UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

September 25, 2009

Rafael Flores, Senior Vice President
and Chief Nuclear Officer
Luminant Generation Company LLC
Comanche Peak Steam Electric Station
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION –
NRC PROBLEM IDENTIFICATION AND RESOLUTION
INSPECTION REPORT 05000445/2009006 AND 05000446/2009006

Dear Mr. Flores:

On August 14, 2009, the U. S. Nuclear Regulatory Commission (NRC) completed a team inspection at Comanche Peak Steam Electric Station. The enclosed report documents the inspection findings, which were discussed on August 14, 2009, with Mr. M. Lucas, Site Vice President, and other members of your staff.

The inspection examined activities conducted under your license as they relate to identification and resolution of problems, safety and compliance with the Commission's rules and regulations and with the conditions of your operating license. The team reviewed selected procedures and records, observed activities, and interviewed personnel. The team also interviewed a representative sample of personnel regarding the condition of your safety-conscious work environment.

This report documents one NRC-identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance of the violation and because it was entered into your corrective action program, the NRC is treating this violation as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. 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 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, 612 E. Lamar Blvd., Suite 400, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at Comanche Peak Steam Electric Station. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV, and the NRC Resident Inspector at Comanche Peak Steam Electric Station. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

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 Website at www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Gregory E. Werner, Chief
Plant Support Branch 2
Division of Reactor Safety

Dockets: 50-445, 05-446
Licenses: NPF-87, NPF-89

Enclosure:
Inspection Report 05000445/20090006;
05000446/2009006 w/Attachments
1. Supplemental Information
2. Initial Information Request

cc w/Enclosure:
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File located: R:_REACTORS_CP\2009\CP2009006 PIR-JFD.doc ML

SUNSI Rev Compl.	☑ Yes ☐ No	ADAMS	☑Yes ☐ No	Reviewer Initials	TWP
Publicly Avail	☑☐ Yes ☐ No	Sensitive	☐ Yes ☑No	Sens. Type Initials	TWP

RIV/DRS/PSB2	RIV/DRS/EB2	RIV/DRS/PSB2	RIV/DRP/RI	C:DRS/PSB2
JFDrake	RMLatta	PAGoldberg	BWTindell	GEWerner
/RA/	/RA/ per email	/RA/ per email	/RA/ per email	/RA/ per email
9/15/09	9/15/09	9/17/09	9/21/09	9/23/09

C:DRP/A	C:DRS/PSB2			
WCWalker	GEWerner			
/RA/	/RA/			
9/24/09	9/25/09			

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	05000445, 05000446
Licenses:	NPF-87, NPF-89
Report:	05000445/2009006 and 05000446/2009006
Licensee:	Luminant Generation Company LLC
Facility:	Comanche Peak Steam Electric Station
Location:	FM-56, Glen Rose, Texas
Dates:	July 27 through August 14, 2009
Team Leader:	James F. Drake, Senior Reactor Inspector
Team:	Robert M. Latta, Senior Reactor Inspector Paula A. Goldberg, Reactor Inspector Brian W. Tindell, Resident Inspector
Approved By:	Gregory E. Werner, Chief Plant Support Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000445/2009006, 05000446/2009006; 07/27/09 – 08/14/09; Comanche Peak Steam Electric Station, Biennial Baseline Inspection of the Identification and Resolution of Problems

The team inspection was performed by two senior reactor inspectors, a reactor inspector, and a resident inspector. One Green non-cited violation of very low safety significance was identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, 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 4, dated December 2006.

Identification and Resolution of Problems

The team reviewed approximately 300 SmartForms (condition reports), work orders, engineering evaluations, root and apparent cause evaluations, and related supporting documentation to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self-assessments, trending reports and metrics, and various other documents related to the corrective action program. Based on these reviews, the inspection team concluded that the implementation of the corrective action program at Comanche Peak nuclear power plant Units 1 and 2 was effective. The team noted a distinct improvement in the quality of the corrective action program between the early portion of the inspection timeframe and the latter portion. The team determined that Comanche Peak staff currently has a low threshold for identifying problems and issues are now prioritized and evaluated commensurate with their safety significance. Corrective actions are now typically implemented in a timely manner and address the identified causes of problems.

There has been a marked improvement in the evaluation of industry operating experience and the licensee used industry operating experience when performing root cause and apparent cause evaluations. However, the team noted potential challenges to timely review of the information contained in operating experience reports because most operating experience reports were classified at the second lowest level of prioritization in the SmartForm processing procedure.

Approximately 20 percent of the operability evaluations reviewed by the team did not contain sufficient documentation to support a reasonable expectation that the system, structure, or component was operable.

The team reviewed approximately 40 quality assurance audits and self-assessments. Based on the results of these reviews, the team concluded the licensee performed effective quality assurance audits and self-assessments, as demonstrated by self-identification of corrective action program weaknesses. In most cases, audits and self-assessments were critical with corrective actions recommended.

Based on 76 interviews, including seven focus groups (consisting of approximately 50 people) conducted during this inspection, observations of plant activities, and reviews of the corrective action and Safeteam (employee concerns) programs, the team determined that site personnel were willing to raise safety issues and document them in the corrective action program. The team observed that workers at the site felt free to report problems to their management and were willing to use the Safeteam Program.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Actions,” for the failure of to promptly correct a condition adverse to quality when they did not apply thread sealant to safety-related atmospheric relief valves positioner adjustment screws. This issue was entered into the licensee’s corrective action program as SmartForm SMF-2009-004054. The licensee took corrective actions by performing an operability determination, which provided reasonable assurance that the atmospheric relief valves were operable and completion of the thread sealant repairs could be reasonably delayed until the next scheduled outage.

The finding was more than minor since it affected the Mitigation System Cornerstone attribute of availability and reliability of mitigating equipment, specifically the operability of the atmospheric relief valves. Using Manual Chapter 0609, Attachment 4, "Phase 1-Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance since it did not result in a loss of the safety system function. No crosscutting aspect was assigned because this issue was not indicative of current plant performance. (Section 4OA2.5)

B. Licensee-Identified Violations

None

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152)

The team based the following conclusions on a sample of corrective action documents that were initiated during the assessment period, which ranged from September 25, 2007, to the end of the onsite portion of the inspection on August 14, 2009.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The team reviewed 300 SmartForms (condition reports), including associated root cause, apparent cause, and direct cause evaluations, from approximately 9,800 that had been issued between September 25, 2007 and August 14, 2009, to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, operability determinations, self-assessments, trending reports and metrics, and various other documents related to the corrective action program. The team evaluated the licensee's efforts in establishing the scope of problems by reviewing selected logs, work requests, self-assessments, audits, system health reports, action plans, and results from surveillance tests and preventive maintenance tasks. The team reviewed work requests and attended the management review committee meetings to assess the reporting threshold, prioritization efforts, and significance determination process, as well as observing the interfaces with the operability assessment and work control processes when applicable. The team's review included verifying the licensee considered the full extent of cause and extent of condition for problems, as well as how the licensee assessed generic implications and previous occurrences. The team assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of similar problems. The team conducted interviews with plant personnel to identify other processes that may exist where problems may be identified and addressed outside the corrective action program.

The team also reviewed corrective action documents that addressed past NRC-identified violations to ensure that the corrective action addressed the issues as described in the inspection reports. The team reviewed a sample of corrective actions closed to other corrective action documents to ensure that corrective actions were still appropriate and timely. The team considered risk insights from both the NRC's and Comanche Peak's risk assessments to focus the sample selection and plant tours on risk significant systems and components. The team selected the following risk significant systems: auxiliary feed water; and 120, 480 and 6,900 Volt power systems. The samples reviewed by the team focused on, but were not limited to, these systems. The team also expanded their review to include five years of evaluations involving the auxiliary feed water and 480 and 6,900 Volt power systems to determine whether problems were being

effectively addressed. The team conducted walkdowns of these systems to assess whether problems were identified and entered into the corrective action program.

b. Assessments

Assessment - Effectiveness of Problem Identification

The team concluded that the licensee correctly identified deficiencies that were conditions adverse to quality and entered them into the corrective action program in accordance with the licensee's corrective action program guidance and NRC requirements. The team determined that the licensee was typically identifying problems at a low threshold and entering them into the corrective action program. However, the team identified six conditions adverse to quality that were not placed in the corrective action program. These examples were identified by the NRC and are documented in the integrated resident inspection reports. The licensee had written approximately 9,800 SmartForms during the 2-year period of review.

Assessments - Effectiveness of Prioritization and Evaluation of Issues

The licensee had weaknesses when performing and/or documenting evaluations of conditions adverse to quality during this assessment period. The team reviewed approximately 100 SmartForms that involved operability reviews and assessments to evaluate the quality, timeliness, and prioritization of operability assessments. The team noted that the immediate and prompt operability assessments reviewed were completed in a timely manner, but frequently failed to fully evaluate all aspects of operability related to the issue. Operability assessments were routinely performed without sufficient engineering rigor, generally involved little discussion about what functions were impacted, and why performance of a component/system was sufficient to fulfill these functions as required by station procedures. The team concluded that the operability assessments that were based on engineering judgment were not identified as such and the procedural requirements for this activity were not followed to confirm that the assumptions were correct. The team also noted that several of the immediate operability assessments did not include adequate justification and documentation to support the conclusions for the prompt operability assessments. Overall, the team determined that both immediate and prompt operability reviews did not include the appropriate technical rigor, as described in the following six examples, to support conclusions as required by station procedures. The team did a detailed reviewed 32 operability assessments during the inspection period and identified 6 that did not include an adequate engineering review.

The licensee had identified that there was a weakness in operability evaluations. This was documented in SmartForm SMF-2008-002551. A recent self-assessment completed June 30, 2009, identified that some improvement had been made in the performance of operability evaluations and determinations, but additional improvement was needed and additional corrective actions have been implemented. This was documented in SmartForm SMF-2009-003220. The team observed that the improvement noted in other areas of the corrective action program was not apparent in the operability evaluations yet.

Examples:

- SmartForm SMF-2007-002909 addressed a nonconformance notification submitted in accordance with 10 CFR Part 21, from Fischer regarding early failure of some diaphragms used in air-operated valves due to inadequate cure time. Failure of the diaphragm would result in valve 2-HV-2452-2, "Turbine-Driven Auxiliary Feedwater Pump Steam Supply Valve," failing to the open position, which is one of its safety-related positions. The licensee's operability determination concluded that since the valve would be in its fail-safe position, the steam admission valve was operable. However, the licensee failed to address the other safety function of the valve as a containment isolation valve in the event of a steam generator tube rupture. If the diaphragm failed, the team noted that the steam admission valve was not capable of performing its safety function of containment isolation during a steam generator tube rupture event. However, the team determined that the licensee's emergency operating procedures provided adequate guidance to operators for isolating the valve in the event of a failure during a steam generator tube rupture event.

- The operability evaluations performed for SmartForms SMF-2009-001632 and SMF-2009-002000, which documented boric acid leaks observed from two containment spray heat exchangers, had simplistic evaluations that did not account for the fact that the leaks had existed for at least 10 years, and provided no technical basis for why it was acceptable to allow the leakage to continue. The licensee's subsequent operability determination concluded the degradation to affected components was acceptable until at least the next scheduled outage.

- During the performance of a control room positive pressure test, control room pressure dropped below 0.125” WG. The licensee documented this condition on SmartForm SMF-2009-001895. The licensee’s operability determination stated that the surveillance they were performing contained no acceptance criteria for pressure and therefore did not affect operability. The licensee stated that the system had previously passed Surveillance Requirement SR 3.7.10.4, “Tracer Gas Testing,” and therefore the system was operable. The evaluation stated that a gravity damper, one of two dampers in series, was stuck open and could not hold differential pressure. The team questioned the operability determination based on single failure criteria. In response to this issue, the licensee concluded that the single failure criteria did not apply to the control room boundary. However, after additional inquiries by the team, the licensee identified that

Document DBD-ME-003, “Control Room Habitability,’’ Section 4.2.1 d stated in part, “the Control Room Air Conditioning System pressure boundary dampers should be provided with sufficient redundancy in equipment and power supply to enable the system to sustain a single failure of an active component without compromising Control Room Habitability. (SRP 6.4, Part II.2). If the motor-operated damper is the active failure, and fails open, the gravity damper has to provide the boundary.” During the evaluation performed as a result the team's challenge concerning system operability, gravity damper CPX-VADPGU-0-29 was determined to be operable, contrary to the initial evaluation, and able to perform its safety function based on the results of the licensee's boroscopic inspection.

Assessment - Effectiveness of Corrective Action Program

Overall, the team concluded that the licensee developed appropriate corrective actions to address problems based on a sample size of 43 SmartForms. Based on the sample reviewed, the team determined that corrective actions were completed in a timely manner. Nonetheless, the team determined that in one instance corrective actions for a previous event were not timely (See Section 4OA2.5).

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The team examined the licensee's program for reviewing industry operating experience, including reviewing the governing procedure and self-assessments. A sample of 49 operating experience reports was reviewed to assess whether the licensee had appropriately evaluated the notification for relevance to the facility. The team then examined whether the licensee had entered those items into their corrective action program and assigned actions to address the issues. The team reviewed a sample of root cause evaluations and corrective action documents to verify that the licensee had appropriately included industry operating experience.

b. Assessment

Based on this review, the team determined that there was a lack of documentation regarding the licensee's assessment of the applicability of operating experience to the site and actions taken. In addition, the team found that in the past, operating experience information was not always appropriately considered for applicability and corrective and preventive actions were not always taken as needed. While this was not indicative of current conditions, there was a potential problem with the current revision of Procedure STA-422, “CAP, Deficiency Resolution.” The operating experience program procedure screens operating experience based upon the potential consequences and the probability of occurrence. However, unless the operating experience notification is a Significant Operating Experience Report, the resulting SmartForms are assigned a Level 4 classification in accordance with guidance provided in Procedure STA-422. A Level 4 SmartForm is defined in Procedure STA-422 as “issues that involve a known

level of low risk." Level 4 SmartForms do not require the respondent to perform an extent of condition review to understand the current impact on equipment, but rather are a broke/fix issue; however, some operating experience information may meet the definition of Level 3 priority (i.e., issues that challenge nuclear safety). Of the 49 operating experience reports reviewed in detail, there were 5 instances in which the assessment failed to appropriately consider the industry information and properly prioritize (all were prioritized as Level 4) and evaluate the impact on system operability. Three examples follow:

- SmartForms SMF-2005-003489 and SMF-2008-002110 evaluated NRC Information Notices 2005-23, "Vibration Induced Degradation of Butterfly Valves," and 2008-11, "Service Water System Degradation at Brunswick Steam Electric Plant Unit 1," respectively. Comanche Peak's operability statement read in part, "SMF is to evaluate the applicability of the OPERATING EXPERIENCE only; there is no impact to equipment operability." The evaluation noted that the loss of taper pins could cause inoperability of the susceptible valves and that there were 218 susceptible valves that were safety-related components. The licensee stated that plant procedures had previously been modified to require constraining taper pins for these valves; however, there was no objective evidence demonstrating that an operability evaluation had been performed as of August 2009. The team questioned whether all valves had been modified since the procedures had been changed to require welding or staking the taper pins. The licensee's reviews in this area determined that both trains of Unit 2 service water system discharge valves contained the original un-staked taper pins in the valves. The licensee's operability determination concluded that the valves were operable based on the valve design which incorporates three taper pins to secure the disk to the shaft and that they will be able to detect taper pin loss through valve testing.

- SmartForms SMF-2005-002313 and SMF-2008-002110 evaluated operating experience reports concerning the failure of Fisher butterfly valves with a full valve liner. There are similar valves in the service water system at Comanche Peak that use a seat ring. The licensee's operability evaluations stated that, if the seat ring failed, the resulting loss in cooling capability would be minimal because of the design margin incorporated into the component cooling water heat exchangers. However, the licensee failed to evaluate the smaller components in the service water system, such as the pump lube oil coolers. When the team challenged the licensee' assessment, the licensee determined that the service water valve liner was a different material with an estimated useful life of over 40 years.

- SmartForm SMF-2005-002354 documents operating experience regarding magnesium rotor motor-operated valve failures. The operability statement on the SmartForm stated that "operability is not affected. A review of operating experience history revealed that there were no motor-operated valves in the industry that failed to perform their function as a result of the above described condition." This statement appears to be incorrect since there have been several

information notices issued documenting failures of magnesium rotor motor-operated valves, as well as additional examples of failures that have been communicated to Comanche Peak as operating experience reports. The corrective actions associated with this SmartForm have been limited to boroscopic inspections of three valves that did not have acceptance criteria documented. At the conclusion of the inspection, the licensee had not determined how many magnesium rotor motor-operated valves are installed in the plant. Similarly, SmartForm SMF-2009-000083 documents additional operating experience on magnesium rotor motor-operated valves. The operability statement stated "None. Industry Event. Previous evaluations of this issue have been done." As of August 2009, no evaluation was completed. Specifically, the population of valves was unknown, the inspection criteria were undocumented, and some magnesium rotor motor-operated valves may have been subjected to stall conditions or located in the vicinity of steam leaks. The team did not identify any documented magnesium rotor motor-operated valves failures at Comanche Peak.

The team noted that root and apparent cause evaluations were required to evaluate whether internal or external operating experience associated with the event or failure being examined was available, and whether the evaluation and actions to address those items had been effective. Additionally, all root cause evaluations reviewed included an assessment as to whether the issue being evaluated had potential application to other similar component or plants.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The team reviewed a sample of 40 licensee self-assessments, surveillances, and audits to assess whether the licensee was regularly identifying performance trends and effectively addressing them. The team reviewed audit reports to assess the effectiveness of assessments in specific areas. The team evaluated the use of self and third-party assessments, the role of the quality assurance department, and the role of the performance improvement group related to licensee performance. The specific self-assessment documents reviewed are listed in the attachment.

b. Assessment

The team concluded that the licensee had effective audit and self-assessment processes. The team observed that the licensee's assessment teams included members with the proper skills and experience to ensure effective self-assessments were conducted. The assessments were all self-critical and identified areas for improvement.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

The inspection team conducted approximately 26 individual interviews and seven focus groups discussions (consisting of approximately 50 people) during this inspection. The team also completed observations of plant activities and reviews of the corrective action and Safeteam (employee concerns) programs. The interviewees represented various functional organizations and ranged across contractor, licensee staff, and supervisor levels. The team conducted these interviews to assess whether conditions existed that would challenge the establishment of a safety-conscious work environment at Comanche Peak.

b. Assessment

The licensee maintained a safety-conscious work environment. The team determined that individuals were aware of the importance of nuclear safety, stated a willingness to raise safety issues, had not experienced retaliation in any prior issues raised, and had an adequate knowledge of the corrective action program and Safeteam (Employee Concern Program). In addition, the team noted that the Safeteam had demonstrated effective involvement in raising and addressing concerns.

No findings of significance were identified.

.5 Specific Issues Identified During This Inspection

a. Untimely Corrective Actions For Bailey/Asea Brown Boveri Positioners.

Introduction. The team identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for failure to take prompt corrective actions to address inadequate maintenance on a Bailey Type AV1 positioner, which resulted in the loss of one train of shutdown cooling.

Description. Non-cited Violation 05000445/2007007-02; 05000446/2007007-02 was issued for the failure to provide work instructions or procedures appropriate to the circumstances. Specifically, Work Order 3-05-333517-01 and Procedure INC-2085, “Rework and Replacement of I&C [Instrumentation and Control] Equipment,” Revision 3, directed the replacement of the Bailey Type AV1 positioner for valve 1-HCV-0607, "Residual Heat Removal Heat Exchanger 1-02 Flow Control Valve," but did not contain appropriate instructions for applying thread sealant or other measures to ensure the adjustment screw remained securely in place, despite operational experience in 1999 that indicated this action was necessary. As a result, valve 1-HCV-0607 failed to operate when called upon. The licensee entered the condition into their corrective action program as SmartForm SMF-2007-002087; however, the licensee failed to identify all the safety-related positioners affected.

SmartForm SMF-2007-001250, which addressed the failure of valve 1-HCV-0607 to close while in shutdown cooling mode, made the assumption that the inverted installation of the positioner was a contributing cause to adjustment screw vibrating in, but did not provide any engineering justification. As a result, corrective actions were taken to revise Maintenance Procedure PCN-INC-2085-R3-P6, "Bailey AV1 Positioners," which required the application of thread sealant to the adjustment screw following maintenance, and immediately applying thread sealant to the adjustment screws on the Bailey positioners for residual heat removal valves 1-HCV-0607, 1-HCV-0606, 2-HCV-0606, and 2-HCV-0607. These were the only valves which have this positioner model in similar installation configuration (installed upside down). However, the assumption that the inverted installation of the positioner was a contributing cause to adjustment screw vibrating in was not substantiated in any of the operating experience reports available. This information indicates that the adjustment screw can vibrate either direction, which would indicate that the orientation of the positioner might not have been a contributing factor. None of the available operating experience indicated the orientation of the positioners that failed, but information was available that the adjustment screw had vibrated in both directions. However, there are approximately 43 Bailey Type AV1 positioners installed in the plant including the atmospheric relief valves, which are safety-related. The licensee failed to apply thread sealant to the positioner screws for these eight valves and the licensee did not address the operability of these valves. This issue of untimely corrective actions was entered into the licensee's corrective action program as SmartForm SMF-2009-004054. The licensee took corrective actions by performing an operability determination, which provided reasonable assurance that the atmospheric relief valves were operable and completion of the thread sealant repairs could be reasonably delayed until the next scheduled outage.

Analysis. The failure to complete timely corrective actions for a previously identified non-cited violation is a performance deficiency. The finding was more than minor since it affected the Mitigation System Cornerstone attribute of availability and reliability of mitigating equipment, specifically the operability of the atmospheric relief valves. Using Manual Chapter 0609, Attachment 4, "Phase 1- Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance since it did not result in a loss of the safety system function. No crosscutting aspect was assigned because this issue was not indicative of current plant performance.

Enforcement. Criterion XVI of Appendix B to 10 CFR Part 50 requires, in part, that conditions adverse to quality are promptly identified and corrected. Contrary to this requirement from September 25, 2007, until August 11, 2009, the licensee failed to promptly correct a condition adverse to quality when they did not apply thread sealant to Units 1 and 2 safety-related atmospheric relief valves PV-2325, 2326, 2327, and 2328 positioner adjustment screws. Because this finding was entered into the licensee's corrective action program as SmartForm SMF-2009-004054, this violation is being treated as a non-cited violation in accordance with Section VI.A of the NRC Enforcement Policy: NCV 05000445/2009006-01; 05000446/2009006-01, "Untimely Corrective Actions for Bailey/Asea Brown Boveri Positioners."

4OA6 Meetings

Exit Meeting Summary

On August 14, 2009, the team presented the inspection results to Mr. M. Lucas, Site Vice President, and other members of your staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee-Identified Violations

None

ATTACHMENTS: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

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T. Cerny, Operations Shift Manager
T. Daskam, Regulatory Affairs
T. Gibbs, Safeteam
T. Gilder, Corrective Action Program Manager
J. Henderson, Engineer Smart Team Manager
T. Hope Nuclear Licensing Manager
D. Kross, Plant Manager
M. Lucas, Site Vice President
F. Madden, Director, Nuclear Oversight and Regulatory Affairs
D. McGaughey, Operation Support Manager
G. Mercka, Regulatory Affairs
C. Miller, Reliability Programs Team Supervisor
J. Meyer, Technical Support Manager
M. Pearson, Director, Performance Improvement
W. Reppa, System Engineering Manager
G. Ross, Centers Of Excellence Coordinator
S. Smith Director, Maintenance
J. Taylor, Plant Reliability Manager
D. Walling, Training Manager
D. Wilder, Plant Support Manager
L. Yeager, Design Engineer Analysis Manager
J. Patton, Quality Assurance Manager

NRC personnel

J. Kramer, Senior Resident Inspector
G. Werner, Branch Chief, Plant Support Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

05000445/2009006-01; 05000446/2009006-01	NCV	Untimely Corrective Actions For Bailey/Asea Brown Boveri Positioners

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

PROCEDURES

NUMBER	TITLE	REVISION
N/A	CPNPP Cause Analysis Handbook	11
N/A	Nuclear Policy Statement/Safety Culture Policy	N/A
OPGD 36	Operations Guidelines 36, Operator Burdens And Work - Arounds	0
ALM-0082A	Alarm Procedure Manual 1-ALB-8B	8
CMAR-96-156-00-00	290 Threadlocker adhesive/Sealant evaluation	N/A
CMAR-96-156-01-00	290 Threadlocker adhesive/Sealant evaluation	N/A
CMAR-96-156-02-00	290 Threadlocker adhesive/Sealant evaluation	N/A
CMAR-96-156-03-00	290 Threadlocker adhesive/Sealant evaluation	N/A
DBD-ME-003	Control Room Habitability	10
INC-2031	Valve Calibration Using Crane Nuclear AOV Control Valve Diagnostic Systems	0
INC-2031	Valve Calibration Using Viper Control Valve Diagnostic System	0
INC-2085	Rework and Replacement of I&C Equipment	3
INC-2085-R3-P6	Rework and Replacement of I&C Equipment	3
MG11	Procedure Change Request	2
MSE-C0-8002	Siemens Motor-Operator Adjustment and Operational Test	2
MSE-C0-8003	Circulating Water Discharge Valve Adjustment	1
MSE-C0-8807	MOVs/MODs Limit and Torque Switch Adjustment and Check	4
MSE-C0-8808	Siemens Actuator Refurbishment Size C and E	0
MSE-C0-8809	Siemens Actuator Refurbishment Size Q	0

NUMBER	TITLE	REVISION
MSE-C0-8813	SMC MOVs/MODs Limit and Torque Switch Adjustments and Checks	0
MSG-1060	Maintenance Section – Generic Manual	1
MSM-C0-6617	Fisher Actuator Maintenance	N/A
MSM-C0-8811	Fisher Globe Valve Designs EC, EAC,ES, and EAS	2
MSM-G0-0215	Mechanical Snubber Maintenance	1
MSM-G0-8202	Graphite Valve Packing and Live Loading	3
MSM-P0-8001	Cycle Isolation Boundary Leak Test	1
MSM-S0-5713	Diesel Generator Fuel Oil Storage Tank Cleaning	2
NQA-3.02	Audit and Surveillance Programs	3
ODA-207	Procedure Change Request	8
OPT-206B	AFW System Surveillance Test	20
OPT-206B	AFW System	18/19
OWI-206	Guidelines For Operation of Manual and Power Operated Valves	17
PPT-S1-9104B	TDAFW Pump Actuation and Response Time Test, Train B	2
PPT-S2-9103A	TDAFW Pump Actuation and Response Time Test, Train A	2
RPI-602	Radiological Surveillance and Posting	31/32

NUMBER	TITLE	REVISION
STA-114	Employee Concerns Program	2
STA-421	Condition-Deficiency Reporting	14
STA-422	CAP, Deficiency Resolution	22
STA-426	Operating Experience Evaluation	3
STA-602	Temporary Modifications	16
STA-606	Work Requests	29
STA-660	Control of High Radiation Areas	10/11
TSP-504	Software Change Implementation	0
TSP-506	Digital Action Requests	0
WCI-606	Work Requests	13

SMARTFORMS (CONDITION REPORTS)

SMF-2001-000969	SMF-2001-000986	SMF-2003-003670
SMF-2004-000374	SMF-2004-003528	SMF-2005-000661
SMF-2005-001496	SMF-2005-001666	SMF-2005-001669
SMF-2005-001896	SMF-2005-002150	SMF-2005-002313
SMF-2005-002354	SMF-2005-003034	SMF-2005-003489
SMF-2005-004591	SMF-2005-004611	SMF-2005-004764
SMF-2006-000592	SMF-2006-000655	SMF-2006-001749
SMF-2006-001927	SMF-2006-002184	SMF-2006-002811
SMF-2006-003310	SMF-2006-003594	SMF-2006-003632
SMF-2007-000050	SMF-2007-000173	SMF-2007-000453
SMF-2007-000468	SMF-2007-000903	SMF-2007-000909
SMF-2007-000919	SMF-2007-000923	SMF-2007-000934
SMF-2007-000937	SMF-2007-000952	SMF-2007-000978
SMF-2007-001466	SMF-2007-001904	SMF-2007-002004
SMF-2007-002232	SMF-2007-002909	SMF-2007-002959

SMF-2007-003171	SMF-2007-003220	SMF-2008 004006
SMF-2008-000077	SMF-2008-000304	SMF-2008-000536
SMF-2008-000640	SMF-2008-000768	SMF-2008-000814
SMF-2008-000882	SMF-2008-000934	SMF-2008-001280
SMF-2008-001670	SMF-2008-001887	SMF-2008-002010
SMF-2008-002110	SMF-2008-002171	SMF-2008-002315
SMF-2008-002329	SMF-2008-002398	SMF-2008-002500
SMF-2008-002536	SMF-2008-002736	SMF-2008-002752
SMF-2008-002999	SMF-2008-003010	SMF-2008-003048
SMF-2008-003101	SMF-2008-003231	SMF-2008-003245
SMF-2008-003313	SMF-2008-003315	SMF-2008-003341
SMF-2008-003362	SMF-2008-003459	SMF-2008-003460
SMF-2008-003512	SMF-2008-003558	SMF-2008-003575
SMF-2008-003591	SMF-2008-003662	SMF-2008-003689
SMF-2008-003690	SMF-2008-003696	SMF-2008-003709
SMF-2008-003719	SMF-2008-003726	SMF-2008-003767
SMF-2008-004006	SMF-2008-004034	SMF-2009-000056
SMF-2009-000083	SMF-2009-000278	SMF-2009-000333
SMF-2009-000534	SMF-2009-000672	SMF-2009-000708
SMF-2009-000749	SMF-2009-000855	SMF-2009-000860
SMF-2009-000863	SMF-2009-000915	SMF-2009-000970
SMF-2009-001104	SMF-2009-001332	SMF-2009-001687
SMF-2009-001688	SMF-2009-001768	SMF-2009-001836
SMF-2009-001846	SMF-2009-001895	SMF-2009-001916
SMF-2009-002055	SMF-2009-002106	SMF-2009-002143
SMF-2009-002162	SMF-2009-002682	SMF-2009-002854
SMF-2009-002862	SMF-2009-002863	SMF-2009-002865
SMF-2009-002868	SMF-2009-002869	SMF-2009-002872
SMF-2009-002873	SMF-2009-002875	SMF-2009-002878
SMF-2009-002880	SMF-2009-002883	SMF-2009-002885
SMF-2009-002888	SMF-2009-002889	SMF-2009-002890

SMF-2009-002892	SMF-2009-002893	SMF-2009-002895
SMF-2009-003304	SMF-2009-003307	SMF-2009-003309
SMF-2009-003310	SMF-2009-003312	SMF-2009-003313
SMF-2009-003314	SMF-2009-003317	SMF-2009-003319
SMF-2009-003320	SMF-2009-003322	SMF-2009-003323
SMF-2009-003325	SMF-2009-003327	SMF-2009-003329
SMF-2009-003338	SMF-2009-003340	SMF-2009-003342
SMF-2009-003346	SMF-2009-003348	SMF-2009-003349
SMF-2009-003352	SMF-2009-003353	SMF-2009-003355
SMF-2009-003363	SMF-2009-003366	SMF-2009-003368
SMF-2009-003369	SMF-2009-003372	SMF-2009-003375
SMF-2009-003377	SMF-2009-003378	SMF-2009-003379
SMF-2009-003383	SMF-2009-003386	SMF-2009-003388
SMF-2009-003397	SMF-2009-003399	SMF-2009-003400
SMF-2009-003401	SMF-2009-003421	SMF-2009-003422
SMF-2009-003425	SMF-2009-003436	SMF-2009-003440
SMF-2009-003443	SMF-2009-003456	SMF-2009-003520
SMF-2009-003534	SMF-2009-003543	SMF-2009-003560
SMF-2009-003534	SMF-2009-003543	SMF-2009-003560
SMF-2009-003564	SMF-2009-003576	SMF-2009-003584
SMF-2009-003813	SMF-2009-003823	SMF-2009-004302

WORK ORDERS

3534364	3579146	3612073
3626078	3640642	3644054
394700	394898	396486
3666355	3680701	3685047
3699658	3706379	3725997
3737512	3739001	395159
396720	397025	397028
405480	405733	408035

408975	414963	C87 1474
1-94-072005-00	1-95-081905-00	1-95-090098-00
1-95-092879-00	1-00-130758-00	1-05-161620-00
1-06-168440-00	4-06-171046-00	5-01-504634-AA
5-03-505620-AA	5-05-500262-AA	5-05-501037-AA
5-05-504833-AA	5-06-505772-AA	5-06-505954-AA

MISCELLANEOUS

NRC Information Notice 2005-23, “Vibration-Induced Degradation of Butterfly Valves”

NRC Information Notice 2008-11, “Service Water System Degradation at Brunswick Steam Electric Plant Unit 1”

NRC Information Notice 2008-20, “Failures of Motor-Operated Valve Actuator Motors with Magnesium Alloy Rotors”

NRC Information Notice 2006-26. “Failure of Magnesium Rotors in Motor-Operated Valve Actuators”

NRC Information Notice 2006-31, “Inadequate Fault Interrupting Rating of Breakers

Various Self-assessment and audit reports

Various control room and operator logs

Various quality assurance audits and assessments

TUE 91-2066, “Overtorque Condition During Component Test,” Revision 0

TUE 92-4246, “Potential Overthrust of Backseat Actuator,” Revision 0

TUE 92-4591, “Open Contactor Failure,” Revision 0

ONE 93-1867

ONE 94-1364

Information Notice 2008-02, “Findings Identified During Component Design Bases Inspections”

Information Notice 2008-09, “Turbine-Driven Auxiliary Feedwater Pump Bearing Issues”

Information Notice 2008-13, “Main Feedwater System Issues and Related 2007 Reactor Trip Data”

System Health Report for Reactor Coolant, 1st Quarter FY09

System Health Report for Safety Injection, 1st Quarter FY09

System Health Report for Auxiliary Feedwater, 1st Quarter FY09

System Health Report for Residual Heat Removal, 1st Quarter FY09

System Health Report for Containment Spray, 1st Quarter FY09

Evaluation- 2006-014, "CPSES Nuclear Overview Department Evaluation Report," dated August 29, 2006

Evaluation-2004-027, "CPSES Nuclear Overview Department Evaluation Report," dated November 15, 2004

Evaluation-2008-005, "CPSES Nuclear Overview Department Evaluation Report," dated April 14, 2008

51B8608, "80 Actuator 657 – ES Diaphragm Actuated Control Valve," Revision C

ME-CA-0000-5420, "The AOV Software with Technology, AOV Tag Nos. HV-2452-1, HV--2452-2," Revision 5

VL VDRT – 3572594, "Failure Analysis Report of Fisher 657-80 Nitrile Actuator Diaphragms in 1-LV-2701A and 1-HV-2452-1," dated August 18, 2008

Letter dated April 23, 1997, from Fisher Controls to Comanche Peak concerning nitrile diaphragms for air-operated valves
FDA Number FDA-2008-003558-01-00, "Final Design Authorization to Lower Pressure on Diaphragms in Air Operated Steam Admission Valves," dated January 6, 2009

CPSES/FSAR 3.1.5.8, "Criterion 57 – Closed System Isolation Valves," Amendment 102

NUREG- 0800, "Containment Isolation System," Revision 3

NUREG-0800, "Standard Review Plan 6.2.4 Containment Isolation System," Revision 2

Information Request

April 23, 2009
Comanche Peak Steam Electric Station
Problem Identification and Resolution Inspection Document Request
(IP 71152; Inspection Report 05000445/2009006; 05000446/2009006)

To the extent possible, please provide the information in electronic media. The agency's text editing software is MS Word 2003 version, Excel 2003 version, Power Point 2003 version, and Adobe Acrobat (.pdf) text files. However, we have limited document viewing capability for Corel WordPerfect 10, Presentations, and Quattro Pro.

The team will get updated lists et cetera during the first day onsite (July 27, 2009).

Please provide the following on a compact disk to Jim Drake by June 29, 2009:

U.S. Nuclear Regulatory Commission
Region IV
612 E. Lamar Blvd, Suite 400
Arlington, TX 76011
Attn: Jim Drake

The information can be posted to certrec or emailed earlier, as available, if desired.
Note: For requested summary lists, please include a description of problem, significance level, status, initiation date, and owner organization.

1. A complete copy of all Condition Reports (CRs) related to significant conditions adverse to quality that were opened or closed during the period, including a complete copy of any evaluations (Root Cause Evaluation or Apparent Cause Evaluation).

2. Summary list of all CRs that were generated since July 1, 2007.

3. List of all CRs that subsume or "roll-up" one or more smaller issues for the period

4. Summary list of all CRs that were up-graded or down-graded during the period

5. List of root-cause analyses completed during the period

6. List of root-cause analyses planned, but not complete at end of the period

7. List of all apparent cause analysis completed during the period

8. List of plant safety issues raised or addressed by the employee concerns program during the period

9. List of action items generated or addressed by the plant safety review committees during the period

10. Copy of quality assurance audits and surveillances of corrective action activities completed during the period

11. Summary list of all quality assurance audits and surveillances scheduled for completion during the period but which were not completed

12. Copy of corrective action activity reports, functional area self-assessments, and non-NRC third party assessments completed during the period (Do not include INPO assessments)

13. Copy of corrective action performance trending/tracking information generated during the period and broken down by functional organization

14. Copy of current revisions of governing procedures/policies/guidelines for:

    a. Condition reporting
    b. Corrective Action Program
    c. Root Cause Evaluation/Determination
    d. Operator work arounds
    e. Work requests
    f. Temporary modifications
    g. Procedure change requests
    h. Deficiency reporting and resolution
    I. Operating experience evaluation
    j. Safety culture policy/procedures
    k. Employee Concerns Program

15. List of external events and operating experience evaluated for applicability at Comanche Peak Steam Electric Station during the period

16. Copy of CRs or other actions generated for each of the items below during the period:

    a. Part 21 Reports
    b. NRC Information Notices and Bulletins
    c. LERs issued by Comanche Peak Steam Electric Station (also include a copy of the LERs)
    d. NCVs and Violations issued to Comanche Peak Steam Electric Station

17. Copy of security event logs during the period

18. Copy of radiation protection event logs during the period

19. Copy of current system health reports or similar information

20. Copy of current predictive maintenance summary reports or similar information

21. Copy of corrective action effectiveness review reports generated during the period

22. List of risk significant components and systems

23. List of corrective actions closed to other programs, such as maintenance action requests/work orders, engineering requests, etc.

24. List of degraded conditions and nonconformances under Generic Letter 91-18, which were not corrected in the last outage

25. Lists of operator work arounds, engineering review requests and/or operability evaluations, temporary modifications, and control room and safety system deficiencies opened or closed during the period

26. Copy of CRs associated with adverse trends in human performance, equipment, processes, procedures, or programs during the period