



UNITED STATES
NUCLEAR REGULATORY COMMISSION
611 RYAN PLAZA DRIVE, SUITE 400
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October 29, 2007

Mike Blevins, Senior Vice President
and Chief Nuclear Officer
Luminant Generation Company LLC
ATTN: Regulatory Affairs
Comanche Peak Steam Electric Station
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION - NRC INTEGRATED
INSPECTION REPORT 05000445/2007004 AND 05000446/2007004

Dear Mr. Blevins:

On September 21, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Comanche Peak Steam Electric Station, Units 1 and 2, facility. The enclosed integrated report documents the inspection findings that were discussed on October 4, 2007, with you and members of your staff.

This inspection examined activities conducted under your licenses as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified. However, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. The NRC is treating this violation as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance of the violation and because it is entered into your corrective action program. If you contest this non-cited 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, DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011-4005; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Comanche Peak Steam Electric Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be 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/

Claude E. Johnson, Chief
Project Branch A
Division of Reactor Projects

Dockets: 50-445

50-446

Licenses: NPF-87

NPF-89

Enclosure:

NRC Inspection Report 05000445/2007004

and 05000446/2007004

w/attachment: Supplemental Information

cc w/enclosure:

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SUNSI Review Completed: __yes__ ADAMS: Yes No Initials: __CEJ__
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R:_REACTORS_CPSES\2007\CP2007-04 DBA.wpd

RIV:RI:DRP/A	SRI:DRP/A	C:DRS/PSB	C:DRS/EB1
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E=DBAllen	/RA/	/RA/	/RA/
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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 50-445, 50-446
Licenses: NPF-87, NPF-89
Report: 05000445/2007004 and 05000446/2007004
Licensee: Luminant Generation Company LLC
Facility: Comanche Peak Steam Electric Station, Units 1 and 2
Location: FM-56, Glen Rose, Texas
Dates: June 23 through September 21, 2007
Inspectors: D. Allen, Senior Resident Inspector
A. Sanchez, Resident Inspector
T. Farnholtz, Senior Project Engineer
R. Lantz, Senior Emergency Preparedness Inspector
B. Tindell, Operations Engineer, Operations Branch
Approved By: C. E. Johnson, Chief, Projects Branch A
Division of Reactor Projects
Attachment: Supplemental Information

SUMMARY OF FINDINGS

IR 05000445/2007004, 05000446/2007004; 06/23/2007-09/21/2007; Comanche Peak Steam Electric Station, Units 1 and 2. Integrated Resident and Regional Report. No findings identified.

This report covered a 3-month period of inspection by two resident inspectors, a Senior Project Engineer and an announced emergency preparedness inspection by a Senior Emergency Preparedness Inspector and an Operations Engineer. One licensee identified violation is documented in this report. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609 "Significance Determination Process." Findings for which the Significance Determination Process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

None

B. Licensee-Identified Violations

A violation of very low safety significance, which has been identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into their corrective action program. This violation and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Comanche Peak Steam Electric Station (CPSES) Unit 1 operated at 100 percent power for the duration of the inspection period.

CPSES Unit 2 operated at 100 percent power for the duration of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors: (1) walked down portions of the below listed risk important systems and reviewed plant procedures and documents to verify that critical portions of the selected systems were correctly aligned; and (2) compared deficiencies identified during the walkdown to the licensee's corrective action program to ensure problems were being identified and corrected.

- Unit 2 Residual Heat Removal (RHR) System 2-01 in accordance with Operations Testing Manual (OPT) Procedure OPT-203B, "Residual Heat Removal System," Revision 11, while RHR System 2-02 (Train B) was inoperable for scheduled surveillance testing on August 2, 2007
- Unit 2 Emergency Diesel Generator (EDG) 2-01 in accordance with System Operating Procedure (SOP) SOP-609B, "Diesel Generator System," Revision 9, while EDG 2-02 was out of service for maintenance on September 5, 2007
- Unit 2 Train B boric acid transfer system in accordance with SOP-105, "Concentrated Boric Acid System," Revision 12, while the Train A boric acid system was out of service for scheduled replacement on September 10, 2007

The inspectors completed three samples.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Fire Area Tours (71111.05Q)

a. Inspection Scope

The inspectors walked down the listed plant areas to assess the material condition of active and passive fire protection features and their operational lineup and readiness. The inspectors: (1) verified that transient combustibles and hot work activities were controlled in accordance with plant procedures; (2) observed the condition of fire detection devices to verify they remained functional; (3) observed fire suppression systems to verify they remained functional; (4) verified that fire extinguishers and hose stations were provided at their designated locations and that they were in a satisfactory condition; (5) verified that passive fire protection features (electrical raceway barriers, fire doors, fire dampers, steel fire proofing, penetration seals, and oil collection systems) were in a satisfactory material condition; (6) verified that adequate compensatory measures were established for degraded or inoperable fire protection features; and (7) reviewed the corrective action program to determine if the licensee identified and corrected fire protection problems.

- Fire Zones EC49 and EH51 – Unit 1 Train B inverter room and Train B battery Room on July 14, 2007
- Fire Zones EC48 and EH50 – Unit 2 Train B inverter room and Train B battery Room on July 14, 2007
- Fire Zones EH53 and EH56 – Unit 1 Train A inverter room and Train A battery Room on July 14, 2007
- Fire Zones EH52 and EH55 – Unit 2 Train A inverter room and Train A battery Room on July 14, 2007
- Fire Zones 2SG010A and 2SG010B - Unit 2 Train A EDG rooms on the 810 and 844 foot elevations on August 7, 2007
- Fire Zone 2SD009 - Unit 2 Train A safety-related switchgear room on the 810 foot elevation on August 9, 2007

The inspectors completed six samples.

b. Findings

No findings of significance were identified.

.2 Annual Fire Drill (71111.05A)

a. Inspection Scope

The inspector observed three fire brigade drills, performed on June 18, June 26 and August 29, 2007, to evaluate the readiness of licensee personnel to prevent and fight fires, including the following aspects: (1) use of protective clothing; (2) use of breathing apparatuses; (3) placement and use of fire hoses; (4) entry into the fire area; (5) use of firefighting equipment; (6) brigade leader command and control; (7) communications between the fire brigade and control room; (8) searches for fire victims and fire propagation; (9) use of fire pre-plans; (10) adherence to the drill scenario; and (11) the drill critique.

The inspector completed one sample.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

Internal Flood Protection

a. Inspection Scope

The inspectors: (1) reviewed the Updated Final Safety Analysis Report (UFSAR), the internal flooding analysis, and plant procedures to identify areas that can be affected by internal flooding; (2) reviewed the corrective action program to determine if the licensee identified and corrected flooding problems; (3) verified that operator actions for coping with flooding can reasonably achieve the desired outcomes; and (4) walked down the below listed areas to verify the adequacy of: (a) equipment seals located below the flood line, (b) floor and wall penetration seals, (c) watertight door seals, (d) common drain lines and sumps, (e) sump pumps, level alarms, and control circuits, and (f) temporary or removable flood barriers.

- Units 1 and 2 Electrical and Control Building, Safety Chiller Rooms X-115A and X-115B, walkdown on September 14, 2007

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification (71111.11Q)

a. Inspection Scope

On September 11, 2007, the inspectors observed two training simulator sessions with two different operating crews. The first training scenario began with a short event to practice actions for a pressurizer pressure transmitter that failed high. The main scenario began with Unit 1 at 100 percent power. The following events then took place: (1) a feedwater heater tube leak which required operators to reduce reactor power; (2) a trip of the 1A main feedwater pump which forced a power runback to 700 MWe; (3) a subsequent failure of the 1B main feedwater pump which required operators to manually trip the unit; (4) failure of the main turbine to immediately trip causing a Safety Injection; and (5) a complete loss of heat sink. The crew stepped through emergency operating procedures and established bleed and feed of the pressurizer and restored condensate flow to one steam generator. The emergency plan was entered and required a Site Area Emergency declaration.

The second scenario began with a short event to practice immediate actions for a reactor trip and to emphasize emergency operating procedure fold out page usage. The main scenario began with Unit 1 at 100 percent power. The following events then took place: (1) loss of cooling to the Main Transformer 1MT1; (2) grid voltage and frequency decrease which required a decrease in turbine load to maintain MVARs; (3) a loss of the 345 KV West Bus; (4) loss of the 345 KV East Bus which resulted in a reactor trip; and (5) loss of Startup Transformer XST1 and a trip of EDG 1-01. The crew used emergency operating procedures and established stable reactor coolant system inventory control and cooling with one safeguards bus energized from EDG 1-01. The emergency plan was entered and required a Site Area Emergency declaration.

Simulator observations included formality and clarity of communications, group dynamics, the conduct of operations, procedure usage, command and control, and activities associated with the emergency plan. The inspectors also verified that evaluators and operators were identifying crew performance deficiencies as applicable.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Maintenance Effectiveness Inspection

a. Inspection Scope

The inspectors reviewed the two maintenance activities listed below to: (1) verify the appropriate handling of structure, system, and component (SSC) performance or condition problems; (2) verify the appropriate handling of degraded SSC functional performance; (3) evaluate the role of work practices and common cause problems; and

(4) evaluate the handling of SSC issues reviewed under the requirements of the Maintenance Rule, 10 CFR Part 50, Appendix B, and the Technical Specifications (TS).

- Unit 1 Safety Injection Accumulator 1-02 inoperability, accumulator pressure falling below technical specification limit due to the failure of a check valve to initially seat, thus causing the system to be placed into (a)(1) status for exceeding availability and reliability. The issue was placed into the licensee's corrective action program as Smart Forms (SMF) SMF-2007-001375 and SMF-2007-002232.
- Unit 2 Turbine Driven Auxiliary Feedwater Pump (TDAFWP) 2-01 Discharge Valve 2-HV-2460, which feeds Steam Generator 2, extended unavailability due to less than adequate work planning. This issue was placed into the licensee's corrective action program as SMF-2007-002213.

The inspectors completed two samples.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the five below listed assessment activities to verify: (1) performance of risk assessments when required by 10 CFR 50.65(a)(4) and site procedures prior to changes in plant configuration for maintenance activities and plant operations; (2) the accuracy, adequacy, and completeness of the information considered in the risk assessment; (3) that the licensee recognizes, and/or enters as applicable, the appropriate risk category according to the risk assessment results and site procedures; and (4) the licensee identified and corrected problems related to maintenance risk assessments.

- Emergency Electric Curtailment Plan (EECP) Step 1, declared by Electric Reliability Council of Texas (ERCOT), when EDG 1-02 was scheduled for surveillance testing on August 1, 2007
- Emergent work for cleaning of the of Unit 2 Component Cooling Water (CCW) Heat Exchanger 2-02 due to fouling on the service water side, August 10, 2007
- Emergent work for cleaning of the Unit 2 EDG Jacket Water Heat Exchanger 2-02 due to fouling on the service water side, August 10, 2007
- Failure of Unit 2 Loop 4 Tcold Instrument 2-TI-411A, causing automatic control rod motion during reactor incore flux mapping activities and related rescheduled activities, on September 4, 2007

- Electric grid disturbance and ERCOT declared EECF Step 1, when EDG 2-02 was scheduled for maintenance and surveillance testing on September 5, 2007

The inspectors completed five samples.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors: (1) reviewed plant status documents such as operator shift logs, emergent work documentation, deferred modifications, and standing orders to determine if an operability evaluation was warranted for degraded components; (2) referred to the UFSAR and design basis documents to review the technical adequacy of licensee operability evaluations; (3) evaluated compensatory measures associated with operability evaluations; (4) determined degraded component impact on any Technical Specifications; (5) used the significance determination process (SDP) to evaluate the risk significance of degraded or inoperable equipment; and (6) verified that the licensee has identified and implemented appropriate corrective actions associated with degraded components. The inspectors interviewed appropriate licensee personnel to provide clarity to operability evaluations, as necessary. Specific operability evaluations reviewed are listed below:

- Quick Turnaround Evaluation (QTE) 2007-002401-01-00, document risk evaluation that is required by Surveillance Requirement 3.0.3 for the Unit 1 TDAFWP 1-01 associated with a missed surveillance test, on August 6, 2007
- QTE-2007-002447-02-00, document operability evaluation for open Interim Design Changes (IDAs) on two of four Atmospheric Relief Valves (ARVs) on Unit 1, reviewed on August 10, 2007
- Evaluation (EVAL) EVAL-2007-002358-03-00, evaluation of the operability of the Unit 1 Safety Chiller 1-06 from a fire in the Safety Chiller 1-05 room due to a conduit that was discovered not to have Thermo-Lag installed, reviewed August 13, 2007
- SMF-2007-2688-00, documenting the operability of the Unit 2 Train B EDG 2-02 following a failure of Relay 2-TB-3418-18 that caused a EDG 2-02 TRBL alarm in the control room for high jacket water temperature, reviewed on September 14, 2007

The inspectors completed four samples.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors selected the six below listed post-maintenance test activities of risk-significant systems or components. For each item, the inspectors: (1) reviewed the applicable licensing basis and/or design basis documents to determine the safety functions; (2) evaluate the safety functions that may have been affected by the maintenance activity; and (3) reviewed the test procedure to ensure it adequately tested the safety function that may have been affected. The inspectors either witnessed or reviewed test data to verify that acceptance criteria were met, plant impacts were evaluated, test equipment was calibrated, procedures were followed, jumpers were properly controlled, the test data results were complete and accurate, the test equipment was removed, the system was properly realigned, and deficiencies during testing were documented. The inspectors also reviewed the UFSAR to determine if the licensee identified and corrected problems related to post-maintenance testing.

- Unit 2 TDAFWP 2-01 Discharge Valve 2-HV-2460, in accordance with procedures OPT-206B, "AFW System," Revision 19 and OPT-603B, "TDAFW Accumulator Check Valve Leak Test," Revision 4, following planned valve maintenance, performed on July 12, 2007
- Unit 2 Train B Refueling Water Storage Tank (RWST) to Containment Spray Pumps 2-02/2-04 Suction Valve 2-HV-4759 stroke test in accordance with Testing Manual Procedure PPT-S0-6005, "Motor Operated Quarter Turn Valve Risk-Informed IST Testing," Revision 1, following readjustment of valve packing on July 30, 2007
- Unit 2 EDG 2-02 surveillance test, in accordance with OPT-214B, "Diesel Generator Operability Test", Revision 13, following replacement of a cable and circuit board in the local control panel per Work Order (WO) WO-4-07-174908-01, performed on September 5, 2007
- Boric Acid Transfer Pump 2-01, in accordance with OPT-202, "Boration System Operability Verification," Revision 15, following an attempted preventive maintenance pump replacement that was not accomplished due to issues with the electrical leads, performed on September 11, 2007
- Unit 2 Pressurizer Relief Tank 2-01 Containment Isolation Valve 2-8026, in accordance with OPT-503B, "CNTMT ISOL Valves ASME Testing," Revision 11, following solenoid valve replacement activities per WO-3-03-344098-01, performed on September 11, 2007
- Unit 2 TDAFWP 2-01 Discharge Valves 2-HV-2461 and 2462, in accordance with procedures OPT-206B, "AFW System," Revision 19 and OPT-603B, "TDAFW Accumulator Check Valve Leak Test," Revision 4, following planned valve maintenance per WO-3-05-344085-T1 and T2, performed on September 14, 2007

The inspectors completed six samples.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors evaluated the adequacy of periodic testing of important nuclear plant equipment, including aspects such as preconditioning, the impact of testing during plant operations, and the adequacy of acceptance criteria. Other aspects evaluated included test frequency and test equipment accuracy, range, and calibration; procedure adherence; record keeping; the restoration of standby equipment; test failure evaluations; system alarm and annunciator functionality; and the effectiveness of the licensee's problem identification and correction program. The following surveillance test activities were observed and/or reviewed by the inspectors:

- Unit 1 Train B EDG surveillance in accordance with OPT-214A, "Diesel Generator Operability Test," Revision 19, observed on August 1, 2007
- Unit 2 Train B RHR pump (inservice test) surveillance in accordance with SOP-102B, "Residual Heat Removal System," Revision 10 and OPT-203B, "Residual Heat Removal System," Revision 11, observed on August 2, 2007
- Units 1 and 2 Train A Class 1E Station Batteries CP1-EPBTED-01, CP1-EPBTED-03, CP2-EPBTED-01, and CP2-EPBTED-03 weekly surveillance testing in accordance with Maintenance Section – Electrical (MSE) Procedure MSE-SO-5000, "Class 1E Station Batteries Weekly-Monthly-Quarterly Surveillance Tests," Revision 4, observed on September 11, 2007
- Unit 2 Safety Injection Pump 2-02 quarterly surveillance (inservice test) in accordance with OPT-204B, "SI System," Revision 11, reviewed on September 12, 2007
- Unit 2 TDAFWP 2-01 surveillance (inservice test) in accordance with OPT-206B, "AFW System," Revision 19, reviewed on September 14, 2007

The inspectors completed five samples.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the UFSAR, plant drawings, procedure requirements, and TSs to ensure that the two below listed temporary modifications were properly implemented. The inspectors: (1) verified that the modifications did not have an effect on system operability/availability; (2) verified that the installation was consistent with modification documents; (3) ensured that the post-installation test results were satisfactory and that the impact of the temporary modifications on permanently installed SSCs were supported by the test; (4) verified that the modifications were identified on control room drawings and that appropriate identification tags were placed on the affected drawings; (5) verified that appropriate safety evaluations were completed; and (6) reviewed and verified compensatory actions as applicable. The inspectors verified that CPSES identified and implemented any needed corrective actions associated with temporary modifications.

- SMF-2006-003904 and associated EVAL-2006-003904-01 which describes the removal of insulation associated with the Pressurizer Safety Valve 2-8010C to stop minor seat leakage by maintaining a loop seal, reviewed on September 4-6, 2007
- Minor Change Authorization, MCA-2007-2268-01-00 which provides alternate means to sample the reactor coolant system (while penetration MIV-0001 is isolated for a leaking containment isolation valve) by providing a cross tie from the chemical volume and control system sample line to the pressurizer steam space sample line and isolation capability in the sample grab hood assembly, reviewed on September 20, 2007

The inspectors completed two samples.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The inspectors reviewed the objectives and scenario for the 2007 biennial emergency plan exercise to determine if the exercise would acceptably test major elements of the emergency plan. The scenario simulated a plant fire, a reactor coolant leak that degraded into a rupture and loss of reactor coolant into containment, a failure of control rods to insert on the scram, then a failure of the containment equipment hatch seal, resulting in a radiological release to the environment. The scenario was designed to demonstrate the licensee's capabilities to implement the emergency plan.

The inspectors evaluated exercise performance by focusing on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations, in the Simulator Control Room and the following dedicated emergency response facilities:

- Technical Support Center
- Operations Support Center
- Emergency Operations Facility

The inspectors also assessed recognition of and response to abnormal and emergency plant conditions, the transfer of decision making authority and emergency function responsibilities between facilities, onsite and offsite communications, protection of emergency workers, emergency repair evaluation and capability, and the overall implementation of the emergency plan to protect public health and safety and the environment. The inspectors reviewed the current revision of the facility emergency plan, and emergency plan implementing procedures associated with operation of the above facilities and performance of the associated emergency functions. These procedures are listed in the Attachment to this report.

The inspectors compared the observed exercise performance with the requirements in the facility Emergency Plan, 10 CFR 50.47(b), 10 CFR Part 50, Appendix E, and with the guidance in the emergency plan implementing procedures and other federal guidance.

The inspectors attended the post-exercise critiques in each of the above facilities to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent formal presentation of critique items to plant management.

The inspectors completed one sample during the inspection.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

For the one below listed drill and simulator-based training evolution contributing to drill/exercise performance, emergency response organization, and performance indicators, the inspectors: (1) observed the training evolution to identify any weaknesses and deficiencies in classification, notification, and protective action requirements development activities; (2) compared the identified weaknesses and deficiencies against licensee identified findings to determine whether the licensee is properly identifying failures; and (3) determined whether licensee performance is in accordance with the guidance of the Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 4, acceptance criteria.

- July 25, 2007, simulator and emergency operations facility combined drill, the unit was operating in Mode 1 reducing reactor power when indications of a steam generator tube rupture were noted, resulting in the declaration of a Site Area Emergency.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

.1 Mitigating Systems Performance Index

a. Inspection Scope

The inspector reviewed a sample of the performance indicator (PI) submitted by the licensee for the Mitigating Systems Performance Index (MSPI) to verify that the licensee's data was reported in accordance with the requirements contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 5. The inspector's review included: (1) raw unavailability and reliability data; (2) Consolidated Data Entry (CDE) MSPI Reports for unavailability and unreliability indexes; (3) MSPI Bases Document for CPSES, Revision 2; (4) operations' limiting condition for operation electronic database; and (5) corrective action documents. The information reviewed covered the period of July 2006 through June 2007. The inspector also interviewed the licensee personnel accountable for collecting and evaluating the PI data. The inspector also compared this information to the information available on the NRC web page for Unit 1 and Unit 2 for the specific systems:

- High pressure safety injection
- Auxiliary feedwater system
- Emergency AC power system
- Residual heat removal system
- Support cooling water system

The inspectors completed 10 samples.

b. Findings

No findings of significance were identified.

.2 Emergency Preparedness Performance Indicators

a. Inspection Scope

The inspectors reviewed licensee evaluations for the three emergency preparedness cornerstone performance indicators of Drill and Exercise Performance, Emergency Response Organization Participation, and Alert and Notification System Reliability, for the period July, 2006 through June 2007. The definitions and guidance of NEI 99-02, "Regulatory Assessment Indicator Guideline," Revisions 3 and 4, and Emergency Planning Staff Guideline 20, "NRC Performance Indicators," Revision 11, were used to verify the accuracy of the licensee's evaluations for each performance indicator reported during the assessment period.

The inspectors reviewed a sample of drill and exercise scenarios and licensed operator simulator training sessions, notification forms, and attendance and critique records associated with training sessions, drills, and exercises conducted during the verification period. The inspectors reviewed selected emergency responder qualification, training, and drill participation records. The inspectors reviewed alert and notification system testing procedures, maintenance records, and a sample of siren test records. The inspector also reviewed other documents listed in the Attachment to this report.

The inspectors completed three samples during the inspection.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

The inspectors performed a daily screening of items entered into CPSES's corrective action program. This assessment was accomplished by reviewing SMFs and event trend reports, and attending daily operational meetings. The inspectors: (1) verified that equipment, human performance, and program issues were being identified by CPSES at an appropriate threshold and that the issues were entered into the corrective action program; (2) verified that corrective actions were commensurate with the significance of the issue; and (3) identified conditions that might warrant additional follow-up through other baseline inspection procedures.

b. Findings

No findings of significance were identified.

.2 Selected Issue Follow-Up Inspection

a. Inspection Scope

This issue was selected by the inspectors because of recent industry issues with tin whiskers and the potential to become an initiating event. The inspectors reviewed NRC Information Notice IN-2005-25, "Inadvertent Reactor Trip and Partial Safety Injection Actuation Due to Tin Whisker," dated August 25, 2005, Westinghouse Technical Bulletin TB-05-4, "Potential Tin Whiskers on Printed Circuit Board Components," dated June 8, 2005, and the corrective action document that captured this industry issue, SMF-2005-001839. The inspector also interviewed the system engineer for the solid state protection system.

The inspectors verified that the licensee had: (1) completely and accurately identified the problem in a timely manner; (2) evaluated and dispositioned the operability/reportability issue; (3) considered the of extent of condition, generic implications, common cause, and previous occurrences; (4) classified and prioritized the resolution of the problem; (5) identified of root and contributing causes of the problem; (6) identified corrective actions; and (7) completed the corrective actions in a timely manner.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 (Closed) Licensee Event Report (LER) 50-446/2006-001: Condition Prohibited by Technical Specification due to a Failed Air Valve for an Atmospheric Relief Valve Actuator

On June 25, 2006, the licensee observed an oscillation in the air supply to the actuator of the ARV 2-PV-2328 on the Unit 2 Main Steam Line 4. Troubleshooting identified that the manual isolation valve in the air supply from the accumulator to the air operator of the ARV was stuck closed. The valve was replaced and sent to an off-site investigator for failure analysis. The results of the failure analysis indicated that a manufacturing defect and misalignment between the seat and disk led to the valve sticking closed. The failure evaluation report concludes that there was a misalignment of the disk with respect to the body, and that flash around the outlet port (present when the valve was new) also appeared to play a significant role in immobilization of the disk in the closed position. The report suggested that repeated closure of the misaligned disk lead to accumulated damage that ultimately immobilized the disk in the closed position. Identification of this manufacturing defect at the time this valve was installed in the plant was not reasonable since the defect was internal and the damage was accumulated through repeated operation of the valve over time therefore, no performance deficiency on the part of the licensee was identified. The enforcement aspects of the violation are discussed in Section 4OA7. This LER is closed.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On August 30, 2007, the lead inspector presented the biennial emergency preparedness exercise inspection results to Mr. M. Blevins, Senior Vice President and Chief Nuclear Officer, and other members of his staff who acknowledged the findings. The inspector confirmed that proprietary information was not provided or examined during the inspection.

On October 4, 2007, the resident inspection results were presented to Mr. M. Blevins, Senior Vice President and Chief Nuclear Officer, and other members of CPSES management. CPSES acknowledged the findings presented.

The inspectors asked CPSES whether any materials examined during the inspection should be considered proprietary. Proprietary information was reviewed by the inspectors and left with CPSES at the end of the inspection.

4OA7 Licensee Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy for being dispositioned as an NCV.

- TS 3.7.4, Condition A (One required ARV line inoperable), requires that the inoperable ARV line be restored to operable status within 7 days. Contrary to this requirement, on June 25, 2006, the licensee identified that a valve in the air supply from the accumulator to the air operator of the ARV on the Unit 2 Main Steam Line 4 had failed in the closed position due to a manufacturing defect. As a result of this condition, the ARV was inoperable from June 8, 2006 till June 27, 2006, a period of approximately 19 days. This issue was entered into the licensee's corrective action program as SMF-2006-002179. This finding is of very low safety significance because the normal instrument air supply (non-safety related) was available.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

CPSES personnel

M. Blevins, Senior Vice President and Chief Nuclear Officer
M. Bozeman, Supervisor, Emergency Planning
T. Clouser, Manager, Shift Operations
K. Faver, Sr. Nuclear Specialist, Emergency Planning
R. Fishencord, Sr. Nuclear Specialist, Emergency Planning
R. Flores, Site Vice President
J. Gallman, Senior Nuclear Analyst (Work Week Coordinator)
D. Holland, Senior Nuclear Analyst (Work Week Coordinator)
A. Heap, System Engineer
T. Hope, Manager, Regulatory Performance
M. Kanavos, Plant Manager
S. Karpyak, Risk & Reliability Engineering Supervisor
R. Kidwell, Sr. Nuclear Technologist, Regulatory Affairs
G. Krishnan, Procurement Engineering & Program Manager, SHAW
D. Kross, Director, Operations
F. Madden, Director, Regulatory Affairs
S. Maier, Design Engineering Analysis Manager, Technical Support
M. McCutchen, System Engineer
J. Mercer, Maintenance Rule Coordinator
J. Meyer, Technical Support Manager
W. Morrison, Maintenance Smart Team Manager
N. Platt, Simulator instructor
D. Reimer, Manager of Plant Support
T. Robison, Sr. Nuclear Specialist, Emergency Planning
J. Seawright, Consulting Engineer, Regulatory Affairs
R. Segura, Nuclear Analyst Consultant (Electrical Systems)
S. Smith, Director, System Engineering
D. Sparks, Senior Nuclear Analyst (Work Week Coordinator)
C. Tran, Engineering Programs Manager
D. Wilder, Manager, Security, Emergency Planning, and Environmental
H. Winn, System Engineer

NRC

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

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

None

Closed

05000446/2006-001	LER	Condition Prohibited by Technical Specification due to a Failed Air Valve for an Atmospheric Relief Valve Actuator (Section 4OA3.1)
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Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R05: Fire Protection (71111.05Q)

Comanche Peak Steam Electric Station Fire Protection Report, Section II, Unit 1 and Unit 2 Fire Hazards Analysis Report, Revision 26

Fire Preplan Instruction Procedure (FPI), FPI-103B, "Unit 2 Safeguards Building Elevation 810'-6" RAD. PEN. Area & Elec. Equip. Rm," Revision 3

FPI-104B, "U-2, Train A Diesel Generator & Equipment Elev. 810' and Fuel Oil Day Tank Room Elev. 844'," Revision 1

FPI-502, "Electrical & Control Building, Unit 1 & 2 Battery Rooms, 792'-2" Elev," Revision 1

Section 1R06: Flood Protection Measures (71111.06)

Calculations

SI-CA-0000-663 Auxiliary Building Flooding Analysis, Revision 1

ME-CA-0000-5055 Back Flooding of Various Buildings via the sumps and floor drain piping, CNN#1

Procedures

STA-696 Hazard Barrier Controls, Revision 2

Miscellaneous

Design Basis Document DBD-CS-071, "Probably Maximum Flood (PMF), Revision 7

Smart Form SMF-2005-003667-00

Evaluation EVAL-2005-003667-01

Section 1R13: Maintenance Risk Assessments and Emergent Work Control (71111.13)

Operations Guideline 41, "Hands- Off" and Grid Notification Guideline," dated September 5, 2007

Abnormal Conditions Procedures Manual ABN-704, "Tc/N-16 Instrumentation Malfunction," Revision 10

EVAL-2007-2635-01, EVAL-2007-2635-02,

Section 1R19: Postmaintenance Testing (71111.19)

Smart Form SMF-2007-001154-00

Procedure MSM-G0-8202 Graphite Valve Packing and Live Loading, Revision 3

Work Order WO 4-07-173396-00

Section 1R23: Temporary Modifications (71111.23)

FDA-2007-2268-01: Provide alternative method to sample RCS

EVAL-2007-2268-06: Overall evaluation of Site Activity Plan

Section 1EP1: Emergency Preparedness (71114.01)

CPSES Emergency Plan, Revision 34

Emergency Plan Procedures (EPP-)

109, "Duties and Responsibilities of the Emergency Coordinator/Recovery Manager," Revision 12

116, "Emergency Repair and Damage Control and Immediate Entries," Revision 6

204, "Activation and Operation of the Technical Support Center," Revision 14

205, "Activation and Operation of the Operations Support Center," Revision 11

206, "Activation and Operation of the Emergency Operations Facility," Revision 14

303, "Operation of the Computer Based Emergency Dose Assessment System," Revision 12

305, "Emergency Exposure Guidelines and Personnel Dosimetry," Revision 12

306, "Use of Thyroid Blocking Agents," Revision 10

Section 4OA1: Performance Indicator (PI) Verification (71151)

Emergency Plan Procedures (EPP-)

201, "Assessment of Emergency Action Levels, Emergency Classification, and Plan Activation," Revision 11

203, "Notifications," Revision 14

304, "Protective Action Recommendations," Revision 18

EP Staff Guideline 12, "Alert and Notification System Surveillance," Revision 11

LIST OF ACRONYMS

ADAMS	agency document and management system
ARV	atmospheric relief valve
CCW	component cooling water
CDE	consolidated data entry
CFR	<i>Code of Federal Regulations</i>
CPSES	Comanche Peak Steam Electric Station
EDG	emergency diesel generator
EECP	emergency electrical curtailment plan
ERCOT	Electric Reliability Council of Texas
EVAL	evaluation
IDA	interim design changes
MSPI	Mitigating Systems Performance Indicator
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OPT	operations testing manual
PARS	publicly available records system
PI	performance indicator
QTE	quick turnaround evaluation
RHR	residual heat removal
RWST	refueling water storage tank
SDP	significance determination process
SMF	smart form
SOP	system operating procedure
SSC	structure, system, component
TDAFWP	turbine driven auxiliary feedwater pump
TS	Technical Specifications
UFSAR	updated final safety analysis report
WO	work order