Luminant

Rafael Flores
Senior Vice President
& Chief Nuclear Officer
rafael.flores@luminant.com

Luminant Power
P O Box 1002
6322 North FM 56
Glen Rose, TX 76043

T 254 897 5590
C 817 559 0403
F 254 897 6652

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REF 10CFR50.73(a)(2)(i)(B)

September 18, 2014

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

SUBJECT: Comanche Peak Nuclear Power Plant, Docket No. 50-446,
Licensee Event Report 446 / 14-003-01, Two Pressurizer Safety Valves As-Found Lift Settings Outside Technical Specification Limits

Dear Sir or Madam:

Enclosed is Supplement 1 to Licensee Event Report (LER) 446 / 14-003-01, "Two Pressurizer Safety Valves As-Found Lift Settings Outside Technical Specification Limits," for Comanche Peak Nuclear Power Plant (CPNPP) Unit 2. This LER has been revised to update the safety consequences to reflect the recently completed confirmatory analysis.

This letter contains no new regulatory commitments regarding CPNPP Units 1 or 2.

If you have any questions regarding this report, please contact Timothy A. Hope at 254-897-6370 or timothy.hope@luminant.com.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: Fred W. Madden
Fred W. Madden
Director, External Affairs

IE22
NRR

Enclosure

c - Marc L. Dapas, NRC Region IV
Balwant K. Singal, NRR
Resident Inspectors, Comanche Peak Nuclear Power Plant

NRC FORM 366 (02-2014) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

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Comanche Peak Nuclear Power Plant (CPNPP) Unit 2	05000 446	1 OF 4

4. TITLE

Two Pressurizer Safety Valves As-Found Lift Settings Found Outside Technical Specification Limits

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
05	19	2014	14	003	01	09	18	2014	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
100	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
	☐ 20.2203(a)(2)(vi)	☑ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Timothy A. Hope, Manager, Regulatory Affairs	(254) 897-6370

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☑ NO				

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On May 19, 2014, Comanche Peak Nuclear Power Plant (CPNPP) Unit 2, discovered that two of the three Pressurizer Safety Valves (PSVs), which had been removed from the system and shipped off-site for testing in support of the fourteenth refueling outage, failed their as-found lift tests with lift pressures above the Technical Specification (TS) 3.4.10 setpoint of >/= 2410 psig and </= 2485 psig. These failures resulted in the determination that this condition was reportable pursuant to 10CFR50.73 (a)(2)(i)(B); "Any operation or condition which was prohibited by the plant's Technical Specifications."

There was no material condition issue associated with the PSVs that contributed to the test failures. The PSVs are performing within their design capabilities. The cause of the test failures was determined to be set point drift and the close tolerance required by the TS acceptance criteria. Additionally, it was also noted that the preventive maintenance frequency for the PSVs may have an effect on set point drift. As part of the correct action program, a revision to the preventive maintenance frequency is being considered.

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NARRATIVE

I. DESCRIPTION OF THE REPORTABLE EVENT

A. REPORTABLE EVENT CLASSIFICATION

Two of the three Pressurizer Safety Valves (PSVs) were identified as outside the Technical Specification (TS) 3.4.10 "Pressurizer Safety Valves" lift settings acceptance criteria. Based on a review of relevant information (e.g., the equipment history and cause of failure), there is no firm evidence that the failure to meet the lift setting requirements occurred prior to the time of discovery. However, the existence of similar discrepancies in multiple valves is an indication that the discrepancies may have arisen over a period of time and that the failure mode should be evaluated to make this determination. Therefore, to evaluate the similar discrepancies which could have existed during plant operation, this condition is conservatively reportable under 10 CFR 50.73(a)(2)(i)(B) ("Any operation or condition prohibited by the plant's Technical Specifications"). This is consistent with example 3 of Section 3.2.2 "Operation or Condition Prohibited by Technical Specifications" of NUREG 1022, Revision 3.

B. PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

On May 19, 2014, Comanche Peak Nuclear Power Plant (CPNPP) Unit 2 was in MODE 1, conducting a plant startup after its fourteenth refueling outage. The Reactor Coolant System (RCS) was at normal operating temperature and pressure (NOT/NOP). All Unit 2 PSVs had been removed during the fourteenth refueling outage, and previously tested spare PSVs had been installed prior to start up entry into MODE 5.

C. STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

There were no inoperable structures, systems, or components that contributed directly to the event.

D. NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES

On April 3, 2014 , one (1) Pressurizer Safety Valve (PSV) [EIIS: (AB)(PZR)(RV)] on CPNPP Unit 2 was removed from the system and was sent off-site to a facility for surveillance testing in support of the fourteenth refueling outage. Testing was performed using a procedure designed to comply with American Society of Mechanical Engineers (ASME) Operations and Maintenance (OM) Code Appendix I and Westinghouse Owner's Group guidance, using saturated steam as the test medium.

During as-found surveillance testing on April 4, 2014, the lift pressure of PSV 2-8010A was found to be 2489 psig, 4 psig above the Technical Specification (TS) 3.4.10 setpoint of >/= 2410 psig and </= 2485 psig. Since a failure of a Class 1 valve, in accordance with ASME OM Code (Mandatory Appendix I) requires expansion of sample for testing, the remaining Unit 2 PSVs (2 additional) were removed and sent to the off-site testing facility. The three Unit 2 PSVs were replaced with previously tested PSVs.

On May 19, 2014, after it was tested and verified, the as-found lift pressure of PSV 2-8010C was found to be 2488 psig, which is 3 psig above the TS SR setpoint acceptance range. PSV 2-8010B was found with an acceptable lift pressure. Both of the unsatisfactory Unit 2 PSVs are being reworked by the vendor and the as-left lift pressures will be verified to be within TS limits.

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NARRATIVE

E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE, OR PROCEDURAL OR PERSONNEL ERROR

The PSVs were being tested to satisfy the requirements of the CPNPP Inservice Testing Plan and to satisfy Technical Specification (TS) Surveillance Requirement 3.4.10.1. The unsatisfactory as-found lift pressures were discovered as the result of this test.

II. COMPONENT OR SYSTEM FAILURES

A. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Inability of the PSVs to perform within the close tolerance required by the Technical Specification (TS) acceptance criteria resulted in the two PSVs not meeting the TS SR 3.4.10.1 lift setpoint requirements. However, the ability of the components to perform their required function was not affected as described below in Section III.C "Safety Consequences and Implications of the event".

Based on discussions with the valve vendor, and the testing facility, deviations within this range are within the design requirements of the valve and do not indicate a material problem with the valves.

Therefore, there are no failed components.

B. FAILURE MODE, MECHANISM, AND EFFECT OF EACH FAILED COMPONENT

Not Applicable. – There were no component or system failures.

C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable - No failures of components with multiple functions have been identified.

D. FAILED COMPONENT INFORMATION

Not Applicable – There were no component or system failures.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable - No safety system responses occurred as a result of this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

The PSVs were initially set to be within Technical Specification limits in August 2009 (2-8010A) and October 2011(2-8010C) and were considered operable until they were determined to have been outside the TS Tolerances on April 4, 2014 and May 19, 2014 respectively.

However, in both situations in which the PSV lift pressures were out of the TS specified range, the PSVs were still capable of fulfilling their safety function (as described below in Section III.C).

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NARRATIVE

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

The PSVs operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each PSV is designed to relieve 420,000 pounds per hour of saturated steam at the relief set pressure.

Based on the availability of the three PSVs, the PSVs would have functioned to meet the overpressure protection function.

In conclusion, although two Unit 2 PSVs did not meet the setpoint acceptance criteria required by the CPNPP Technical Specifications, the Unit 2 PSVs were still capable of fulfilling their safety function. During the time period these PSVs were in service with the potential for set pressure drift, there were no plant events which challenged the PSVs.

Based on the above, it is concluded that the health and safety of the public was unaffected by this condition and this event has been evaluated to not meet the definition of a safety system functional failure per 10CFR50.73 (a) (2) (v).

IV. CAUSE OF THE EVENT

Based on an analysis of this event, performed by CPNPP Engineering Programs personnel having experience with these valves, the cause was determined to be a set point drift and the close tolerance required by the Technical Specification (TS) acceptance criteria. It was also noted that the preventive maintenance frequency for the PSVs may have an effect on set point drift.

A specific material condition cause of the setpoint drift could not be determined. The testing results were within the 3 percent acceptance range of ASME OM Code Appendix I. Per past discussions with the valve vendor, deviations within this range are within the design requirements of the valve and do not indicate a material problem with the valves.

V. CORRECTIVE ACTIONS

The two unsatisfactory Unit 2 PSVs are being reworked by the vendor and the as-left lift pressures will be verified to be within TS limits. The two unsatisfactory PSVs were replaced by previously tested spare PSVs prior to start up entry into MODE 5.

As part of the corrective action program, a revision to the preventive maintenance frequency is being considered.

VI. PREVIOUS SIMILAR EVENTS

Two similar events have occurred at CPNPP for which the as found set pressure was higher than the TS requirements for two or more PSVs due to set point drift (LER 446/94-18 on Unit 2 and LER 446/96-08 Unit 2).