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CP-200800938
Log # TXX-08091

Ref. # 10CFR50.73(a)(2)(i)(B)

July 14, 2008

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

SUBJECT: **COMANCHE PEAK STEAM ELECTRIC STATION**
DOCKET NO. 50-446
CONDITION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 446/08-002-00

REFERENCE:

Dear Sir or Madam:

Enclosed is Licensee Event Report (LER) 08-002-00 for Comanche Peak Steam Electric Station (herein referred to as Comanche Peak Nuclear Power Plant) Unit 2, "P-14 Trip Function for Steam Generator 2-02 Narrow Range Level Channel Inoperable Due to Mispositioned Hand Switch."

This communication contains no new licensing basis commitments regarding Comanche Peak Nuclear Power Plant (CPNPP) Unit 2.

IE22
NRR

Should you have any questions, please contact Gary Merka at (254) 897-6613.

Sincerely,

Luminant Generation Company LLC

Mike Blevins

By: Rafael Flores

Rafael Flores
Site Vice President

Enclosure

c - E. E. Collins, Region IV
B. K. Singal, NRR
Resident Inspectors, Comanche Peak

Enclosure to TXX-08091

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES: 8/31/2010

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 F52), 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.

LICENSEE EVENT REPORT (LER)

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

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4. TITLE
P-14 Trip Function for Steam Generator 2-02 Narrow Range Level Channel Inoperable Due to Mispositioned Hand Switch

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
									N/A	05000
05	22	2008	2008	002	00	07	14	2008	FACILITY NAME N/A	DOCUMENT NUMBER 05000

9. OPERATING MODE
Mode 1

10. POWER LEVEL
100%

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (*Check all that apply*)

☐ 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)
☐ 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)
☐ 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)	VOLUNTARY LER

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (*Include Area Code*)
Tim Hope – Nuclear Licensing Manager	(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
☐ YES (*If yes, complete 15. EXPECTED SUBMISSION DATE*) ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On May 22, 2008, Comanche Peak Nuclear Power Plant (CPNPP) Unit 2 was in Mode 1 operating at 100% power. At 1120 hours, while performing a Main Control Board walk down Operators found the Unit 2 Reactor Coolant System (RCS) Steam Generator (SG) Liquid Level hand switch for Loop 2, Protection Set I in the incorrect position. The incorrectly positioned hand switch rendered the high-high level trip function for SG 2-02 Protection Set I Narrow Range Level Channel inoperable and further review determined that the mispositioned switch had most likely existed since May 14, 2008, a period of time greater than allowed by Technical Specifications.

The cause of this event was an inadequate restoration step in the Channel Operational Test procedure. Corrective actions included issuing a Shift Order defining specific switch restoration requirements, revising all I&C procedures that involve manipulation of the SG level control switches, enhancing labeling on the SG level control hand switches, and reviewing the Operations training material associated with the SG water level alternate channel to ensure that it adequately addresses the TS implications.

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

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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)(i)(B); "Any operation or condition which was prohibited by the plant's Technical Specifications."

B. PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

On May 22, 2008, CPNPP Unit 2 was in Mode 1, operating 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 structures, systems, or components that were inoperable at the start of the event that contributed to the event.

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

On May 14, 2008, CPNPP Unit 2 was in Mode 1 operating at 100% power. At 1315 hours, a Reactor Operator (RO#1) (utility, licensed) began a Channel Operational Test (COT) and Channel Calibration on channel 2-L-0552 (SG 2-02 Protection Set II Narrow Range Level Channel) [EIIS: (SB)(SG)(CHA)]. This test is performed per Technical Specification (TS) Surveillance Requirement (SR) 3.3.2.5 and it verifies the accuracy of the channel sensor and associated signal processing equipment contained in the channel. Per step 6.5 of the test procedure, RO#1 positioned hand switch 2-LS-0529C (RCS SG Liquid Level Hand Switch for Loop 2, Protection Set I) [EIIS: (SB)(SG)(CHA)(HS)] to the 2-LY-0529 position (the alternate channel position). This renders P-14 (high-high level trip function) inoperable for channel 2-L-0529 (SG 2-02 Protection Set I Narrow Range Level Channel), requiring entry into TS Limiting Condition for Operation (LCO) 3.3.2 condition I, which has a 72 hour completion time to place the channel in trip or place the Unit in Mode 3 within 78 hours.

Step 9.17 of the COT procedure states "Notify the RO that the following hand switch may be positioned as required by plant conditions (Operations Sign Off): 2-LS-0529C "SG2 LVL CHAN SELECT." The restoration step was worded this way to allow flexibility for various plant conditions. An I&C technician (utility, non-licensed) notified a second Reactor Operator (RO#2) (utility, licensed) as directed by step 9.17 of the COT procedure. Procedure step 9.17 does not require concurrent verification, and the I&C Technician is not required to ensure the hand switch is returned to the preferred channel. RO#2 was unaware of the TS 72 hour completion time to place the channel in trip or place the Unit in Mode 3 within 78 hours with hand switch 2-LS-0529C in the 2-LY-0529 position. Since the COT procedure did not specifically direct hand switch 2-LS-0529C to be repositioned to the 2-L-0552 position (the normal controlling channel), RO#2 left 2-LS-0529C in the 2-LY-0529 position (the alternate channel position).

The Unit Supervisor (utility, licensed) performed the surveillance review for channel 2-L-0552 and believed that all actions had been completed to restore channels 2-L-0552 and 2-L-0529 to Operable status. At 1404, the channels were determined to be Operable and the Unit Supervisor exited the LCO. Between May 14 and May 22, 2008, Reactor Operators (utility, licensed) performed routine Main Control Board (MCB) walk downs. Since no annunciators or plant computer data are associated with the alternate channel selected, it was not readily apparent to the Reactor Operators performing the MCB walk downs that the alternate channel was controlling SG 2-02 level.

On May 22, 2008 at 1120 hours, during a routine MCB walk down, a Reactor Operator (RO#3) (utility, licensed) noticed that hand switch 2-LS-0529C was in the incorrect position. At 1137 hours, hand switch 2-LS-0529C was positioned to the normal controlling channel 2-L-0552.

Since P-14 for 2-L-0529 was inoperable for 8 days while hand switch 2-LS-0529C was in the incorrect position, and this exceeded the required completion time for placing the channel in trip within 72 hours or being in Mode 3 within 78 hours per LCO 3.3.2 Condition I, this condition is reportable per 10CFR50.73(a)(2)(i)(B); "Any operation or condition which was prohibited by the plant's Technical Specifications."

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

During a routine MCB walk down, a Reactor Operator (utility, licensed) noticed that hand switch 2-LS-0529C was in the incorrect position.

II. COMPONENT OR SYSTEM FAILURES

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

Not applicable – there were no component failures associated with this event.

B. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not applicable - there were no component failures associated with this event.

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

Not applicable - there were no component failures associated with this event.

D. FAILED COMPONENT INFORMATION

Not applicable - there were no component failures associated with this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable – no safety system responses occurred during this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

As discussed above, P-14 for 2-L-0529 was inoperable for 8 days while hand switch 2-LS-0529C was in the incorrect position.

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

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

During the time frame that hand switch 2-LS-0529C was in the 2-LY-0529 position, the Unit 2 SG 2-02 high-high level P-14 trip function was inoperable per TS. The P-14 signal provides the following functions when a high-high water level occurs in the SG: 1) trips the Main Feedwater Pumps, 2) trips the Main Turbine, and 3) generates a Feedwater isolation signal. Steam generator narrow range water level channel 2-L-0552 is required to be the controlling channel to preserve the control system/protection system isolation which affects the required protection logic in the presence of an assumed single active failure. With 2-L-0552 as the controlling channel, the P-14 level protection may be derived from a two of three coincident logic from channels 2-L-0527 (SG 2-02 Protection Set IV Narrow Range Level Channel), 2-L-0528 (SG 2-02 Protection Set III Narrow Range Level Channel) and 2-L-0529 (SG 2-02 Protection Set I Narrow Range Level Channel).

During the time frame that 2-LS-0529C was in the 2-LY-0529 position (from May 14 to May 22, 2008) channels 2-L-0527 and 2-L-0528 remained Operable. Even though channel 2-L-0529 was technically inoperable per TS 3.3.2 Condition I, it would still have been able to perform its trip function. During this event, a SG 2-02 high-high level condition did not occur on Unit 2. Since a failure of 2-L-0529 did not occur from May 14 to May 22, 2008, the P-14 signal would have been generated as required if a SG 2-02 high-high level condition had occurred during this time period.

Based on the above, it is concluded that the health and safety of the public were 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

The cause of this event was a RCS SG Liquid Level Hand Switch for Loop 2, Protection Set I being left in the incorrect position due to a less than adequate restoration step in a Channel Operational Test procedure. To allow flexibility for various plant conditions, the restoration step was vague and did not specifically direct the Reactor Operator to restore the switch to a position that would maintain compliance with the completion times in the TS.

V. CORRECTIVE ACTIONS

Immediate corrective actions included issuing a Shift Order to add switch restoration to the LCOAR termination requirements and to require use of Plant Status Control Aids whenever a MCB switch is out of its normal alignment.

As a part of the CPNPP Corrective Action Program, all I&C procedures that involve manipulation of the SG level control switches will be revised to provide specific restoration steps, labeling on the SG level control hand switches will be enhanced, and the Operations training material associated with the SG water level alternate channel will be reviewed to ensure that it adequately addresses TS implications.

VI. PREVIOUS SIMILAR EVENTS

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