UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

January 10, 2003

C. L. Terry, Senior Vice President
and Principal Nuclear Officer
TXU Energy
ATTN: Regulatory Affairs
Comanche Peak Steam Electric Station
P.O. Box 1002
Glen Rose, Texas 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 and 2 - INSPECTION REPORT 50-445/02-08; 50-446/02-08

Dear Mr. Terry:

On December 6, 2002, the NRC completed an inspection at your Comanche Peak Steam Electric Station, Units 1 and 2. The enclosed report documents the inspection findings, which were discussed on December 6, 2002 with Mr. Lance Terry, Senior Vice President and Principal Nuclear Officer, and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has identified one violation of regulatory requirements that was evaluated under the risk significance determination process using the Significance Determination Process described in NRC Inspection Manual Chapter 0609. The NRC concluded from this process that the issue has very low safety significance (Green) and no immediate safety impact. Because of the very low safety significance and because the licensee took immediate and effective action to correct the problem, the violation is being treated as a noncited violation, consistent with Section VI.A.1 of the Enforcement Policy. If you deny the noncited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Comanche Peak Steam Electric Station.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Charles S. Marschall, Chief
Engineering and Maintenance Branch
Division of Reactor Safety

Dockets: 50-445; 50-446
Licenses: NPF-87; NPF-89

Enclosure:
NRC Inspection Report
50-445/02-03; 50-446/02-03

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	50-445; 50-446
Licenses:	NPF-87; NPF-89
Report No.:	50-445/02-03; 50-446/02-03
Licensee:	TXU Energy
Facility:	Comanche Peak Steam Electric Station, Units 1 and 2
Location:	FM-56 Glen Rose, Texas
Dates:	October 18 through December 6, 2002
Team Leader	W. McNeill, Senior Reactor Inspector Engineering and Maintenance Branch
Inspectors:	L. Ellershaw, Senior Reactor Inspector Engineering and Maintenance Branch
	P. Goldberg, Senior Reactor Inspector Engineering and Maintenance Branch
	J. Mateychick, Reactor Inspector Engineering and Maintenance Branch
	J. Melfi, Reactor Inspector Engineering and Maintenance Branch
Accompanying Personnel:	J. Leivo, Contractor Beckman and Associates
Approved By:	Charles S. Marschall, Chief Engineering and Maintenance Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000445-02-08, IR 05000446-02-08; TXU Energy; on 11/18/2002-12/06/2002; Comanche Peak Steam Electric Station; Units 1 and 2. Safety system design and performance capability.

The NRC conducted an inspection with a team of five regional inspectors, and one contractor. The inspection identified one Green noncited violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 00609 "Significance Determination Process". Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC described its program for overseeing the safe operation of commercial nuclear power reactors in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Cornerstone: Mitigating Systems

The inspectors identified one finding, which was a violation of NRC regulatory requirements. The inspectors found that the licensee had failed to fully and routinely test the control circuits for the residual heat removal system crosstie valves (two per unit), which are opened from the control room to provide suction to the charging and safety injection pumps during intermediate pressure cold leg recirculation following a loss-of-coolant accident. During the inspection, to address the inspectors' concerns, the licensee performed special tests, which revealed that a limit switch for one interlock for a Unit 1 valve failed to close as required, and wiring connections for another interlock on a Unit 2 valve were loose. The licensee determined that the remaining parts of the degraded interlock circuits were intact, and concluded that these as-found conditions would not have prevented the operator from opening the valves for the recirculation mode. Despite the problems encountered, the system and its trains would have performed their safety function with the proper valve line up.

The inspectors concluded that failure to routinely test these circuits and detect these failures was a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, Test Control. Criterion XI requires a licensee establish a test program to assure identification and performance of all testing required to demonstrate that systems and components will perform satisfactorily in service. The inspectors considered the finding greater than minor because the lack of testing affected the reliability of a mitigating system. The inspectors considered the risk significance to be green because there was not an actual loss of a train of risk significant equipment. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy (50-445;446/0208-01). This violation is in the licensee's corrective action program as SmartForms 2002-004158, 2002-004227, and 2002-004228 (Section 1R21.6.b).

Report Details

1. REACTOR SAFETY

Introduction

The NRC performed an inspection to verify that the licensee adequately preserved the facility safety system design and performance capability and that the licensee preserved the initial design in subsequent modifications of the systems selected for review. The scope of the review also included any necessary nonsafety-related structures, systems, and components that provided functions to support safety functions. The inspection effort also reviewed the licensee's programs and methods for monitoring the capability of the selected systems to perform the current design basis functions. This inspection verified aspects of the initiating events, mitigating systems, and barrier cornerstones.

The licensee based the probabilistic risk assessment model for the Comanche Peak Steam Electric Station on the capability of the as-built safety systems to perform its intended safety functions successfully. The inspectors determined the area and scope of the inspection by reviewing the licensee's probabilistic risk analysis models to identify the most risk significant systems, structures, and components according to their ranking and potential contribution to dominant accident sequences and/or initiators. The inspectors also used a deterministic effort in the selection process by considering recent inspection history, recent problem area history, and all modifications developed and implemented.

The inspectors reviewed in detail the safety injection and the Class 1E 480Vac systems. The primary review prompted parallel review and examination of support systems, such as, electrical power, instrumentation, and related structures and components.

The inspectors assessed the adequacy of calculations, analyses, engineering processes, and engineering and operating practices that used by the licensee to support the performance of the safety systems selected for review and the necessary support systems during normal, abnormal, and accident conditions. Acceptance criteria utilized by the NRC inspection team included NRC regulations, the technical specifications, applicable sections of the Final Safety Analysis Report, applicable industry codes and standards, as well as, industry initiatives implemented by the licensee's programs.

1R02 Evaluations of Changes, Tests, or Experiments (71111.02)

a. Inspection Scope

The inspectors reviewed five licensee-performed 10 CFR 50.59 evaluations to verify that the licensee had appropriately considered the conditions under which the licensee may make changes to the facility or procedures or conduct tests or experiments without prior NRC approval.

The inspectors reviewed an additional 14 licensee-performed 10 CFR 50.59 screenings, in which the licensee determined that evaluations were not required to ensure that the licensee's exclusion of a full evaluation was consistent with the requirements of 10 CFR 50.59.

The inspectors reviewed and evaluated the most recent licensee 10 CFR 50.59 program audit to determine whether the licensee conducted sufficient in-depth analyses of their program to allow for the identification and subsequent resolution of problems or deficiencies.

b. Findings

No findings of significance were identified.

1R21 Safety System Design and Performance Capability (71111.21)

.1 System Requirements

a. Inspection Scope

The inspectors inspected the following attributes of the safety injection and Class 1E 480Vac systems: (1) process medium (water, steam, and air), (2) energy sources, (3) control systems, and (4) equipment protection. The inspectors examined the procedural instructions to verify instructions were consistent with actions required to meet, prevent, and/or mitigate design basis accidents. The inspectors also considered requirements and commitments identified in the Final Safety Analysis Report, technical specifications, design basis documents, and plant drawings.

b. Findings

No findings of significance were identified.

.2 System Condition and Capability

a. Inspection Scope

The inspectors reviewed the periodic testing procedures for the safety injection and Class 1E 480Vac systems to verify that the licensee adequately designed the systems. The inspectors also reviewed the systems' operations by conducting system walkdowns; reviewing normal, abnormal, and emergency operating procedures; and reviewing the Final Safety Analysis Report, technical specifications, design calculations, drawings, and procedures.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The inspectors examined a sample of problems identified by the licensee in the corrective action program to evaluate the effectiveness of corrective actions related to design issues. The sample included open and closed condition reports for the past three years that identified issues affecting the selected systems. Older condition reports that were identified while performing other areas of the inspection were also reviewed.

b. Findings

No findings of significance were identified.

.4 System Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the accessible portions of the safety injection, Class 1E 480Vac systems, and required support systems. The inspectors focused on the installation and configuration of switchgear, motor control centers, manual transfer switches, field cabling, raceways, piping, components, and instruments. During the walkdowns, the inspectors assessed:

- The placement of protective barriers and systems,
- The susceptibility to flooding, fire, or environmental conditions,
- The physical separation of trains and the provisions for seismic concerns,
- Accessibility and lighting for any required local operator action,
- The material condition and preservation of systems and equipment, and
- The conformance of the currently-installed system configurations to the design and licensing bases.

b. Findings

No findings of significance were identified.

.5 Design Review

a. Inspection Scope

The inspectors reviewed the current as-built instrument and control, electrical, and mechanical design of the safety injection and Class 1E 480Vac systems. These reviews

included an examination of design assumptions, calculations, required system thermal-hydraulic performance, electrical power system performance, protective relaying, control logic, and instrument setpoints and uncertainties. The inspectors also performed selected single-failure evaluations of individual components and circuits to determine the effects of such failures on the capability of the systems to perform their design safety functions.

The inspectors inspected calculations, drawings, specifications, vendor documents, Final Safety Analysis Report, technical specifications, emergency operating procedures, and temporary and permanent modifications.

b. Findings

No findings of significance were identified.

.6 Safety System Inspection and Testing

a. Inspection Scope

The inspectors reviewed the program and procedures for testing and inspecting selected components in the safety injection and Class 1E 480Vac systems. The review included the results of surveillance tests required by the technical specifications and selective review of Class 1E control circuits for testability.

b. Findings

(1) Introduction

The inspectors identified a finding concerning the licensee's failure to routinely test certain interlocks, which, if failed, could prevent the control room operators from manually opening the residual heat removal crosstie isolation valves.

(2) Description

Design Basis Document DBD-ME-261, "Safety Injection System," Section 5.2.3, "Cold Leg Recirculation" describes the design basis for operation of the residual heat removal crosstie isolation valves and their interlocks. Plant operators must manually align the valves for the recirulation mode. The design of the interlocks prevents manual opening of the residual heat removal crosstie valves. This assures no open flow path from the reactor coolant system to the reactor water storage tank via the charging or safety injection pump minimum flow lines during the switchover from injection mode to cold leg recirculation mode. It also assures suction from containment sump during the switchover.

The inspectors asked the engineering staff to provide the procedures used to test the interlocks. In response, the engineering staff identified that the only testing of these interlocks occurred during preoperational testing about 10 years ago. The engineering staff also identified that subsequent ASME inservice testing for stroke times exercised the circuits, but these tests did not verify proper operation of the interlocks. The inspectors determined that parallel circuits could mask test results without special provisions, such as lifting leads and/or repositioning valves associated with the interlocks.

To address the inspectors' concern about the absence of testing, the engineering staff initiated SmartForm-2002-004158 and performed tests of the interlocks for the residual heat removal crosstie valves. These tests revealed unsatisfactory conditions. First, a limit switch for one safety injection minimum flow interlock for Unit 1 failed to close as required. Second, before the test, the test technicians found a loose wiring connection on a Unit 2 residual heat removal crosstie valve. The failed limit switch for the safety injection pump minimum flow valve would not have prevented opening of the residual heat removal crosstie valves. The inspectors considered the identification of the failure of the limit switch to be a test failure, but did not consider the loose wire a test failure because it did not affect component function. However, both problems demonstrated the need for testing.

(3) Analysis

The inspectors determined that the significance of this finding affecting the reactor safety cornerstone was GREEN. The inspectors considered the finding greater than minor because of the potential for an undetected failure leading to a system failure. The inspectors considered this violation to be Green because there was not an actual loss of a train of risk significant equipment.

(4) Enforcement

The inspectors concluded that failure to routinely test these circuits and to detect failures was a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, Test Control. Criterion XI requires a licensee to establish a test program to assure identification and performance of all testing required to demonstrate that systems and components will perform satisfactorily in service. Without comprehensive and routine testing of these interlocks, the inspectors concluded that over time additional undetected failures could occur and might prevent remotely opening of the valves. The failures could prevent alignment of the charging pumps and safety injection pumps for cold leg recirculation. The licensee entered this violation in its corrective action program as SmartForms 2002-004158, 2002-004227 and 2002-004228. The inspectors treated this violation as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy (50-445;446/0208-01).

4. OTHER ACTIVITIES (OA)

4OA6 Management Meetings

Exit Meeting Summary

The team leader presented the inspection results to Mr. Lance Terry, Senior Vice President and Principal Nuclear Officer, and other members of licensee management at the conclusion of the onsite inspection on December 6, 2002.

At the conclusion of this meeting, the team leader asked the licensee's management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ENCLOSURE

KEY POINTS OF CONTACT

Licensee

M. Blevins, Deputy to the Senior Vice President
S. Ellis, Operations Manager
R. Flores, Deputy to the Vice President for Engineering
T. Hope, Regulatory Performance Manager
J. Kelley, Vice President, Nuclear Engineering and Support
S. Lakdawala, Engineering Programs Manager
D. Moore, Plant Manager
D. Reimer, Technical Support Manager
L. Terry, Senior Vice President and Principal Nuclear Officer
R. Walker, Regulatory Affairs Manager

NRC

D. Allen, Senior Resident Inspector
A. Sanchez, Resident Inspector

ITEMS OPENED AND CLOSED

Opened and Closed

50-445/0208-01	NCV	Failure to test interlock circuits for residual heat removal system cross-tie valves (Section 1R21.6).

LIST OF DOCUMENTS REVIEWED

The following documents were selected and reviewed by the team to accomplish the objectives and scope of the inspection.

CALCULATIONS

Number	Title	Revision
CN-FSE-99-53	Comanche Peak ECCS Testing Criteria - Expanded Kmin/Kmax Criteria Band for SI Pumps	0
EE-MCC-METHODOLOGY	MCC and Distribution Panel Methodology	5
EE-1E-1EB1	480 Vac Switchgear CP1-EPSWEB-01 (1EB1) Bus Based Calculation	0

Number	Title	Revision
EE-1E-1EB1-1	480 Vac Motor Control Center CP1-EPMCEB-01 (1EB1-1) Bus Based Calculation	1
EE-1E-1EB2	480 Vac Switchgear CP1-EPSWEB-02 (1EB2) Bus Based Calculation	0
EE-1E-1EB2-1	480 Vac Motor Control Center CP1-EPMCEB-02 (1EB2-1) Bus Based Calculation	1
EE-1E-1EB3	480 Vac Switchgear CP1-EPSWEB-03 (1EB3) Bus Based Calculation	0
EE-1E-1EB3-1	480 VAC Motor Control Center CP1-EPMCEB-03 (1EB3-1) Bus Based Calculation	1
EE-1E-1EB3-1	480 Vac Motor Control Center CP1-EPMCEB-03 (1EB3-1) Bus Based Calculation	1
EE-1E-1EB3-2	480 Vac Motor Control Center CP1-EPMCEB-05 (1EB3-2) Bus Based Calculation	1
EE-1E-1EB3-3	480 Vac Motor Control Center CP1-EPMCEB-07 (1EB3-3) Bus Based Calculation	1
EE-1E-1EB3-4	480 Vac Motor Control Center CP1-EPMCEB-09 (1EB3-4) Bus Based Calculation	1
EE-1E-1EB4	480 Vac Switchgear CP1-EPSWEB-04 (1EB4) Bus Based Calculation	0
EE-1E-1EB4-1	480 Vac Motor Control Center CP1-EPMCEB-04 (1EB4-1) Bus Based Calculation	1
EE-1E-1EB4-2	480 Vac Motor Control Center CP1-EPMCEB-06 (1EB4-2) Bus Based Calculation	1
EE-1E-1EB4-4	480 VAC Motor Control Center CP1-EPMCEB-10 (1EB4-4) Bus Based Calculation	1
EE-1E-1ED1	125 Vdc Switchboard CP1-EPSWED-01 (1ED1-1) Bus Based Calculation	0
EE-1E-1ED1-2	125 Vdc Distribution Panel CP1-ECDPED-03 (1ED1-2) Bus Based Calculation	1
EE-1E-XEB1-1	480 Vac Motor Control Center CPX-EPMCEB-07 (XEB1-1) Bus Based Calculation	0

Number	Title	Revision
EE-1E-XEB1-2	480 Vac Motor Control Center CPX-EPMCEB-01 (XEB1-2) Bus Based Calculation	0
EE-1E-XEB1-3	480 Vac Motor Control Center CPX-EPMCEB-03 (XEB3-2) Bus Based Calculation	0
EE-CA-0008-169	Coordination Study – 480 V Class 1E Unitized MCC Buses	3
EE-CA-0008-871	Protective Relay Settings for Safeguard Buses Over/Under Voltage Relays and Associated Time Delay Relays	5
EE-SC-U1-1E	Unit 1 Class 1E System Short Circuit	0
EE-VP-U1-1E	Unit 1 Class 1E System Voltage Profile	0
IC-CA-0232-5158	Instrument Uncertainties and Indicator Loop Accuracy for RWST Level Instrumentation Loops L-0930 through L-0933	0
GENX-185	Aircraft Cable Seismic Restraint	1
FSE/SS-TBX-1634	TBX/TCX Revised ECCS Data/Test Criteria	
FSE/SS-TBX-471	Develop a TBX Safeguards Model to Reproduce Maximum Safeguards Data	
FSE/SS-TBX-1615	TBX ECCS Performance	
ME-CA-0000-1093 Attachment J	Design Margin Review Calculations for MOV 1-8804A, 1-8804B, 2-8804A and 2-8804B	
ME-CA-0000-1093	Design Data for CPSES Unit 1, 2, and Common Safety Related MOVs within the Scope of GL-89-10 [for MOVs 1-8801A/B; 1-8809A/B; 1-8811A/B; 1-8924; 1-LCV-112D/E]	8
ME-CA-0000-4070	Equipment Qualification Total Integrated Dose to ABB Relays in Switchgear Located in Rooms 1-083, 2-083, 1-103, and 2-103	0
R&R-PN-011	SI System Notebook Safety Injection	1
R&R-PN-017	EP System Notebook Electric Power	2
RXE-TA-CP2/0-007	Containment Pressure Trip Setpoints	1
16345-ME(B)-130	Component Cooling Water Surge Tank Pressure	3
16345-ME(B)-346	SI Pump NPSH During Cold Leg Recirculation	0

Number	Title	Revision
16345-ME(B)-389	RWST Setpoints, Volume Requirements, and Time Depletion Analysis [I&C interface review]	7
16346-ME(B)-078	Component Cooling Water Surge Tank Venting	1
2-ME-0260	Determine NPSH Available of SI Pump During Cold Leg Recirculation, and Compare with NPSH Required	0

DESIGN BASIS DOCUMENTS

Number	Description	Revision
DBD-CS-068	Non-ASME Pipe Stress Analysis and Support Design	3
DBD-EE-041	480V and 120V AC Electrical Power System	1
DBD-EE-051	Protection Philosophy	15
DBD-EE-052	Cable Philosophy and Sizing Criteria	10
DBD-ME-261	Safety Injection System	10

DRAWINGS

Drawing Number	Title	Revision
A1-0503	Primary Plant - Unit 1 Containment and Safeguard Buildings Plans at El 852’-6" and 860’-0"	CP-2
BRP-CS-2-AB-092	Pipe Support Location Isometric - Chemical and Volume Control and Boron Thermal Regen	CP-23
CS-2-076-405-A42R	Large Bore Pipe Support	CP-2
E1-0001	Plant One Line Diagram - Units 1 and 2	CP-22
E1-0001, sht A	Plant One Line Diagram - Unit 1 and Common- Distribution Panels	CP-17
E1-0005	480v Auxiliaries One Line Diagram Safeguard Buses	CP-23
E1-0007	Safeguard and Auxiliary Buildings Safeguard 480V MCC’s One Line Diagram	CP-31
E1-0009	Containment and Diesel Generator Safeguard 480V MCC’s One Line Diagram	CP-23
E1-0010	Common Auxiliary and Control Bldgs Safeguard 480V MCC’s One Line Diagram	CP-36
E1-0014	Service Water Intake Structure and Diesel Generator	CP-26

Drawing Number	Title	Revision
	Safeguard 480V One Line Diagram	
E1-0031, sht 45	Schematic Diagram, Safety Injection Pump 11	CP-6
E1-0031, sht 47	Schematic Diagram, Safety Injection Pump 12	CP-6
E1-0031, sht 53	Schematic Diagram, Centrifugal Charging Pump 11	CP-6
E1-0031, sht 55	Schematic Diagram, Centrifugal Charging Pump 11	CP-8
E1-0061, sht 17	Schematic Diagram, 1-LCV-115E	CP-4
E1-0061, sht 94	Schematic Diagram, 1-8511A	CP-8
E1-0061, sht 95	Schematic Diagram, 1-8511B	CP-7
E1-0061, sht 96	Schematic Diagram, 1-8512A	CP-6
E1-0061, sht 97	Schematic Diagram, 1-8512B	CP-7
E1-0062, sht 5	Schematic Diagram, 1-8801A	CP-5
E1-0062, sht 6	Schematic Diagram, 1-8801B	CP-6
E1-0062, sht 7	Schematic Diagram, 1-8802A	CP-4
E1-0062, sht 8	Schematic Diagram, 1-8802B	CP-4
E1-0062, sht 11	Schematic Diagram, 1-8804A	CP-5
E1-0062, sht 11A	Schematic Diagram, 1-8804A	CP-4
E1-0062, sht 12	Schematic Diagram, 1-8804B	CP-8
E1-0062, sht 12A	Schematic Diagram, 1-8804B	CP-2
E1-0062, sht 16	Motor Operated Valve 1-8808A Accumulator Isolation Valve	CP-5
E1-0062, sht 22	Schematic Diagram, 1-8811A	CP-7
E1-0062, sht 023	Schematic Diagram, 1-8811B	CP-8
E1-0062, sht 26	Schematic Diagram, 1-8813	CP-5
E1-0062, sht 27	Schematic Diagram, 1-8814A	CP-7
E1-0062, sht 59	Schematic Diagram, 1-8814B	CP-8
E1-0062, sht 76	Auxiliary Relays 2/1 8808AX and 2/1 8808CX	CP-4
E1-0063, sht 1	Schematic Diagram, 1-8701A	CP-6

Drawing Number	Title	Revision
E1-0063, sht 2	Schematic Diagram, 1-8701B	CP-6
E1-0063, sht 3	Schematic Diagram, 1-8702A	CP-6
E1-0063, sht 4	Schematic Diagram, 1-8702B	CP-7
E1-0064, sht 11	Nitrogen Operated Valve 1-PCV-0455A - Pressurizer Power Relief Valve	CP-6
E1-0064, sht 12	Nitrogen Operated Valve 1-PCV-0456 - Pressurizer Power Relief Valve	CP-6
E1-0067, sht 23	Diesel Generator Air Compressor 1, Tag CP1-MECAED-01	CP-8
E1-0067, sht 39A	Diesel Generator Miscellaneous Switches	CP-1
E1-0067, sht 39A	Diesel Generator Miscellaneous Switches	CP-1
E1-0076, sht 38	Annunciator Lamp Cabinet 1-ALB-4C Schematic Diagram	CP-2
E2-0001	Plant One Line Diagram	CP-3
E2-0005	480v One Line Diagram Safeguard Buses	CP-12
E2-0007, sht C	Safeguard and Auxiliary Buildings Safeguard 480V MCC's One Line Diagram	CP-23
E2-0024, sht 3C	Plant Support 480 VAC Distribution Panels One Line Diagram	CP-10
E2-0008, Sht A	Containment & Circulating Water Intake Structure Normal 480V MCC's One Line Diagram	CP-12
E2-0009	Containment and Diesel Generator Safeguard 480V MCC's One Line Diagram	CP-13
E2-0014	Service Water Intake Structure and Diesel Generator Safeguard 480V MCC's One Line Diagram	CP-13
E2-0024, sht 3D	Plant Support 480 VAC Distribution Panels One Line Diagram	CP-17
M1-0215, sht D	Flow Diagram Starting Air Piping, CP1-MEDGEE-01	CP-22
M1-0260	Flow Diagram, Residual Heat Removal System	CP-30
M1-0261, sht 1	Flow Diagram, Safety Injection System	CP-20
M1-0262, sht 2	Flow Diagram, Safety Injection System	CP-22
M1-0263, sht B	Flow Diagram, Safety Injection System	CP-15
M1-0263, sht 5	Flow Diagram, Safety Injection System	CP-13

Drawing Number	Title	Revision
M2-0229	Flow Diagram, Component Cooling Water System	CP-17
M2-0229, sht A	Flow Diagram, Component Cooling Water System	CP-12
M2-0229, sht B	Flow Diagram, Component Cooling Water System	CP-14
M2-0230	Flow Diagram, Component Cooling Water System	CP-14
M2-0230, sht A	Flow Diagram, Component Cooling Water System	CP-6
M2-0231	Flow Diagram, Component Cooling Water System	CP-14
M2-0231, sht A	Flow Diagram, Component Cooling Water System	CP-154
M2-0260	Flow Diagram, Residual Heat Removal System	CP-16
M2-0263	Safety Injection System	CP-10
VL0805	Nozzle Type Relief Valve	CP-0
VL-93-119	Nozzle Type Relief Valve	CP-B
212B7150, sht 15	MCC Space Heaters	5
2323-A1-0501	Primary Plant - Unit 2 Containment and Safeguard Building Plans El. 808'-0" and 810'-6"	CP-1
2323-A1-0502	Primary Plant - Unit 1 Containment and Safeguard Buildings - Plans at El. 831'-6" and 832'-6"	CP-1
2323-A1-0503	Primary Plant - Unit 1 Containment and Safeguard Buildings - Plans at El. 852'-6" and 860'-0"	CP-2
2323-A1-0507	Primary Plant Auxiliary and Electrical Control Building Floor Plan El. 778' and 790'-6"	CP-1
2323-A1-0508	Primary Plant Auxiliary and Electrical Control Building Floor Plans El. 807'-0" and 810'-6"	CP-1
2323-A1-0513	Electrical and Control Building Floor Misc. Plans and Details	CP-1
2323-A2-0500	Primary Plant - Unit 2 Containment and Safeguard Buildings Plans at El. 773' and 790'-6"	5

10 CFR 50.59 Evaluations

59EV-2001-000751-01-00
59EV-2002-000587-01-00

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ENGINEERING EVALUATIONS

Number		
EVAL-1999-002570-01-00		
EVAL-1999-00303-01-00	Evaluate Current IST Test Data for SIP the CPSES IST Program	1-02 Pursuant to
EVAL-2001-001-60-01-00	Evaluate IST Data for SI Pump 1-01	

MODIFICATIONS

DM # 98-061, “Convert TM 2-96-008 to a Permanent Installation (SI Relief System),” Revision 0
TM # 94-008, “Gagging of Component Cooling Water Thermal Relief Valves,” Revision 0
DCN-8573, “Revise the DBD and Flow Diagrams as Shown on the Attached Pages,” Revision 0

ONE FORMS

92-1129	94-0990	97-1073	97-1390	98-0440
92-733	96-0408	97-1129	97-1417	98-0452
94-0889	97-0814	97-1344	97-1556	98-0628

PROCEDURES

Number	Title	Revision
ECE-2.13-06	Comanche Peak Engineering Reports	3
ECE-2.25	Equipment Qualification Program	EDCN #6
ECE-5.01	Design Control Program	4
ECE-5.01-01	Design Basis Documents	7
ECE-5.01-03	Design Change Notices and Related Process Documentation	8
ECE-5.02	Specifications	8
ECE-5.03	Calculations	12
ECE-5.05	Design Drawings and Special Documents	8
EOS-1.3B	Transfer to Cold Leg Recirculation	1

Number	Title	Revision
INC-7532A	Sensor Response Time Test – Containment Pressure, Channel 0934	5
IST-1301	Inservice Testing of Motor Operated Valves	1
MSM-GO-0205	Freeze Seal Formation and Maintenance	2
MSM-GO-0204	Safety Valve and Relief Valve Bench Testing	5
MSM-GO-0203	Flange Alignment and Fastener Torque Data	3
MSM-G0-0208	Gagging of Valves	0
MSM-CO-8871	Crosby Safety Valve Maintenance	1
OPT-201A	Charging System	12
OPT-432B	Train A Safety Injection Test	3
OPT-508B	CVCS Section XI Valves	8
OPT-510B	SI Section XI Valves	7
OPT-512B	RHR and SI Subsystem Valve Test	8
OPT-513A	SI Pump Performance and Flow Balancing	0
OPT-523A	CCP Performance and Flow Balancing	0
OPT-204A	SI System, Surveillance Test	10
PPT-SO-6004	Motor Operated Rising Stem Valve Risk-Informed IST Testing	2
SOP-103A	Chemical and Volume Control System	13
SOP-201A	Safety Injection System	11
STA-606	Control of Maintenance and Work Activities	26
STA-422	Processing of SmartForms	18
STA-421	Initiation of SmartForms	10
STA-702	Surveillance Program	16
STA-707	10 CFR 50.59 Reviews	16
WCI-606	Work Control Process	4

TECHNICAL EVALUATIONS

TE-SE-91-393
TE-92-765
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TRAINING MANUALS

Number	Title	Revision
OP12.GFE.CZF	Breakers, Relays and Disconnects	1
OP51.SYS.S11	Emergency Core Cooling System	0
OP51.SYS.AC2	6.9Kv and 480 V Electrical Distribution	3

10 CFR 50.59 SCREENINGS

59SC-1999-001397-01-02	59SC-2001-001972-01-00	59SC-2002-001675-01-00
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WPT-12421	January 4, 1990
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MISCELLANEOUS DOCUMENTS

Final Safety Analysis Report, Amendment 98, Supplement 1

Technical Specifications, Amendment 100

CPSES 10 CFR 50.59 Resource Manual, Revision 1

CPSES Inservice Testing Plan for Pumps and Valves, Revision 17

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