time will exceed 24 hours but it is not expected that the inoperable time will exceed 14 days."

Clarify whether the proposed outage is a total of "aggregate 14-days per unit" to install turbine digital control modification while CPSES will be in the LCO of 3.7.10 for one extended duration "or" it may be that multiple entries and exits from the LCO of 3.7.10.

**Response:**

The LAR was written with the intent of having the option of 1) opening the control room (CR) and leaving it open for 14 days for each outage or 2) multiple entries and exits during each outage. In either case, the total time from first opening until the final closing is planned within 14 days for each outage. The point is TXU Energy wants to close the CR boundary if the opportunity exists to do so efficiently. But if the opportunity to seal the CR boundary does not present a clear advantage, then the option for leaving it open for the duration of the turbine control digital modification implementation for each outage is desired.

**Question 2:**

What is the basis used by the licensee to determine that the amount of time to seal all the openings is two hours?

**Response:**

The procedure used to reseal the penetrations in the cable spreading room floor is MSG-1018. This is the installation and rework of penetrations seals. This will be utilized if the cables are in the process of being pulled in the control room. We also have Technical Evaluations (TE), EVAL-1999-002540-01-00 and Evaluation 93-001752, that have justified in the past to have a minimum of four inches of seal material in the hole and meet the pressure requirements of the control room. In addition to this we also have TE 92-000974 and TE 93-001881 that establish cure times required to satisfactorily maintain the pressure boundary. As an administrative control we will have at least one person at all times in the control room that is seal certified. In addition the seal machine will be in place and ready before breaching begins. As a backup to the machine

a sufficient quantity of Sim kits (hand pump up tubes of seal material) will be readily staged for use in the cable spreading room below the control room. The material being used to seal the penetrations is Dow Corning Corp. 3-6548 silicon RTV foam. The foam is self adhering and sets up (snaps) in 30 seconds to 2 minutes, depending on temperature and humidity. Per TE 92 - 000974, in fifteen minutes the material has cured enough to provide pressure boundary characteristics. If there are no cables in the penetrations they will be covered with visqueen material and taped down from the top side to seal off the breeches. Again this material will also be staged prior to any breeches.

Based on past history and experiences with seals of this size and nature TXU Energy is confident that one qualified person utilizing the seal machine could install the seals within the two hour time, including cure time. The eight 8 inch by 9 inch blockouts are in a row, 2 per cabinet. It will take approximately five minutes to set the foam in each blockout, with a 15 minute cure time. As soon as one seal is installed, we will move to the next seal. After all eight seals are initially installed, the seals will be inspected and could require additional foam. This would take no more than two minutes per blockout. All eight seals should be installed within one hour (8 seals times 5 minutes plus 8 seals times 2 minutes equals 56 minutes) and the control room boundary would be in place 15 minutes after the last seal was installed based on cure time. In the event the seal machine malfunctioned two qualified people could manually install the seals utilizing Sim Kits in the time allotted including cure time.

**Question 3:**

Given the worst-case credible accident and all eight blockouts open with cables running through each, how much time would the dedicated individual have available to seal all the openings before the control room operators would experience adverse effects or the control room became uninhabitable?

**Response:**

The LAR states that if the uncontrolled access area ventilation supply and exhaust fans are secured at the onset of the accident, then there is no path to the Control Room other than the intake of design pressurization flow which will be filtered and recirculated as designed. See the third paragraph on page 8 of Attachment 1 to Reference 1 for Large Break Loss of Coolant, Rod Ejection and RCP Locked Rotor Accidents. See the fourth paragraph on page 9 of Attachment 1 to Reference 1 under Main Steam Line Break and Steam Generator Tube Rupture accidents. See the third paragraph on page 10 of Attachment 1 to Reference 1 for Small Break Loss of Coolant Accident (3" CVCS Line Break Outside Containment). See the second paragraph on page 10 of Attachment 1 to Reference 1 for Fuel Handling Accident. See the first paragraph on page 11 of Attachment 1 to Reference 1 for Gas Decay Tank Rupture and Radioactive Liquid Waste Tank Rupture Accidents. In other words, the fact that the boundary is inoperable (for this specifically evaluated location) does not affect the operator consequences. The administrative action to seal the boundary is strictly to restore the Control Room envelope to operable and provide a defense in depth compensatory measure. Stopping the fans is not likely required to prevent the control room from being uninhabitable but it was the only identified inleakage vulnerability.

In the paragraph for "Summary of Accidents" on Page 11 of Attachment 1 to Reference 1 it is stated that the only compensatory measures are to secure the Uncontrolled Access Area Ventilation supply and exhaust fans at the onset of an accident.

**Question 4:**

Do you currently have, or do you plan to write procedures to direct temporary compensatory measures, such as the use of potassium iodide (KI) or self-contained breathing apparatus (SCBA), to ensure that GDC-19 is met in the event an accident occurs while the control room boundary is inoperable and conditions are such that unfiltered inleakage may enter the control room?

**Response:**

Since the threat due to smoke or toxic gas is negligible, there is no need to expand the answer to the above question beyond the radiological consequences.

Several administrative efforts are in place to help ensure the control room envelope, which includes the Technical Support Center (TSC), as well as other areas onsite, can be occupied by emergency response personnel without exceeding the GDC 19 limits. Of particular interest are the following procedures.

EPP-305, "Emergency Exposure Guidelines and Personnel Dosimetry"

EPP-306, "Use of Thyroid Blocking Agents"

EPP-309, "Onsite/In-Plant Radiological Surveys and Offsite Radiological Monitoring"

These procedures work in conjunction to protect all CPSES personnel during severe radiological conditions.

EPP-305 contains responsibilities of the EOF Radiation Protection Coordinator, such as 1) Ensuring personnel radiation exposures are maintained in accordance with 10 CFR, Part 20 limits, except when higher exposures are authorized by the Emergency coordinator; 2) Providing for 24-hour-per-day capability to determine doses received by ERO personnel involved in an emergency at CPSES; and 3) Assessing the need for and issuing of personnel dosimetry to various members of the ERO.

EPP-306 recommends that KI be made available to all CPSES ERO personnel if their thyroid dose is projected to exceed 25 Rem. EPP-109 states that this recommendation is the responsibility of the Emergency Coordinator. EPP-306 also provides some guidelines to follow regarding the use of KI and it also requires personnel who suspect they have inhaled radioiodines to contact Radiation Protection for whole body counting.

EPP-309 directs the formation of monitoring teams, radiological precautions the individuals should observe, and provides monitoring guidelines. EPP-309 also states that all monitoring team members should remain within the exposure limits of 10CFR20.

In addition to the above procedures there is an ERO position (ONRac) responsible for the evaluation of radiological conditions and dose projections for all areas onsite. This position also has the responsibility of prescribing radiological protective measures to guard against inhalation, beta dose, and external gamma dose. Some measures that this position may take are 1) Monitor dose and limit duty, 2) Prescribe protective clothing to guard against beta skin dose, 3) Special Dosimetry, 4) Evacuation of affected areas, and 5) SCBAs to guard against inhalation. SCBAs are staged in the control room for use in the event of smoke, toxic gas or radiation environments

within the envelope. The SCBAs have a maximum duration of 1 hour with 5 spare bottles staged for up to 6 hrs (although 6 SCBAs are staged, the intended expected number of users was 5 with one spare unit) after which the bottles must be replaced or refilled. If this is found to be a necessary protective measure, there is ample supply on site to sustain the operators while more replacement air is procured. However since the TSC is within the control room envelope, these personnel may have to evacuate to an alternate location in the event SCBAs are required. The control room and TSC are equipped with radiation monitors to provide continuous indication of gamma and iodine levels. The TSC is also equipped to monitor iodine levels. In summary, radiological conditions are periodically assessed, personnel exposure is tracked, and protective measures are prescribed to areas and individuals to ensure radiological limits are not exceeded. These measures described above, which are already in place, are designed to ensure operator doses are kept below the 10CFR20 / GDC 19 limits. These measures are taken independently of any supporting radiological analysis. In other words, even if no analysis ever existed, these measures would still be in place to ensure that CPSES personnel doses remain within the limits. Therefore, it is acceptable to rely on these measures in the temporary absence of a supporting radiological analysis.

**Question 5.**

Based on your common control room design, is there any chance of interference with the operation of the operating unit while in the process of sealing the blockouts?

**Response:**

As shown by CPSES FSAR Figure 1.2-33, Primary Plant Electrical Control Building Floor Plan EI 830'-0", there is over 100 feet between the cabinets for the blockouts on one unit and the operating area of the other unit in the control room. The process of sealing the blockouts on one unit would not interfere with the operation of the operating unit.

For Unit 2 modifications during 2RF07, the cabinets of interest are at location B-4 and labeled EHC, TSE and SSC respectively.

For Unit 1 modifications during 1RF10, the cabinets of interest are at location E-4 and labeled EMC, SE and SSC respectively.