



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

CP-201500355
TXX-15050

Ref. # 10CFR50.73

April 20, 2015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NOS. 50-445 AND 50-446
UNANALYZED CONDITION DURING MSSV TESTING
LICENSEE EVENT REPORT 445/15-001-00

Dear Sir or Madam:

Pursuant to 10CFR50.73(a)(2)(ii)(B), Luminant Generation Company LLC (Luminant Power) hereby submits enclosed Licensee Event Report (LER) 445/15-001-00, "Unanalyzed Condition during MSSV Testing," for Comanche Peak Nuclear Power Plant (CPNPP) Units 1 and 2.

This communication contains no new commitments regarding Comanche Peak Units 1 and 2.

Should you have any questions, please contact Mr. Jack Hicks at (254) 897-6725.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: 

Fred W. Madden
Director, External Affairs

Enclosure

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

JE22
NRR

LICENSEE EVENT REPORT (LER)

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

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 Records and FOIA/Privacy Service Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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.

1. FACILITY NAME Comanche Peak Nuclear Power Plant (CPNPP) Unit 1	2. DOCKET NUMBER 05000445	3. PAGE 1 OF 4
---	-------------------------------------	--------------------------

4. TITLE
UNANALYZED CONDITION DURING MSSV TESTING

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	DOCUMENT NUMBER
02	19	2015	15	001	00	04	20	2015	CPNPP Unit 2	05000446
									FACILITY NAME	DOCUMENT NUMBER

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: <i>(Check all that apply)</i> <table style="width:100%;"> <tr> <td><input type="checkbox"/> 20.2201(b)</td> <td><input type="checkbox"/> 20.2203(a)(3)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(C)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> </tr> <tr> <td><input type="checkbox"/> 20.2201(d)</td> <td><input type="checkbox"/> 20.2203(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(1)</td> <td><input type="checkbox"/> 20.2203(a)(4)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(i)</td> <td><input type="checkbox"/> 50.36(c)(1)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ix)(A)</td> </tr> </table>	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)				
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)																		
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)																		
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)																		
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)																		
10. POWER LEVEL 100	<table style="width:100%;"> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(ii)</td> <td><input type="checkbox"/> 50.36(c)(1)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iv)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iii)</td> <td><input type="checkbox"/> 50.36(c)(2)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(v)(A)</td> <td><input type="checkbox"/> 73.71(a)(4)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iv)</td> <td><input type="checkbox"/> 50.46(a)(3)(ii)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)</td> <td><input type="checkbox"/> 73.71(a)(5)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(C)</td> <td><input type="checkbox"/> OTHER</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(vi)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(B)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)</td> <td><input type="checkbox"/> VOLUNTARY LER</td> </tr> </table>	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> VOLUNTARY LER
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)																		
<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)																		
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)																		
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER																		
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> VOLUNTARY LER																		

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME Timothy A. Hope, Manager, Regulatory Affairs	TELEPHONE NUMBER (Include Area Code) 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 <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH: DAY: YEAR:
--	--

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

In late September 2014, just prior to the start of 1RF17, testing of Unit 1 Main Steam Safety Valves (MSSVs) was performed in accordance with maintenance procedure MSM-S0-8702. During the conduct of that maintenance, Maintenance personnel leave one of the two doors to the Main Steam-Main Feed room open for personnel egress in the event of a steam leak and for heat stress considerations. Testing of the MSSVs was completed satisfactorily and Unit 1 entered its scheduled refueling outage.

On February 19, 2015, it was determined the conduct of the MSSV testing had inadvertently placed Unit 1 in an unanalyzed condition. Furthermore, placing the Unit in an unanalyzed condition was reportable under 10CFR50.73(a)(2)(ii)(B).

The cause of this event was the MSSV testing work process did not consider the operability of safety related equipment when the Main Steam-Main Feed room doors were open. Corrective actions include revising procedures to provide site personnel with guidance sufficient to avoid situations such as the unanalyzed condition resulting from the MSSV testing.

All times in this report are approximate and Central Time unless noted otherwise.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME Comanche Peak Nuclear Power Plant Unit 1	2. DOCKET 05000 - 445	6. LER NUMBER			3. PAGE 2 OF 4
		YEAR	SEQUENTIAL NUMBER	REV NO.	
		2015	001	00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. DESCRIPTION OF THE REPORTABLE EVENT

A. REPORTABLE EVENT CLASSIFICATION:

10CFR50.73(a)(2)(ii)(B), "The nuclear power plant being in an unanalyzed condition that significantly degraded plant safety."

10CFR50.73(a)(2)(v), "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to:

- (A) Shut down the reactor and maintain it in a safe shutdown condition;
- (B) Remove residual heat; or
- (D) Mitigate the consequences of an accident."

B. PLANT CONDITION PRIOR TO EVENT:

On February 19, 2015, CPNPP Units 1 and 2 were in Mode 1 at 100% power.

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 at the start of the event that contributed to the event.

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

In late September 2014, just prior to the start of 1RF17, testing of Unit 1 Main Steam Safety Valves (MSSVs) was performed in accordance with maintenance procedure MSM-S0-8702. During the conduct of that maintenance, Maintenance personnel leave one of the two doors [EII:(SB)(DR)] to the Main Steam-Main Feed (MS-MF) room open for personnel egress in the event of a steam leak and for heat stress considerations. The door can remain open while test equipment is being set up and when testing is in progress and when personnel are in attendance within the compartment.

Testing of the MSSVs was completed satisfactorily and Unit 1 entered its scheduled refueling outage.

In late January 2015, the NRC Senior Resident questioned the conduct of the MSSV testing performed prior to the 1RF17 outage. He was concerned that the effect of leaving one of the room's watertight doors open had not been considered prior to conducting the maintenance. He stated that failure to evaluate the effect of leaving the watertight door open may have placed the Unit in an unanalyzed condition.

On February 19, 2015, following discussions with the NRC and CPNPP Engineering, Operations, and External Affairs, it was determined the conduct of the MSSV testing had inadvertently placed Unit 1 in an unanalyzed condition. Furthermore, placing the Unit in an unanalyzed condition was reportable under 10CFR50.73(a)(2)(ii)(B). In addition, this method of testing MSSVs was used in previous Unit 1 and Unit 2 outages, specifically, in the last three years prior to 1RF16, 2RF13, and 2RF14.

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

The unanalyzed condition was discovered by Engineering (Utility, Non Licensed) personnel during a review of Main Steam Safety Valve testing.

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

1. FACILITY NAME Comanche Peak Nuclear Power Plant Unit 1	2. DOCKET 05000 - 445	6. LER NUMBER			3. PAGE 3 OF 4
		YEAR	SEQUENTIAL NUMBER	REV NO.	
		2015	001	00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

II. COMPONENT OR SYSTEM FAILURES

A. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not applicable – No component or system failures were identified during this event.

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

Not applicable – No component or system failures were identified during this event.

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

Not applicable – No component or system failures were identified during this event.

D. FAILED COMPONENT INFORMATION

Not applicable – No component or system failures were identified during this event.

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

Emergency power distribution equipment in the Train A and B switchgear rooms was rendered inoperable as a result of this event with the Main Steam-Main Feed doors open for MSSV testing.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

The most notable Technical Specification (TS) Structures, Systems, and Components (SSCs) that could have been adversely affected by the event (doors impaired for maintenance) were the emergency power distribution equipment in the Train A and B switchgear rooms. The electrical supply to ECCS equipment in those rooms is required to be operable in Modes 1, 2, and 3 to mitigate a "loss of secondary coolant accident, including uncontrolled steam release or loss of feedwater (TSB 3.5.2)." The specified safety function of the impaired doors is a necessary and related support function for the emergency power distribution equipment in the switchgear rooms. That specified safety function is to prevent environmental effects from impacting equipment outside the MS/FW superpipe area that could be caused by an uncontrolled steam release from the superpipe as described in FSAR Section 3.6B. Since the environmental effects could have adversely affected both trains of emergency power distribution equipment, the condition is considered an Unanalyzed Condition that significantly compromised plant safety.

An evaluation was completed to document the risk increase for the CPNPP associated with the EQ doors impaired during the MSSV testing event. The risk evaluation demonstrated that the increase in plant risk was not risk significant for the times the EQ doors were impaired as the results did not exceed the industry accepted thresholds for risk significance from the PSA Applications Guide of IE-06 for Δ CDF and IE-07 for Δ LERF.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME Comanche Peak Nuclear Power Plant Unit 1	2. DOCKET 05000 - 445	6. LER NUMBER			3. PAGE 4 OF 4
		YEAR	SEQUENTIAL NUMBER	REV NO.	
		2015	001	00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

There were no actual safety consequences for this event. This is a postulated event and as such did not result in challenges to fission product barriers, control of radioactive materials, or the health and safety of the public. This event has been evaluated to meet the definition of a safety system functional failure per 10CFR50.73(a)(2)(v).

IV. CAUSE OF THE EVENT

During the MSSV testing prior to 1RF17, a Barrier Impairment Form (BIF) was generated as required. Even though the testing did not require the passage of hoses and cables through the door, the BIF addressed that as a limiting case. As appropriate, the BIF provided risk reducing measures to be taken due to the impairment of the watertight door. The BIF also alluded to the possibility of adverse effects to components in adjacent spaces should a steam line break occur during the maintenance.

Work Control personnel reviewing the BIF appear to have concerned themselves with the risk reducing measures and may not have given the BIF's evaluation due diligence. Contributing to this, the procedural guidance did not drive them to examine the impact of having the door impaired from a Current License Basis perspective. The work package was eventually routed to the Control Room for approval and the testing accomplished.

At no time during the review of the MSSV testing work package and BIF was the operability of safety related equipment on the other side of the impaired watertight door considered. The evaluation of potentially affected design functions of those SSCs on the other side of the impaired watertight door was excluded from the scope of the BIF based on the Engineer's misinterpretation of licensing basis requirements. CPNPP's procedures, instructions, or guidelines did not contain adequate regulatory guidance that would have resulted in such a review. Lacking this evaluation and adequate procedural guidance, the SRO did not consider the operability impacts of the impaired door.

Life Cycle Management of the Operability Determination and Hazard Barrier Control Program has been less than adequate as pertinent regulatory guidance has not been incorporated or referenced in procedures. These documents are flawed in that they lack clarity, specificity and/or internal consistency or are outdated. They failed to provide site personnel with guidance sufficient to avoid situations such as the unanalyzed condition resulting from the MSSV testing.

V. CORRECTIVE ACTIONS

The CPNPP Corrective Action Program will track the necessary revision to CPNPP procedures to require an Operability impact of any affected SSC identified in the Hazard Barrier Control Program. In addition, site procedures are being revised to strengthen the review of applicable guidance received in generic correspondence such as Regulatory Issue Summaries and Information Notices.

VI. PREVIOUS SIMILAR EVENTS

There have been no previous similar reportable events at CPNPP in the last three years.