



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 1, 2008

Mike Blevins, Executive 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 05000445/2008002 AND 05000446/2008002

Dear Mr. Blevins:

On March 23, 2008, 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 inspection report documents the inspection findings which were discussed on March 27, 2008, with Mr. R. Flores and other members of your staff.

The 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. 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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/ TRFarnholtz for

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

Luminant Generation Company LLC

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Dockets: 50-445; 50-446

Licenses: NPF-87; NPF-89

Enclosure:

NRC Inspection Report 05000445/2008002

and 05000446/2008002

w/attachment: Supplemental Information

cc w/enclosure:

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SUNSI Review Completed: TRF ADAMS: Yes No Initials: TRF

Publicly Available Non-Publicly Available Sensitive Non-Sensitive

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ML 0181220283

SRI:DRP/A	C:DRS/EB1	C:DRS/OB	C:DRS/PSB	C:DRS/EB2	C:DRP/A
DBAllen	RLBywater	RELantz	MPShannon	LJSmith	CEJohnson
<i>RA/ E-mailed</i>	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/TRFarnholt</i>
4/18/08	4/14/08	4/14/08	04/15/08	4/14/08	04/30/08

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U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 50-445, 50-446

Licenses: NPF-87, NPF-89

Report : 05000445/2008002 and 05000446/2008002

Licensee: Luminant Generation Company LLC

Facility: Comanche Peak Steam Electric Station, Units 1 and 2

Location: FM-56, Glen Rose, Texas

Dates: January 1 through March 23, 2008

Inspectors: D. Allen, Senior Resident Inspector
B. Tindell, Resident Inspector
T. Farnholtz, Senior Project Engineer
M. Haire, Senior Operations Engineer
P. Goldberg, Reactor Engineer
M. Bloodgood, Project Engineer
M. Hayes, Project Engineer
M. Haire, Senior Operations Engineer

Approved by: C. Johnson, Chief, Project Branch A
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000445/2008002, 05000446/2008002; 01/01/2008-03/23/2008; Comanche Peak Steam Electric Station, Units 1 and 2: Integrated Resident and Regional Report. No findings identified.

This report covers a 3-month period of inspection by two resident inspectors, two project engineers, a senior project engineer, a reactor engineer, and an announced baseline inspection by a regional inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Comanche Peak Steam Electric Station (CPSES) Unit 1 began the reporting period at 100 percent power. The unit was shut down on January 31 and cooled down to Mode 4 on February 1 to troubleshoot a ground on the main generator rotor. The unit was returned to critical operations on February 3 and achieved 100 percent power on February 4, 2008. The unit remained at 100 percent power for the remainder of the reporting period.

CPSES Unit 2 began the reporting period at full power and operated at full power for the entire reporting period, except for a reactor trip on March 16, 2008. The unit returned to full power operation on March 18, 2008.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors evaluated the site's readiness for seasonal extreme cold weather conditions. The inspectors reviewed Abnormal Condition Procedure ABN-912, "Extreme Cold Weather/Heat Tracing and Freeze Protection System Malfunction," Revision 8, Station Administrative Procedure STA-634, "Extreme Temperature Equipment Protection Program," Revision 4, and Operations Department Work Instruction OWI-912, "Cold Weather," Revision 0. OWI-912 attachments and control room logs were reviewed to verify that plant equipment had been aligned for cold weather and that temperatures were being monitored in accordance with the attachments. During the week of January 13, 2008, the inspectors walked down Units 1 and 2 emergency diesel generators (EDGs) and the auxiliary and fuel buildings heating, ventilation, and air conditioning systems for overall readiness for expected cold weather.

The inspectors completed one sample to evaluate readiness for seasonal extreme weather conditions, including readiness of two risk significant systems.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

.1 Quarterly Partial System Walkdowns (71111.04)

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Unit 2 Train A residual heat removal system in accordance with System Operating Procedure SOP-102B, "Residual Heat Removal System," Revision 11, and Operations Testing Procedure (OPT) OPT-203B, "Residual Heat Removal System," Revision 11, while the Unit 2 Train B residual heat removal system was inoperable for scheduled surveillance, on January 17, 2008
- Unit 2 Train B containment spray system while Train A was out of service for maintenance, in accordance with System Operating Procedure SOP-204B, "Containment Spray System," Revision 5, on January 29, 2008
- Unit 2 turbine-driven auxiliary feedwater pump while EDG 2-01 was out of service for maintenance, in accordance with OPT-206B-3, "TD AFW PMP Valve Position Verification Data Sheet," Revision 9, on March 5, 2008

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, outstanding work orders, Smartforms, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the attachment.

The inspectors completed three samples.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Complete System Walkdown (71111.04S)

a. Inspection Scope

On March 21, 2008 the inspectors completed a system alignment inspection of the reactor coolant leakage detection system to verify the functional capability of the system. This system was selected because it was considered safety-significant. The inspectors walked down the system to review mechanical and electrical equipment lineups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding work orders was performed to determine whether any deficiencies significantly affected the system function. In

addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

Fire Area Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zone AA21B – Units 1 and 2 auxiliary building Elevation 810' on January 8, 2008
- Fire Zone SE16 – Unit 1 safeguards building Elevation 832', corridor leading to personal airlock, on February 19, 2008
- Fire Zone SI12 – Unit 1 EDG 1-02 rooms on February 20, 2008
- Fire Zone SB2A – Unit 1 Train A emergency core cooling systems rooms Elevation 773' on February 20, 2008
- Fire Zone EO – Units 1 and 2 Control Room on February 20, 2008

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the attachment.

The inspectors completed five samples.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures for licensee commitments. The specific documents reviewed are listed in the attachment. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant areas to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- Units 1 and 2 auxiliary building, Elevations 830', 810' and 790', Flood Areas AA21 A and D, walked down during the week of January 13, 2008

Documents reviewed are listed in the attachment.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On February 25, 2008, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;

- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

.2 Annual Inspection (71111.11A)

a. Inspection Scope

The inspector performed an in-office review of the annual operating examination test results for 2007. Since this was the first half of the biennial requalification cycle, the licensee was not required to administer a written examination. These results were assessed against the standards of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process." This review included the test results for 15 crews composed of a total of 85 licensed operators, which included: shift-standing senior operators, staff senior operators, shift-standing reactor operators, and staff reactor operators. There was one individual failure on the simulator, and that operator was remediated following the examination.

The inspector completed one sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- Unit 1 Train B solid state sequencer returned to (a)(2) status after exceeding the rolling 24-month period unavailability performance criteria, EVAL-2007-001604-01-00
- Anticipated Transient Without Scram Mitigation System Actuation Circuitry (AMSAC) considered by the Maintenance Rule Review Panel for (a)(1) status after two functional failures in a rolling 24-month period in accordance with the reliability performance criteria, on March 6, 2008

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components and/or functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the attachment.

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 licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Scheduled and emergent work activities for the week of January 20 through 26, 2008, including troubleshooting the Unit 1 main generator rotor ground with the effects of changing primary water chemistry
- Scheduled and emergent work activities for the week of January 27 through February 2, 2008, including emergent repair of Safety Chiller 1-06 in series with maintenance affecting Steam Generator 1-01 atmospheric relief valve and maintenance in the 345kV switchyard
- Unit 1 forced outage on January 31, 2008 to troubleshoot and inspect for the ground indication on the main generator rotor, including risk related to reducing reactor temperature and pressure to Mode 4 conditions
- Scheduled work activities for the week of February 10 through 16, 2008, including routine EDG 1-02 and turbine-driven auxiliary feedwater pump surveillances with diving and cleaning activities in the service water intake structure

These activities were selected based on their potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

The inspectors completed four samples.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- Smartform (SMF)-2008-000015-00, EDG 2-01 room temperature low-low
- Removing power from Block Valve 2-8000A with valve closed due to leakage from Power Operated Relief Valve 2-455A, also reviewed EVAL-2007-001962-01-00
- SMF-2008-000344-00, Boric acid leaks identified in Unit 1 containment
- SMF-2008-000454-00, Incorrect fitting used on seal assembly for 1-PT-0536, Main Steam Line 1-03 pressure transmitter

- SMF-2008-000648-00, Residual Heat Removal Heat Exchanger 2-01 Flow Control Valve 2-HCV-606 found 50 percent open.

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the attachment.

The inspectors completed five samples.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

For the following plant modification described below, the inspectors reviewed the Final Design Authorization documents, 10 CFR 50.59 screenings, the UFSAR, TSs, implementing work orders, associated drawings, installation and post-installation testing procedures, and observed installation and testing of portions of the modification to verify that design bases, license bases, and performance capability had not been degraded through this modification.

- Temporary modification to install two ASCO solenoid valves in place of two Herion solenoids on Unit 2 Feedwater Bypass Valves 2-LV-2165-SV2 and 2-LV-2164-SV2. This modification was performed under FDA-2006-003660-01-01 and included a 10 CFR 50.59 screening. The ASCO solenoids were installed because of a parts availability issue with the original Herion solenoids. A temperature limitation was identified for the replacement solenoids since they were not qualified to perform their function at ambient temperatures below 32 degrees Fahrenheit. This limitation only affected operation of the plant during a Unit 2 startup. The inspectors verified that this limitation was being activity tracked and managed via Limiting Condition for Operation Action Requirements Number A2-07-0150.

The inspector completed one sample.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following postmaintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Unit 2 Train B residual heat removal system following routine inspections, maintenance and calibrations in accordance with OPT- 203B, "Residual Heat Removal System," Revision 11, performed on January 17, 2008
- Unit 2 Train A containment spray system, following planned maintenance on system components including removal, cleaning and inspection of pump bearing coolers, in accordance with OPT-205B, "Containment Spray System," Revision 14, observed on January 29, 2008
- Unit 1 stroke test of Valve 1-8878A, in accordance with procedure OPT-519A, "Miscellaneous Valve Position Indication Test," Revision 3, following elastomer replacement, performed on February 21, 2008
- Unit 1 Train A containment spray pump bearing cooler cleaning and restoration, in accordance with the Technical Data Manual, "Systems Data Throttled Valves/ Flow Rates", Revision 6, performed on February 26, 2008
- Unit 1 Train A EDG monthly surveillance, in accordance with Procedure OPT-214A, "Diesel Generator Operability Test," Revision 19, following planned maintenance on the fuel oil system, observed on February 27, 2008

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion), and test documentation was properly evaluated. The inspectors evaluated the activities against TS, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with postmaintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the attachment.

The inspectors completed five samples.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors evaluated outage activities for the Unit 1 forced outage that began on January 31, 2008, and continued through February 4, 2008. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, startup and heatup activities, and identification and resolution of problems associated with the outage. Unit 1 was shutdown to troubleshoot a ground on the main generator rotor. Documents reviewed are listed in the attachment.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed and/or reviewed the test results for the following surveillance activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function:

In-Service Testing

- Unit 1 Residual Heat Removal Valves 1-8825, 1-8890A, and 1-8812A in accordance with OPT-512A, "RHR and SI Subsystem Valve Test," Revision 9, reviewed on January 8, 2008

Reactor Coolant System Leakage Detection Surveillance Testing

- Unit 2 Reactor Coolant Leakage Calculation for March 13, 2008, in accordance with OPT-303, "Reactor Coolant System Water Inventory," Revision 12, reviewed on March 14, 2008

Routine Surveillance Testing

- Unit 1 EDG 1-02 in accordance with OPT-214A, "Diesel Generator Operability Test," Revision 19, reviewed on January 16, 2008

- Unit 1 Train B solid state protection system slave relay testing in accordance with OPT-493A, "Train B Safeguards Slave Relay K615 Actuation Test," Revision 6, observed on February 22, 2008

The inspectors observed in-plant activities and reviewed procedures and associated records to determine whether: any unacceptable preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as left setpoints were within required ranges; and the calibration frequency were in accordance with TSs, the UFSAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; test equipment was removed after testing; where applicable for in-service testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers Code, and reference values were consistent with the system design basis; where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable; where applicable for safety-related instrumentation and control surveillance tests, reference setting data were accurately incorporated in the test procedure; equipment was returned to a position or status required to support the performance of its safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the CAP. Documents reviewed are listed in the attachment.

The inspectors completed one in-service testing inspection sample, one reactor coolant system leak detection surveillance sample, and two routine surveillance testing samples, for a total of four samples.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on March 19, 2008 to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the Simulator and Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify

whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the attachment.

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the 4th Quarter 2007 PIs for any obvious inconsistencies prior to its public release in accordance with IMC 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

.2 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned scrams per 7000 critical hours PI for CPSES Units 1 and 2 for the period from January 2007 through December 2007. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," were used. The inspectors reviewed the licensee's operator narrative logs, Smartforms, event reports and NRC Inspection reports for the period of January 2007 through December 2007 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's Smartform database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment.

The inspectors completed two samples.

b. Findings

No findings of significance were identified.

.3 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned scrams with complications performance indicator for CPSES Units 1 and 2 for the period from January 2007 through December 2007. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," were used. The inspectors reviewed the licensee's operator narrative logs, Smartforms, event reports and NRC integrated inspection reports for the period January 2007 through December 2007 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's Smartform database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment.

The inspectors completed two samples.

b. Findings

No findings of significance were identified.

.4 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned transients per 7000 critical hours performance indicator for CPSES Units 1 and 2 for the period from January 2007 through December 2007. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," were used. The inspectors reviewed the licensee's operator narrative logs, Smartforms, maintenance rule records, event reports and NRC integrated inspection reports for the period January 2007 through December 2007 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's Smartform database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment.

The inspectors completed two samples.

b. Findings

No findings of significance were identified.

40A2 Identification and Resolution of Problems (71152)

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for followup, the inspectors performed a daily screening of

items entered into the licensee's CAP. This review was accomplished through review of each Smartform written during the inspection period.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

Unit 2 Automatic Reactor Trip

a. Inspection Scope

The inspectors reviewed the plant's response to an automatic reactor trip due to an automatic main turbine trip. Unit 2 was operating at full power when a condenser instrument line failed on March 16, 2008, causing the turbine trip. Condenser vacuum, as verified on multiple independent instruments, remained normal. The inspectors verified that the plant responded as expected. The inspectors also observed the immediate corrective actions to correct the broken line. The unit remained in Mode 3 until startup on March 17 through March 18, 2008, which the inspectors observed. The root cause for the sheared line had not been completed at the end of the inspection period, so the inspectors were unable to review it for this sample. Documents reviewed in this inspection are listed in the attachment.

This inspection constitutes one sample.

b. Findings

No findings of significance were identified.

4OA6 Management Meetings

Exit Meeting Summaries

On January 17, 2008, the inspectors presented the results of the licensed operator annual requalification examination to Mr. Cliff Davis, Examination Coordinator. No proprietary information was provided or examined during the inspection.

On March 27, 2008, the resident inspection results were presented to Mr. R. Flores and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. All proprietary information had been returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

M. Blevins, Senior Vice President and Chief Nuclear Officer
M. Bozeman, Supervisor, Emergency Planning
G. Casperson, Interim Manager, Training
H. Davenport, System Engineer
R. Flores, Site Vice President
D. Goodwin, Director, Operations
A. Heap, System Engineer
T. Hope, Manager, Regulatory Performance
R. Kidwell, Licensing Analyst
D. Kross, Plant Manager
F. Madden, Director, Regulatory Affairs
M. McCutchen, System Engineer
E. Meaders, Manager, Outage
J. Mercer, Maintenance Rule Coordinator
G. Merka, Licensing Analyst
J. Meyer, Manager, Nuclear Technical Support
W. Morrison, Interim Director, Nuclear Maintenance
W. Reppa, Manager, System Engineering
J. Skelton, System Engineer
K. Strickland, Supervisor, Nuclear Maintenance
P. Torres, Supervisor, Nuclear Maintenance
C. Tran, Engineering Programs Manager
D. Wilder, Manager, Security, Emergency Planning, and Environmental
H. Winn, System Engineer

Nuclear Regulatory Commission

D. Allen, Senior Resident Inspector
B. Tindell, Resident Inspector

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R05: Fire Protection

Smartform

SMF-2008-000381-00

Procedures

FIR-201, "Preparation, Control, Review and Use of Fire Preplan Instructions," Revision 8
FPI-403, "Auxiliary Building Elevation 810'-6"," Revision 4
MSE-PX-7707, "Fire Protection Control Panels CPX-EIPRLV-29 and 29B Test," Revision 5
Fire Preplan Instruction Manual FPI-105A, Rev. 3

Work Orders

3-06-319952-01
3-04-304146-01
3-06-338443-01
412492

Drawings

2323-MI-0756, "Ventilation Auxiliary Building Plan EI 830'-0" and 831'-6"," Revision 9
M1-1901, "Penetration Seals Typical Details," Revision CP-5
E1-2409, "Fire Protection System Halon Control Panels CPX-E1PRLV-44A External Wiring Diagram," Revision CP-5

Other

ECE-M1-1900, "Penetration Seal Schedule," Revision CP-007
CPSES Fire Protection Report

Section IR06: Flood Protection Measures

Procedures

ABN-501, "Station Service Water System Malfunction," Revision 8
STA-696, "Hazards Barrier Controls," Revision 2

Calculations

Calculation ME-CA-0000-5055, "Back Flooding of Various Buildings Via Sumps and Floor Drain Piping," Revision 0

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

Other

DBD-CS-071, "Probable Maximum Flood (PMF)," Revision 11
CPSES Probabilistic Risk Assessment Summary Document, June 12, 2006

Section 1R12: Maintenance Effectiveness

Smartforms

SMF-1999-001226-00
SMF-1999-001939-00
SMF-2001-001704-00
SMF-2005-003369-00
SMF-2005-003468-00
SMF-2007-000090-00
SMF-2007-001967-00
SMF-2008-000102-00

Procedures

ALM-0092A, "Alarm Procedure 1-ALB-9B," Revision 9

Other

Maintenance Rule Review Panel Meeting Agenda (1/10/2008)

Maintenance Rule Review Panel Meeting Agenda (3/6/2008)

Maintenance Rule Review Panel Meeting Minutes, Number 97-0710

Maintenance Rule Review Panel Meeting Minutes, Number 98-0430

System / Plant Performance Criteria, Revision 10/30/2007

TXX-90551, CPSES Response to Notice of Violation, October 17, 1990

NRC Generic Letter 85-06, "Quality Assurance Guidance for ATWS Equipment that is Not Safety-Related"

CPSES FSAR 7.8

Section 1R15: Operability Evaluations

Smartforms/Evaluations

EVAL-2008-000454-01-00
SMF-2008-000651-00

Procedures

- ODA-308, "LCO Tracking Program", Revision 11

Other

LCOAR A2-08-0125

Section 1R18: Plant Modifications

Engineering Documents

FDA-2006-003660-01-01

STA-707 50.59 Screen 59SC-2006-003660-01-01

Work Orders

2-06-171196-00

2-06-171198-00

Miscellaneous

FSAR Section 10.4.7, 7.3.1.5, 7.1.2.5

FSAR Table 9.4-1, Outdoor Design Conditions

FSAR Table 3.9B-10, Active Valves

Technical Specification 3.7.3

Design Basis Document DBD-ME-203, Section 4.3.1.2, 11.1.1

Section 1R19: Post Maintenance Testing

Smartforms/Evaluations

EVAL-2008-000540-01-00

SMF-2000-001578-00

SMF-2000-001605-00

SMF-2001-000323-00

SMF-2003-002492-00

SMF-2003-002830-00

SMF-2004-001297-00

SMF-2004-001704-00

SMF-2005-004275-00

SMF-2006-000243-00

SMF-2007-002250-01

SMF-2008-000540-00

SMF-2008-000766-00

SMF-2008-000910-00

Procedures

TDM-901B, "Systems Data Throttled Valves/Flow Rates", Revision 6

ALM-0011B, "Alarm Procedure 2-ALB-1", Revision 4

Post Work Test Guide, Revision 12

INC-2065, "Calibration Magnetrol Float Type Level Switch," Revision 1

OPT-515A-3, "DG 1 Fuel Oil Transfer System Automatic Operations Test Data Sheet,"
Revision 1

Work Orders

403448

399999

401412

376869

Other

DCN 12440, "Calculation ME-CA-0233-3002," Revision 0

DBD-ME-233, "Station Service Water System," Revision 18

Vendor Letter 07-001576, "TXU Containment Spray Pump Operation Without Bearing Cooler
Water"

MDA-1105-1 R-2/06-02, "CPSES Maintenance Department Data Sheet for 1-LS-3375A"

Vender Technical Manual 001-810-001, Magnetrol "Instruction Manual and Part List
Model A-103 and A-153 Series Liquid Level Controls"

IEEE Standard 387-1984, "Standby Power Supplies for Nuclear Power Generating Stations"

DBD-ME-215, "Diesel Generator Fuel Oil Storage and Transfer System," Revision 11

M1-2215, "Instrumentation and Control Diagram Diesel Generator Auxiliary System Channel
Number 3375/3390," Revision CP-5

Section 1R20: Outage Activities

Reports

SMF-2008-000330-00, Post Trip Review for Unit 1 Down Power and Trip 2/1/08
General Work Order Report, 11/12/2007, Forced Outage List
General & Crew Schedule Work Order Analysis Report, 1/16/08

Section 1R22: Surveillance Testing

Smartforms/Evaluations

SMF-1999-002332-00
QTE-2002-002717-01-00
SMF-2007-002268-00
SMF-2008-000565-00

Procedures

ALM-0022A, "Alarm Procedure 1-ALB-2B," Revision 9
OPT-493A, "Train B Safeguards Slave Relay K615 Actuation Test," Revision 6
OPT-303, "Reactor Coolant System Water Inventory," Revision 12

Other

Operations Guideline 3, Attachment 4, "Operations Department Alarm Response Expectations," August 11, 2006

NRC Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems"

Section 1EP6: Drill Evaluation

Gold Team Exercise Guide, March 19, 2008

Section 4OA1: Performance Indicator Verification

Smartforms/Evaluations

SMF-2007-001172-00
EVAL-2007-001172-01-00
SMF-2007-002208-00
EVAL-2007-002208-01-00
SMF-2007-002846-00
EVAL-2007-002846-01-00
SMF-2008-000062-00
SMF-2008-000062-01
EVAL-2008-000062-01-00
EVAL-2008-000062-01-01

Section 4OA3: Followup of Events and Notices of Enforcement Discretion

Smartforms

SMF-2008-000795
SMF-2008-000797

Procedures

ODA-108-1, "Post RPS and ESF Actuation Evaluation", Revision 14

Other

EN 44067

LIST OF ACRONYMS USED

CAP	Corrective Action Program
CFR	<i>Code of Federal Regulations</i>
CPSES	Comanche Peak Steam Electric Station
EDG	emergency diesel generator
OPT	operations testing procedure
PI	performance indicator
SMF	Smartform
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report