



**TXU Electric
Comanche Peak
Steam Electric Station**
P.O. Box 1002
Glen Rose, TX 76043
Tel: 254 897 8920
Fax: 254 897 6652
lterry1@txu.com

C. Lance Terry
Senior Vice President & Principal Nuclear Officer

CPSES-200002411
Log # TXX-00191
File # 10010
916 (TRM)

October 27, 2000

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
TRANSMITTAL OF TECHNICAL REQUIREMENTS MANUAL
(TRM) REVISION 35**

Gentlemen:

TXU Electric herewith submits Revision 35 (Enclosure) of the CPSES Technical Requirements Manual (TRM). Enclosed is the following document:

Technical Requirements Manual
Revision 35

1 signed original
and 10 copies

The Attachment contains a description of the changes. As has been the TXU Electric practice in the past several TRM revisions, all changes described in the Attachment have been evaluated for relative significance (i.e., the group number 1, 2, 3, or 4 corresponds to each change justification as discussed in TXU Electric letter TXX-88467 dated June 1, 1988). In addition, all changes applicable to CPSES Units 1 and 2 have been reviewed under the TXU Electric 10CFR50.59 process and found not to include any "unreviewed safety questions."

TRM Revision 35, dated September 30, 2000, became effective at 12:01 AM CST on September 30, 2000.

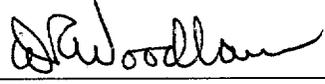
D029

TXX-00191
Page 2 of 2

This communication contains no new licensing basis commitments regarding CPSES Units 1 and 2. If you have any questions, please contact Don Woodlan at (254) 897-6887.

Sincerely,

C. L. Terry

By: 

D. R. Woodlan
Docket Licensing Manager

JCH/grp
Enclosures

c - E. W. Merschoff, Region IV
J. I. Tapia, Region IV
D. H. Jaffe, NRR
Resident Inspectors, CPSES

CPSES - TECHNICAL REQUIREMENTS MANUAL

REVISION - 35
 DETAILED DESCRIPTION

Prefix Page
 (as amended)

Page 3

<u>Group</u>	<u>Description</u>
	<p>instantaneous overcurrent characteristics. This activity replaces these test descriptions by inverse-time overcurrent trip test, to verify that the test trip time does not exceed the maximum trip time per the breaker time-current characteristics (TCCs) and instantaneous overcurrent trip test.</p> <p>Presently the surveillance testing of MCCBs is based on the testing requirements provided in NEMA AB 2, Guidance for Field Testing of MCCBs, which refers to NEMA AB 1, Molded Case Circuit Breakers and Molded Case Switches, from which the test requirements are derived. NEMA AB 1 is a standard suitable for a laboratory environment. As such, CPSES has experienced unnecessary failures of MCCBs during these tests. NEMA AB 2 has been rescinded and NEMA AB 4, Guidelines for Inspection and Preventive Maintenance of Molded Case Circuit Breakers Used in Commercial and Industrial Applications, was issued which provides guidelines for field verification of specific characteristics of MCCBs. The testing of inverse-time overcurrent trip and instantaneous overcurrent trip characteristics based on NEMA AB 4, which employ broader tolerances than the manufacturers factory tolerances of NEMA AB 1, will assure the operability of the molded case circuit breakers to interrupt the circuit when required, and it will also reduce the unnecessary test failures associated with laboratory test tolerances.</p>

The molded case circuit breakers are not to be repaired because the NEMA AB 4 is not intended to verify performance of a molded case circuit breaker which has been disassembled, modified, or rebuilt. Therefore, the TRS is being revised to require replacing of inoperable breakers by operable breakers to clearly define the action required.

The performance of the MCCB tests under the revised program will adequately assure the performance characteristics of the breaker.

Change Request Number	TR - 93 - 13 . 3
Related SER : 8.4.1	SSER : 24
SER/SSER Impact	N

13.8- 7	2	<p>The TRS 13.8.32.3 breaker surveillance for inspection and preventive maintenance is split into three surveillances: TRS 13.8.32.3 for medium voltage 6.9 kV switchgear circuit breaker, TRS 13.8.32.4 for low voltage 480V switchgear circuit breakers, TRS 13.8.32.5 for 480V and lower voltage molded case circuit breakers and the surveillance period for molded case circuit breakers is changed to 72 months.</p>
---------	---	---

CPSES - TECHNICAL REQUIREMENTS MANUAL
REVISION - 35
DETAILED DESCRIPTION

Prefix Page
 (as amended)

Page 5

<u>Group</u>	<u>Description</u>
	numbers for the containment penetration overcurrent protection device associated with the Unit 2 Containment Jib Crane which was added to the TRM under Safety Evaluation 98-033 in Revision 27. This update is within the scope of changes approved in SE-98-033.

Change Request Number	TR - 2000- 4 . 2
Related SER :	SSER :
SER/SSER Impact	N

B 13.8- 2

2	<p>The bases for TRB 13.8.32, Containment Penetration Conductor Overcurrent Protection Devices, is being revised:</p> <ol style="list-style-type: none"> 1) to include medium voltage circuit breakers as also being applicable, 2) to describe that the testing is done on a staggered basis such that all breakers are tested in a period of 72 months, and that molded case circuit breakers are tested per the requirements of NEMA AB 4, 3) to delete the justification for MOV thermal overloads not requiring a surveillance because the subject is not related to containment penetration conductors overcurrent protection.
---	---

Revision

TRB changes 1) and 3) are editorial in nature.

TRB change 2) is addressed in change requests TR-93-13.1, TR-93-13.2 and TR-93-13.3.

Change Request Number	TR - 93 - 13 . 5
Related SER :	SSER :
SER/SSER Impact	N

Enclosure to TXX-00191

[Technical Requirements Manual, Revision 35:
Instruction Sheet,
Replacement Pages 13.8-6, 13.8-7, 13.8-29, 13.8-30, B13.8-2,
EPL-1 through EPL-7]

(Including this page, 14 pages total)

**COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 AND 2
TECHNICAL REQUIREMENTS MANUAL (TRM) INFORMATION ONLY
INSTRUCTION SHEET
(Page 1 of 1)**

The following instructional information and checklist is being furnished to help insert Revision 35 TRM pages into the Comanche Peak Steam Electric Station TRM.

Insert

Remove

Section 13.8

13.8-6
13.8-7
13.8-29
13.8-30

13.8-6
13.8-7
13.8-29
13.8-30

Bases Section 13.8

B 13.8-2

B 13.8-2

List of Effective Pages

EPL-1 through EPL-7

EPL-1 through EPL-7

Note: Please complete the entry for insertion of Revision 35 on the “Record of Changes” form located at the beginning of the TRM.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY	
TRS 13.8.32.2	<p>Verify that the 480V and lower voltage molded case circuit breakers are OPERABLE by performing the following:</p> <ul style="list-style-type: none"> a. Inverse time overcurrent trip test to verify that the test trip time does not exceed the maximum trip time per the breaker time-current characteristics. b. Instantaneous overcurrent trip test. c. Circuit breakers found inoperable during functional testing shall be replaced by OPERABLE breakers prior to resuming operation. d. For each circuit breaker found inoperable during these functional tests, an additional representative sample of a least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested. 	<p>72 months</p> <p>AND</p> <p>At least 10% of the breakers tested every 18 months for breaker groups with ≥ 4 breakers</p> <p style="text-align: center;">OR</p> <p>At least 1 breaker tested every 36 months for breakers groups with 2 or 3 breakers.</p>	35
TRS 13.8.32.3	<p>Subject each medium voltage 6.9kv switchgear circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.</p>	<p>60 months</p>	35
TRS 13.8.32.4	<p>Subject each low voltage 480V switchgear circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.</p>	<p>60 months</p>	35
TRS 13.8.32.5	<p>Subject each 480V and lower voltage molded case switchgear circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.</p>	<p>72 months</p>	35

TABLE 13.8.32-1b (Page 9 of 14)
UNIT 2 CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

4. 480VAC From Panelboards (continued)

4.3 480 VAC From Plant Support Power Systems Panelboards

Both primary and backup breakers have identical trip settings, and are located in the same panelboard. These breakers are Square D type FA, FH, KH, and LH.

| 35

a) Panelboard 2B10-1-2

<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>
Ckt 2	FH	Containment Elevator CP2-MEELRB-01
Ckt 4	KH	Containment Welding Receptacles
Ckt 6	LH	Containment Polar Crane CP2-MESCCP-01
Ckt 1/Bkr-1	FH	Containment Jib Crane CP2-MEMECA-16 Disconnect Switches CP2- ECDSNC-15&16

| 35

(continued)

TABLE 13.8.32-1b (Page 10 of 14)
UNIT 2 CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

4. 480VAC From Panelboards (continued)

4.3 480 VAC From Plant Support Power Systems Panelboards

b) Panelboard 2B10-1-1-1

<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>
Ckt 4 ^(b)	FH	Personnel Airlock Hydraulic Units CP2-MEMEHU-01 and 02
Ckt 6	FH	Fuel Transfer System Rx Side Cont. Pnl for TCX-FHSTTS-02
Ckt 10	FH	Containment Lighting Xfmr CP2-ELTRNT-14
Ckt 8	FH	Manipulator Crane 1-01 TCX-FHSCMC-01

c) Panelboard 2B10-1-2a

<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>
Ckt 1/Bkr-2	FA	Containment Jib Crane CP2-MEMECA-16 Disconnect Switches CP2-ECDSNC-15 & 16

(continued)

(b) Breakers become electrical penetration overcurrent protection devices only when transfer switch CP2-BSTSNB-01 is aligned to plant support power panel 2B10-1-1-1/04/BKR-1 and 2. Transfer switch CP2-BSTSNB-01 is normally aligned to MCC 2EB1-2/12B/BKR-1 and 2.

B 13.8 ELECTRICAL POWER SYSTEMS

TRB 13.8.32 Containment Penetration Conductor Overcurrent Protection Devices

BASES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance. This is based on the recommendations of Regulatory Guide 1.63, Revision 2, July 1978, "Electric Penetration Assemblies in Containment Structures for Light-Water-Cooled Nuclear Power Plants."

The Surveillance Requirements applicable to circuit breakers provide assurance of breaker reliability by testing the circuit breakers. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a staggered basis to ensure that all breakers are tested during a 72 month period. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

35

The molded case circuit breakers test will be performed in accordance with the procedures which incorporate the requirements of NEMA AB 4, "Guidance for Inspection and Preventive Maintenance of Molded Case Circuit Breakers Used in Commercial and Industrial Applications."

35

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

Revision Record:

Original	Submitted July 21, 1989
Revision 1	September 15, 1989
Revision 2	January 15, 1990
Revision 3	July 20, 1990
Revision 4	April 24, 1991
Revision 5	September 6, 1991
Revision 6	November 22, 1991
Revision 7	March 18, 1992
Revision 8	June 30, 1992
Revision 9	December 18, 1992
Revision 10	January 22, 1993
Revision 11	February 3, 1993
Revision 12	July 15, 1993
Revision 13	September 14, 1993
Revision 14	November 30, 1993
Revision 15	April 15, 1994
Revision 16	May 11, 1994
Revision 17	February 24, 1995
Revision 18	April 14, 1995
Revision 19	May 15, 1995
Revision 20	June 30, 1995
Revision 21	January 24, 1996
Revision 22	February 24, 1997
Revision 23	March 13, 1997
Revision 24	June 26, 1997
Revision 25	July 31, 1997
Revision 26	February 24, 1998
Revision 27	April 14, 1999
Revision 28	April 16, 1999
Revision 29	July 27, 1999
Revision 30	July 27, 1999
Revision 31	August 5, 1999
Revision 32	September 24, 1999
Revision 33	October 7, 1999
Revision 34	June 29, 2000
Revision 35	September 30, 2000

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

TRM-TAB	Original
Record of Changes	July 27, 1999
TRM - Title Page	July 27, 1999
i	October 7, 1999
ii	July 27, 1999
11.0-1	Revision 29
13.0-1	Revision 29
13.0-2	Revision 29
13.1-1	Revision 29
13.1-2	Revision 29
13.1-3	Revision 29
13.1-4	Revision 29
13.1-5	Revision 29
13.1-6	Revision 29
13.1-7	Revision 29
13.1-8	Revision 29
13.1-9	Revision 29
13.1-10	Revision 29
13.1-11	Revision 29
13.1-12	Revision 29
13.1-13	Revision 29
13.1-14	Revision 29
13.1-15	Revision 29
13.1-16	Revision 29
13.1-17	Revision 29
13.1-18	Revision 29
13.1-19	Revision 29
13.1-20	Revision 29
13.1-21	Revision 29
13.1-22	Revision 34
13.1-23	Revision 29
13.1-24	Revision 34
13.2-1	Revision 29
13.2-2	Revision 29
13.2-3	Revision 29
13.2-4	Revision 34
13.2-5	Revision 29
13.3-1	Revision 29
13.3-2	Revision 34
13.3-3	Revision 29
13.3-4	Revision 29
13.3-5	Revision 29
13.3-6	Revision 29
13.3-7	Revision 29
13.3-8	Revision 29
13.3-9	Revision 29
13.3-10	Revision 29

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

13.3-11	Revision 29
13.3-12	Revision 29
13.3-13	Revision 29
13.3-14	Revision 29
13.3-15	Revision 29
13.3-16	Revision 29
13.3-17	Revision 29
13.3-18	Revision 29
13.3-19	Revision 29
13.3-20	Revision 32
13.3-21	Revision 29
13.3-22	Revision 29
13.3-23	Revision 29
13.3-24	Revision 31
13.3-25	Revision 29
13.3-26	Revision 33
13.3-27	Revision 33
13.4-1	Revision 29
13.4-2	Revision 29
13.4-3	Revision 29
13.4-4	Revision 29
13.4-5	Revision 29
13.4-6	Revision 29
13.4-7	Revision 29
13.4-8	Revision 29
13.4-9	Revision 29
13.4-10	Revision 29
13.4-11	Revision 29
13.4-12	Revision 29
13.5-1	Revision 29
13.5-2	Revision 29
13.5-3	Revision 29
13.5-4	Revision 29
13.6-1	Revision 29
13.6-2	Revision 29
13.6-3	Revision 29
13.6-4	Revision 29
13.6-5	Revision 29
13.6-6	Revision 29
13.6-7	Revision 29
13.6-8	Revision 29
13.6-9	Revision 29
13.6-10	Revision 29
13.6-11	Revision 29
13.6-12	Revision 29
13.6-13	Revision 29
13.6-14	Revision 29

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

13.6-15	Revision 29
13.6-16	Revision 29
13.7-1	Revision 29
13.7-2	Revision 29
13.7-3	Revision 29
13.7-4	Revision 29
13.7-5	Revision 29
13.7-6	Revision 29
13.7-7	Revision 29
13.7-8	Revision 29
13.7-9	Revision 30
13.7-10	July 27, 1999
13.7-11	Revision 30
13.7-12	July 27, 1999
13.7-13	Revision 29
13.7-14	Revision 29
13.7-15	Revision 29
13.7-16	Revision 29
13.7-17	Revision 29
13.7-18	Revision 29
13.7-19	Revision 29
13.7-20	Revision 29
13.7-21	Revision 29
13.7-22	Revision 29
13.7-23	Revision 29
13.7-24	Revision 29
13.7-25	Revision 29
13.7-26	Revision 29
13.7-27	Revision 29
13.7-28	Revision 29
13.7-29	Revision 29
13.7-30	Revision 34
13.7-31	Revision 29
13.8-1	Revision 29
13.8-2	Revision 29
13.8-3	Revision 29
13.8-4	Revision 29
13.8-5	Revision 29
13.8-6	Revision 35
13.8-7	Revision 35
13.8-8	Revision 29
13.8-9	Revision 29
13.8-10	Revision 29
13.8-11	Revision 29
13.8-12	Revision 29
13.8-13	Revision 29
13.8-14	Revision 29

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

13.8-15	Revision 29
13.8-16	Revision 29
13.8-17	Revision 29
13.8-18	Revision 29
13.8-19	Revision 29
13.8-20	Revision 29
13.8-21	Revision 29
13.8-22	Revision 29
13.8-23	Revision 29
13.8-24	Revision 29
13.8-25	Revision 29
13.8-26	Revision 29
13.8-27	Revision 29
13.8-28	Revision 29
13.8-29	Revision 35
13.8-30	Revision 35
13.8-31	Revision 29
13.8-32	Revision 29
13.8-33	Revision 29
13.8-34	Revision 29
13.9-1	Revision 29
13.9-2	Revision 29
13.9-3	Revision 29
13.9-4	Revision 29
13.9-5	Revision 29
13.9-6	Revision 29
13.9-7	Revision 30
13.10-1	Revision 29
13.10-2	Revision 30
13.10-3	Revision 29
13.10-4	Revision 29
13.10-5	Revision 29
13.10-6	Revision 29
13.10-7	Revision 29
13.10-8	Revision 29
13.10-9	Revision 29
13.10-10	Revision 29
15.0-1	Revision 34
15.0-2	Revision 34
15.0-3	Revision 29
15.0-4	Revision 29
15.0-5	Revision 29
15.0-6	Revision 29
15.0-7	Revision 29
15.0-8	Revision 29
TRM Bases - Title Page	July 27, 1999
B i	October 7, 1999

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

B ii	July 27, 1999
B 13.0-1	Revision 29
B 13.1-1	Revision 29
B 13.1-2	Revision 29
B 13.1-3	Revision 29
B 13.1-4	Revision 29
B 13.1-5	Revision 29
B 13.1-6	Revision 29
B 13.1-7	Revision 29
B 13.1-8	Revision 29
B 13.1-9	Revision 29
B 13.1-10	Revision 34
B 13.2-1	Revision 29
B 13.2-2	Revision 34
B 13.2-3	Revision 29
B 13.3-1	Revision 34
B 13.3-2	Revision 29
B 13.3-3	Revision 29
B 13.3-4	Revision 29
B 13.3-5	Revision 29
B 13.3-6	Revision 29
B 13.3-7	Revision 33
B 13.3-8	Revision 33
B 13.3-9	Revision 33
B 13.3-10	Revision 33
B 13.3-11	Revision 33
B 13.4-1	Revision 29
B 13.4-2	Revision 29
B 13.4-3	Revision 29
B 13.4-4	Revision 29
B 13.4-5	Revision 29
B 13.4-6	Revision 29
B 13.5-1	Revision 29
B 13.5-2	Revision 29
B 13.6-1	Revision 29
B 13.6-2	Revision 29
B 13.6-3	Revision 29
B 13.7-1	Revision 29
B 13.7-2	Revision 29
B 13.7-3	Revision 29
B 13.7-4	Revision 29
B 13.7-5	Revision 29
B 13.7-6	Revision 29
B 13.7-7	Revision 29
B 13.7-8	Revision 29
B 13.7-9	Revision 29
B 13.7-10	Revision 29

COMANCHE PEAK ELECTRIC STATION UNITS 1 & 2
TECHNICAL REQUIREMENTS MANUAL (TRM)

EFFECTIVE PAGE LISTING

B 13.7-11	Revision 29
B 13.8-1	Revision 29
B 13.8-2	Revision 35
B 13.9-1	Revision 29
B 13.9-2	Revision 29
B 13.9-3	Revision 29
B 13.9-4	Revision 29
B 13.9-5	Revision 29
B 13.9-6	Revision 29
B 13.10-1	Revision 29
B 13.10-2	Revision 29
B 13.10-3	Revision 29
B 13.10-4	Revision 29
EPL-1	September 30, 2000
EPL-2	September 30, 2000
EPL-3	September 30, 2000
EPL-4	September 30, 2000
EPL-5	September 30, 2000
EPL-6	September 30, 2000
EPL-7	September 30, 2000