

Mr. C. Lance Terry
Senior Vice President
& Principal Nuclear Officer
TXU Energy
ATTN: Regulatory Affairs
P. O. Box 1002
Glen Rose, TX 76043

October 2, 2003

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES), UNITS 1 AND 2 -
ISSUANCE OF AMENDMENTS RE: ONE-TIME EXTENSION OF ALLOWABLE
OUTAGE TIME FOR CONTROL ROOM EMERGENCY FILTRATION
PRESSURIZATION SYSTEM OPERABILITY (TAC NOS.MB9953 AND MB9954)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment No. 108 to Facility Operating License No. NPF-87 and Amendment No. 108 to Facility Operating License No. NPF-89 for CPSES, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated July 10, 2003, as supplemented by letter dated August 28, 2003.

The amendments revise TS 3.7.10 to permit a one-time extension for each unit of allowable outage time from 24 hours to 14 days, while the control room emergency filtration/pressurization system boundary is declared inoperable during the proposed implementation of turbine control digital modifications. The proposed modifications are scheduled for implementation during the seventh refueling outage for Unit 2 in the Fall of 2003, and tenth refueling outage for Unit 1 in the Spring of 2004.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

Mohan C. Thadani, Senior Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures: 1. Amendment No. 108 to NPF-87
2. Amendment No. 108 to NPF-89
3. Safety Evaluation

cc w/encls: See next page

Mr. C. Lance Terry
Senior Vice President
& Principal Nuclear Officer
TXU Energy
ATTN: Regulatory Affairs
P. O. Box 1002
Glen Rose, TX 76043

October 2, 2003

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES), UNITS 1 AND 2 -
ISSUANCE OF AMENDMENTS RE: ONE-TIME EXTENSION OF ALLOWABLE
OUTAGE TIME FOR CONTROL ROOM EMERGENCY FILTRATION
PRESSURIZATION SYSTEM OPERABILITY (TAC NOS.MB9953 AND MB9954)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment No. 108 to Facility Operating License No. NPF-87 and Amendment No. 108 to Facility Operating License No. NPF-89 for CPSES, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated July 10, 2003, as supplemented by letter dated August 28, 2003.

The amendments revise TS 3.7.10 to permit a one-time extension for each unit of allowable outage time from 24 hours to 14 days, while the control room emergency filtration/pressurization system boundary is declared inoperable during the proposed implementation of turbine control digital modifications. The proposed modifications are scheduled for implementation during the seventh refueling outage for Unit 2 in the Fall of 2003, and tenth refueling outage for Unit 1 in the Spring of 2004.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

Mohan C. Thadani, Senior Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures: 1. Amendment No. 108 to NPF-87
2. Amendment No. 108 to NPF-89
3. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION:

PUBLIC	RidsNrrDlpmPdivLpdiv1 (RGramm)	RidsOgcRp
PDIV-1 Reading	RidsNrrPMMThadani	RidsAcrsAcnwMailCenter
RidsNrrDlpmPdiv (HBerkow)	RidsNrrLADJohnson	G.Hill(4)
DRIP/RORP/TSS	J.Raval	M.Hart
E.Forrest	RidsRgn4MailCenter (AHowell)	J.Bongarra

Accession No.: ML032770008

* No significant change to SE input

OFFICE	PDIV-1/PM	PDIV-1/LA	DSSA-SPSB/SC	OGC	PDIV-1/SC
NAME	MThadani	DJohnson	RDennig*	KKannler	RGramm
DATE	10/01/03	10/1/03	09/17/2003	10/1/03	10/2/03

TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION, UNIT NO. 1
DOCKET NO. 50-445
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 108
License No. NPF-87

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by TXU Generation Company LP dated July 10, 2003, as supplemented by letter dated August 28, 2003, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-87 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 108, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TXU Generation Company LP shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: October 2, 2003

TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION, UNIT NO. 2
DOCKET NO. 50-446
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 108
License No. NPF-89

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by TXU Generation Company LP dated July 10, 2003, as supplemented by letter dated August 28, 2003, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 108, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TXU Generation Company LP shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: October 2, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 108

TO FACILITY OPERATING LICENSE NO. NPF-87

AND AMENDMENT NO. 108

TO FACILITY OPERATING LICENSE NO. NPF-89

DOCKET NOS. 50-445 AND 50-446

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
3.7-23	3.7-23
3.7-24	3.7-24

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 108 TO
FACILITY OPERATING LICENSE NO. NPF-87
AND AMENDMENT NO. 108 TO
FACILITY OPERATING LICENSE NO. NPF-89
TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By letter dated July 10, 2003, as supplemented by letter dated August 28, 2003, TXU Generation Company LP (TXU Energy, licensee) requested changes to the Technical Specifications (TSs) for Comanche Peak Steam Electric Station (CPSES), Units 1 and 2. The proposed change for each unit would revise TS 3.7.10, "Control Room Emergency Filtration/Pressurization System (CREFS)," to allow a one-time extension of the allowed completion time for ACTION B, from 24 hours to 14 days. In addition, the licensee proposed descriptions for CONDITIONS A and E to accommodate the change to ACTION B. The supplemental letter dated August 28, 2003, provided additional information that clarified the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on August 5, 2003 (68 FR 46246). The proposed changes are needed to facilitate implementation of the planned turbine control digital modification, currently scheduled during the seventh refueling outage for Unit 2 (2RF07), and the tenth refueling outage for Unit 1 (1RF10). The proposed TS changes are requested to allow the control room boundary to be intermittently opened (and declared inoperable) during the installation of the turbine control digital modification.

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) staff finds that the licensee, in its July 10, 2003, application, addressed the applicable regulatory requirements. The regulatory requirements and guidance upon which the NRC staff based its review of the application are as follows:

1. General Design Criteria (GDC) 19, "Control Room," as it relates to maintaining the control room in a safe, habitable condition under accident conditions by providing adequate protection against radiation and toxic gases.

2. Industry/Technical Specifications Task Force (TSTF) Technical Specification Change Traveler 287, Revision 5, "Ventilation System Envelope Allowed Outage Time."
3. Regulatory Guide (RG)1.174, "An Approach for Using Probabilistic Risk Assessment In Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis" (July 1998).
4. RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decision Making: Technical Specifications" (1998).
5. RG 1.189, "Fire Protection for Operating Nuclear Power Plants" (April 2001).
6. RG 1.196, "Control Room Habitability at Light-water Nuclear Power Reactors" (May 2003).
7. NUREG-0700, Rev. 2, "Human-System Interface Design Review Guidelines" (May 2002).
8. NUREG-0800, "Standard Review Plan" (draft for comment, 2003).
9. NUREG-0711, Rev. 1, "Human Factors Engineering Program Review Model" (May 2002).
10. NUREG-1764, "Guidance for the Review of Human Actions (Draft Report for Comment)" (December 2002).
11. Information Notice 97-78, "Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times" (October 1997).
12. NRC Generic Letter 91-18, Revision 1: Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions, October 8, 1997.

3.0 TECHNICAL EVALUATION

The CPSES control room is common to both units. One unit will be operating and the other unit will be in an outage during implementation of the turbine control digital modification. The current TS 3.7.10 for the control room ventilation systems allows the main control room boundary to be inoperable for up to 24 hours. The Limiting Condition for Operation (LCO) Note for TS 3.7.10 states, "The control room boundary may be opened intermittently under administrative controls."

The licensee has planned the turbine control digital modification for Unit 2 during its Fall 2003 refueling outage (2RF07) and for Unit 1 during its Spring 2004 refueling outage (1RF10), and will require that the floor penetrations in the control room boundary be opened to accommodate the installations. The planned opening of the control room boundary will span a period of several days and will require eight 8-inch x 9-inch cable penetration "blockouts" be opened between the control room and cable spreading room. In addition, 4-inch conduits may also be opened to accommodate cable pulls. In some cases, multiple penetrations will be simultaneously open.

Consistent with the TS 3.7.10 LCO Note, the licensee provided administrative controls for the opening by stationing a dedicated individual at the opening, who is in continuous communication range (i.e., audible range) with the control room operator. This individual will have a suitable method and resources to rapidly close the opening when needed for control room isolation (e.g., plastic sheeting and duct tape, penetration seal material such as silicone foam used for fire seals, etc.). The licensee's conservative estimate of the time to seal all openings is two hours, with cables running through all eight 8-inch x 9-inch cable penetration blockouts. Therefore, the licensee requested a one-time extension of the required completion time associated with an inoperable control room boundary from 24 hours to 14 days.

Proposed Change:

The proposed one-time change for each unit revises the Completion Time for ACTION B and the descriptions for CONDITION A and CONDITION E, as follows:

1. The revised ACTION is associated with CONDITION B of TS 3.7.10. ACTION B is revised to provide a 14 day Completion Time when two CREFS trains are inoperable due to an inoperable control room boundary during the installation of the turbine control digital modification in 2RF07 and 1RF10.
2. The description for CONDITION A, "One CREFS train inoperable" is being revised by adding "for reasons other than Condition B." This allows the operating unit to continue operating after 7 days with an inoperable control room boundary only during the other unit's refueling outage.
3. The description for CONDITION E, "Two CREFS trains inoperable in MODE 5 or 6, or during movement of irradiated fuel assemblies" is being revised by adding "except for up to 14 days for a one time implementation for each unit of the Turbine Control Digital Modification to be completed during 2RF07 and 1RF10." This allows movement of irradiated fuel assemblies during implementation of the turbine control digital modification.

The license amendment request also includes associated changes to the TS Bases for information only, which are revised to reflect the above TS changes.

In a letter dated July 10, 2003, as supplemented by letter dated August 28, 2003, TXU Energy stated the following in support of the one-time temporary changes to TS 3.7.10:

1. The CREFS design has zone isolation, with filtered recirculation air, and with a positive pressure in the control room boundary relative to adjacent areas. This design maximizes the iodine protection factors and minimizes the dose from iodine. The total unfiltered infiltration rate in the control room is conservatively assumed to be 12 cfm, including 10 cfm due to ingress and egress, and 2 cfm leakage from the ductwork passing through the control room boundary.
2. The control room pressurization will not preclude 1) inleakage from adjacent areas that are at a higher pressure than that of the control room boundary, 2) inleakage from plant systems that penetrate the control room boundary and are maintained at a higher pressure than that of the surrounding control room environment (provided the system

breach occurs within the control room boundary), and 3) entrainment of contaminants into the control room environment through the seals on the suction side of the CREFS equipment (ducts seams, fan shaft seals, housing inspection doors, etc). It is noted that the above limitations of the pressurization test are under evaluation by CPSES, the NRC, and the industry through Nuclear Energy Institute, and are not specifically addressed in this request for a one-time extension of the Completion Time for CONDITION B.

- a. CPSES interprets that the control room boundary is inoperable at the time it becomes known that there is a hole in the boundary that exceeds a pre-determined limit. The boundary is declared operable at the time when the opening is sufficiently sealed. The control room is sufficiently sealed when the determination can be made that the ability to pressurize the boundary to 0.125 inches water gauge with less than or equal to 800 cfm of makeup air is restored.
 - b. CPSES also interprets that a limiting set of control room boundary openings may exist and not render the control room boundary inoperable. In other words, if a hole in the boundary is less than a specified size in square inches, then one train of the control room pressurization system is capable of pressurizing the envelope to 0.125 inches water gauge with less than or equal to 800 cfm of makeup air. If planned maintenance or modifications will breach the boundary, the size of the opening is compared against the maximum allowable. If the breach exceeds the maximum allowable, the boundary is typically declared inoperable and must be restored within 24 hours.
3. During the period that any known breach exists, administrative controls are in place to address the breach commensurate with the size, expected duration, and location of the breach. Administrative controls and compensatory measures, in some cases, extend beyond the TS pressurization requirement. For example, there may be different sets of actions to implement for security and fire protection measures, based on the size and location of the boundary breach. The need for administrative controls relative to control room boundary breaches are already established within existing site programs.
4. The one-time extension of the Completion Time for CONDITION B of TS 3.7.10 will not affect CPSES adherence to the use of any of the existing programs for these administrative controls and compensatory measures. It may be required that CPSES be in the LCO of TS 3.7.10 for one extended duration, or it may be that multiple entries and exits from the LCO of TS 3.7.10 are required to implement the proposed modification.
5. This proposed one-time allowance in TS 3.7.10 would exist only for the purpose of supporting the planned turbine control digital modification. This modification will create a breach between the control room and the cable spreading room for the implementing unit. Therefore the breach locations and magnitude are known prior to entering the LCO for TS 3.7.10.
6. The proposed one-time temporary changes to TS 3.7.10 will not alter the requirements of the CREFS or its function during accident conditions. The administrative controls and compensatory actions ensure the CREFS will perform its safety function.

7. The proposed one-time temporary change to the CPSES TS 3.7.10 will not result in plant operation in a configuration outside the design basis for an unacceptable period of time without compensatory actions and administrative controls. Therefore the proposed change does not involve a reduction in a margin of safety.
8. The proposed one-time temporary change to CPSES TS 3.7.10 will ensure that the requirements contained in 10 CFR Part 50, Appendix A, GDC 19 are maintained based on the performed analyses for toxic gas and smoke and radiological impacts.
9. The proposed one-time temporary "14 days Completion Time" for ACTION B to TS 3.7.10 LCO represents a total "14-days per unit Completion Time" to install turbine digital control modification. It is intended to allow the option of 1) opening the control room and leaving it open for 14 days for each outage, or 2) operating and closing the control room boundary entries and exits multiple times 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 control room boundary will be sealed, if the opportunity exists to do so efficiently. The control room boundary will be left open for the duration of the turbine control digital modification for each unit outage, if the opportunity to seal the control room boundary is not clearly advantageous.
10. The description for CONDITION A is being revised to allow the operating unit to continue operating after 7 days with an inoperable Control Room boundary. The description for CONDITION E is being revised to allow movement of irradiated fuel assemblies during implementation of the Turbine Control Digital Modification. No changes to the CPSES Final Safety Analysis Report (FSAR) are anticipated at this time as a result of the license amendment request.

The NRC staff is not in agreement with the licensee's positions identified in Items 2.a and 2.b concerning the operability of the control room boundary. The NRC staff position on these items are outlined in Regulatory Guide 1.196, Section C, Regulatory Position 2.7.1, "Periodic Evaluations and Maintenance," concerning Item 2.a, and Regulatory Position 2.7.2, "Configuration Control and Training" concerning Item 2.b. However, the proposed one-time temporary TS change is found acceptable based on the following assessment.

The NRC staff reviewed the licensee's rationale, as stated above, for the proposed TS change. The proposed change to TS 3.7.10 is a "one-time temporary" change limited to 2RF07 for Unit 2 and 1RF10 for Unit 1. The licensee established the administrative controls and performed technical evaluations concerning the toxic gas and smoke, and radiological impacts which demonstrates the requirements of GDC 19 of Appendix A to 10 CFR Part 50 are met in support of the proposed change.

In order to maintain defense-in-depth and to ensure a commensurate degree of protection to the operators during known breaches to the common control room envelope pressure boundary, the licensee's administrative measures, as described above, are considered adequate to protect the control room operators during accident conditions. The administrative measures called for in the proposed one-time temporary TS change are those that are already in place for the permanent TS 3.7.10, ACTION B with Completion Time of 24 hours. These controls were approved by NRC staff for the adoption of the TSTF Traveler 287, Revision 5. The NRC staff finds that the proposed change that revises the Completion Time for ACTION B

and the descriptions for CONDITION A and CONDITION E are acceptable because (1) both trains of the CREFS are operational, (2) the known control room boundary breaches will be resealed in accordance with the implemented administrative controls prior to initiation of the CREFS, and (3) in the event of an accident in the operating unit (while the non-operating unit is in refueling outage to install the turbine control digital modification), one of the two trains of the CREFS will be aligned to provide protection to the control room operators commensurate with the requirements of the GDC 19 of Appendix A to 10 CFR Part 50.

3.1 Human Factors Engineering Evaluation

In addition to the information submitted by the licensee in its July 10, 2003 request, the licensee, in its August 28, 2003, submittal provided further information in response to the NRC staff's questions related to the use of a dedicated individual and associated manual actions. In response to the NRC staff's question regarding the basis used by the licensee to determine that the amount of time to seal all penetrations will not exceed two hours, CPSES indicated that it has a procedure, MSG-1018, for resealing the floor penetrations in the cable spreading room. The MSG-1018 procedure addresses the installation and re-work of penetration seals, which will be used in the process of pulling cables in the control room. The licensee stated that it also has technical evaluations (TE), EVAL-1999-002540-01-00 and Evaluation 93-001752, specifying that a minimum of 4 inches of seal material in the penetrations will meet the pressure requirements of the control room. In addition, CPSES has TE 92-000974 and TE 93-001881 that establish cure times necessary to satisfactorily maintain a pressure boundary. The dedicated individual, who is in the control room at all times when the pressure boundary is inoperable, is seal certified. In addition, the seal machine will be in place before breaching the pressure boundary. As a backup to the machine, the licensee indicated that there will be a sufficient quantity of Sim Kits (hand pump up tubes of seal material) staged for use in the cable spreading room below the control room. The material that will be used to seal the penetrations is Dow Corning Corporation 3-6548 silicon RTV foam. The foam is self-adhering and sets up (snaps) in 30 seconds to two minutes, depending on temperature and humidity. If there are no cables in the penetrations, they will be covered with visquen 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 history and experience with seals of this size and nature, the licensee 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 x 9-inch blockouts are in a row, two per cabinet. CPSES states that 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, the next penetration will be sealed, etc. After all eight seals are initially installed, the seals will be inspected and could require additional foam. CPSES states that this would take no more than two minutes per blockout. All eight seals should be installed within one hour (eight seals times five minutes plus eight seals times two 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, the licensee states that two qualified people could manually install the seals utilizing Sim Kits in the time allotted including cure time.

Based on the information provided in its supplemental letter dated August 28, 2003, the licensee satisfactorily addressed the NRC staff's question related to the basis for allowing two hours to seal all the open penetrations.

The NRC staff also asked the licensee to explain, given the worst-case credible accident and all eight blockouts open with cables running through each, how much time it would take the dedicated individual to seal all the openings before the control room operators would experience adverse effects or the control room became uninhabitable. In response to this question, CPSES indicated that if the uncontrolled access area ventilation supply and exhaust fans are secured at the onset of a credible accident, then there is no path to the control room other than the intake of design pressurization flow which will be filtered and re-circulated as designed. In other words, the fact that the boundary is inoperable (for this specifically evaluated location) does not affect the conduct of the operators. 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. The only compensatory measures needed to ensure that a breach in the control room, which provides direct communication to the cable spreading room, will not adversely affect control room habitability are to secure the Uncontrolled Access Area Ventilation supply and exhaust fans at the onset of an accident or if there is a threat of smoke or toxic gas from sources exterior to the plant. The licensee further indicated, in its August 28, 2003 submittal, that stopping the fans will likely not be required to prevent the control room from being uninhabitable, but was the only identified in-leakage vulnerability in its analysis.

Based on the information provided in its supplemental letter dated August 28, 2003, the licensee satisfactorily addressed the NRC staff's question related to how much time it would take the dedicated individual to seal all the openings before the control room operators would experience adverse effects or the control room became uninhabitable.

The NRC staff also asked the licensee to address the potential for interference with the operation of the operating unit while in the process of sealing the blockouts, because CPSES has a common control room design and one unit will be operating while the other unit is in an outage during the implementation of the Turbine Control Modification.

In response to this question, the licensee indicated, in its supplemental letter dated August 28, 2003, that, 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.

The NRC staff finds that the licensee's assessment that the process of sealing the blockouts on one unit would not interfere with the operation of the operating unit is acceptable.

The NRC staff reviewed the licensee's July 10, 2003, submittal, as supplemented by letter dated August 28, 2003, which includes using a dedicated operator and associated measures to seal the cable penetration blockouts that will be opened during the installation of the turbine control digital modification. The NRC staff finds that the licensee satisfactorily addressed the NRC staff's human factors engineering review criteria, as identified in Section 2.0 (Regulatory

Evaluation), and there is reasonable assurance to conclude that the manual actions proposed by the licensee can be successfully performed without adverse safety consequence to the plant, plant personnel, or the public.

3.2 Toxic Gas and Smoke Assessment

In the application dated July 10, 2003, the licensee evaluated toxic gas and smoke concerns as below, in support of the above one-time temporary changes to TS 3.7.10 in order to implement the turbine control digital modification:

1. The threat of smoke or toxic gas from offsite sources is not credible based on location and layout of the facility. The chemicals and combustibles are controlled so that the threat of smoke or toxic gas from on-site sources is negligible.
2. In the event of smoke or toxic gas threat to the control room, the control room ventilation would switch to the isolation mode (which does not pressurize the control room) and the control room heating, ventilation and cooling system would recirculate the air within the control room boundary.
3. The control room boundary breach will not be in the exterior walls of the control room but will be in the floor of the control room and the ceiling of the cable spreading room. Thus, any intrusion of toxic gas or smoke into the control room due to this modification would come from the cable spreading room. The provision of a continuous fire watch is to be implemented in the cable spreading room when the control room boundary is breached.
4. The administrative controls in place for these openings consist of stationing a dedicated individual at the openings, who is in continuous communication range (i.e., audible range) with the control room operator. This individual will have a suitable method and resources to rapidly close openings.

The NRC staff reviewed the licensee's rationale, above, concerning the impact of toxic gas and smoke for the proposed change to TS 3.7.10 to implement the turbine control digital modifications. The licensee established the administrative controls and performed a technical evaluation concerning the toxic gas and smoke, in order to meet the requirements of GDC 19, of Appendix A to 10 CFR Part 50 and conform with the appropriate guidance such as RG 1.189, April 2001, in support of the proposed change.

The NRC staff finds that the proposed one-time temporary change to TS 3.7.10 is acceptable in the event of accident conditions involving toxic gas or smoke because (1) both trains of the CREFS are operational; (2) the known control room boundary breaches will be resealed in accordance with the implemented administrative controls prior to initiation of the CREFS by a dedicated individual with means and materials to close the openings on short notice; (3) a fire watch with appropriate training, such as defined by RG 1.189, in the cable spreading room; and (4) the requirements of GDC 19 of Appendix A to 10 CFR Part 50 continue to be met, with regard to protection of control room operators from smoke or toxic gas, due to the overall low potential of the threat. Therefore, the NRC staff concludes that a one-time extension of control room boundary breach closure completion time limitation is acceptable for each unit to permit the installation of the turbine control digital modification.

3.3 Radiological Consequence Analysis

The NRC staff reviewed the licensee's analyses and its proposed compensatory temporary measures, and determined that there will continue to be emergency safety feature filtration through the intact CREFS to remove radioactive contaminants from the control room habitability envelope atmosphere and from the outside makeup air in the event of a design basis accident (DBA). The previously approved analyses of the dose consequences of DBAs continue to be applicable for conditions allowed by the proposed changes to TS 3.7.10. As noted in the August 28, 2003 supplemental letter, the licensee states that there are administrative controls in place to assure that GDC-19 continues to be met in accident conditions. Emergency procedures and other administrative controls provide for the use of potassium iodide and self-contained breathing apparatus to reduce the thyroid dose to the control room operators in the event of a DBA during the time the control room boundary is inoperable for installation of the turbine digital control modification. The licensee also provides for other measures to reduce radiological dose such as monitoring, protective clothing to guard against beta skin dose, special dosimetry, and evacuation of affected areas. Therefore, the NRC staff concludes that there is reasonable assurance that GDC-19 will be met for the proposed license amendment, allowing a one-time extension of the LCO Completion Time for TS 3.7.10 from 24 hours to 14 days for implementation of the turbine control digital modification. The NRC staff finds reasonable assurance that the CPSES control room will be habitable, with the administrative controls and compensatory measures in place, in the event of a DBA that could challenge the ability of the control room operators to protect the health and safety of the public.

3.4 Integrated Decisionmaking

The NRC staff has determined that this one-time Completion Time extension from 24 hours to 14 days for implementation of the turbine control digital modification is a viable and practical approach. Additionally, administrative controls and compensatory measures are provided to address the potential accident conditions during the intentionally created control room boundary breaches during the Unit 2 Fall refueling outage (2RF07) and Unit 1 Spring refueling outage (1RF 10) to install the turbine control digital modification. This revision to TS 3.7.10 is designed to limit the intrusion of unfiltered in-leakage into the control room boundary by implementing administrative controls which enhance pressurization of the space by sealing openings that can potentially leak unfiltered air into the control room boundary. The NRC staff has determined the acceptability of this change to the TS 3.7.10 by balancing this one-time extension against the plant improvements provided by the CPSES turbine control digital modifications.

Based on the above review, the NRC staff concludes that the proposed revisions to the TS are consistent with the requirements of GDC 19 and the intent of RG 1.189. In addition, the proposed revisions are similar to the guidance of TSTF 287 such that the licensee has established the administrative controls as identified in TSTF 287 and performed a technical evaluation concerning the toxic gas and smoke, and radiological impacts in order to comply with the requirements of GDC 19. The licensee has also satisfactorily addressed the NRC staff's human factors engineering review criteria, as identified in Section 2.0 (Regulatory Evaluation) of the NRC staff's evaluation, and there is reasonable assurance that the manual actions proposed by the licensee can be successfully performed without adverse safety consequence to the plant, plant personnel, or the public.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards considerations, and there has been no public comment on the finding (68 FR 46246, published August 5, 2003). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, on the basis of the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Raval
M. Hart
E. Forrest
J. Bongarra

Date: October 2, 2003

Comanche Peak Steam Electric Station

cc:

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 2159
Glen Rose, TX 76403-2159

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

Mr. Roger D. Walker
Regulatory Affairs Manager
TXU Generation Company LP
P. O. Box 1002
Glen Rose, TX 76043

George L. Edgar, Esq.
Morgan Lewis
1111 Pennsylvania Avenue, NW
Washington, DC 20004

County Judge
P. O. Box 851
Glen Rose, TX 76043

Environmental and Natural
Resources Policy Director
Office of the Governor
P. O. Box 12428
Austin, TX 78711-3189

Mr. Richard A. Ratliff, Chief
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

Mr. Brian Almon
Public Utility Commission
William B. Travis Building
P. O. Box 13326
1701 North Congress Avenue
Austin, TX 78701-3326

Ms. Susan M. Jablonski
Office of Permitting, Remediation
and Registration
Texas Commission on Environmental
Quality
MC-122
P. O. Box 13087
Austin, TX 78711-3087

Terry Parks, Chief Inspector
Texas Department of Licensing
and Regulation
Boiler Program
P. O. Box 12157
Austin, TX 78711