

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Trojan Nuclear Plant										DOCKET NUMBER (2) 0 5 0 0 0 3 4 4										PAGE 13				
TITLE (4) Steam Generator Level Transmitters Improperly Calibrated																								
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)														
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES NA						DOCKET NUMBER(S) 0 5 0 0 0									
0	4	1	3	8	7	8	7	0	1	5	0	1	0	4	0	7	8	8	0 5 0 0 0					
OPERATING MODES (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																						
6		20.402(b)				20.406(a)				80.73(a)(2)(iv)				73.71(b)										
POWER LEVEL (10)		20.408(a)(1)(i)				80.28(a)(1)				80.73(a)(2)(v)				73.71(a)										
0 1 0 0		20.408(a)(1)(ii)				80.38(a)(2)				80.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 386A)										
		20.408(a)(1)(iii)				X 80.73(a)(2)(i)				80.73(a)(2)(vii)(A)														
		20.408(a)(1)(iv)				80.73(a)(2)(ii)				80.73(a)(2)(vii)(B)														
		20.408(a)(1)(v)				80.73(a)(2)(iii)				80.73(a)(2)(ix)														
LICENSEE CONTACT FOR THIS LER (12)																								
NAME Larry Hinson, Plant Review Board Engineer										TELEPHONE NUMBER 5 0 3 5 5 6 - 3 7 1 3														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																								
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC														
NA																								
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)				MONTH		DAY		YEAR						
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO														

ABSTRACT (Limit to 1400 words, i.e., approximately fifteen single-space typewritten lines) (16)

During April 13 through April 15, 1987, annual calibration of steam generator level transmitters was performed. Ten steam generator level transmitters were found apparently out-of-calibration such that they would not have actuated a turbine trip and feedwater isolation on high-high steam generator water level within the Technical Specification allowed value of less than or equal to 76%. Further investigation revealed that the calibration was performed improperly.

The cause of this event was procedure deficiency. The procedure did not specify that water should be completely drained from the transmitters prior to beginning the calibration. The transmitters were thus calibrated without being completely drained, and an error was introduced into the calibration process.

The level transmitters were properly re-calibrated to within the allowed tolerance. The calibration data sheets for these instruments have been revised to require draining water from the transmitters prior to calibration. I&C technicians were counseled on the need to completely drain the water from the level transmitters prior to performing calibration.

This event had no effect on public health and safety.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1) Trojan Nuclear Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 4 4 8 7 -	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
			0 1 5 -	0 1	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Description of Event

During the period of April 13 through April 15, 1987, the plant was in Mode 6 (refueling) with the Reactor Coolant System at about 95°F. Annual calibration of steam generator (SG) level transmitters (LTs) was in progress. The following transmitters were reported by Instrument and Control (I&C) technicians as being out-of-calibration:

<u>SG "A"</u>	<u>SG "B"</u>	<u>SG "C"</u>	<u>SG "D"</u>
LT 517	LT 527	LT 537	LT 547
LT 518	LT 528	LT 538	LT 548
	LT 529	LT 539	

These transmitters provide the following protection functions:

- (1) reactor trip on steam generator low-low water level
- (2) reactor trip on steam flow/feed flow mismatch coincident with low steam generator water level
- (3) turbine trip and feedwater isolation on steam generator water level high-high

The transmitters were reported as out-of-calibration low such that the Technical Specification allowed setpoint of less than or equal to 76% for steam generator water level high-high would have been exceeded.

Upon further investigation, it was determined that the I&C technicians performing the calibration had not completely drained the water from the transmitters prior to beginning the calibration. Failure to completely drain the water from the transmitters introduced a bias to the as-found calibration. This resulted in the transmitters being reported as out-of-calibration low, when in fact they may not have been out-of-calibration. The I&C technicians then adjusted the transmitters based on their perception that the transmitters were out-of-calibration.

Because the transmitters were adjusted without being completely drained, the actual as-found condition is unknown. Therefore, the 18 month surveillances required by Technical Specifications 4.3.1.1 and 4.3.2.1, while performed within the necessary interval, cannot clearly demonstrate operability of the level transmitters.

Cause of Occurrence

The cause of this event was procedure deficiency. The calibration procedure did not specify that water should be completely drained from the transmitters prior to calibration.

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This Licensee Event Report was submitted late since the plant engineering staff did not review the out-of-calibration forms until June 26, 1987, due to a heavy workload during the 1987 refueling outage.

Corrective Action

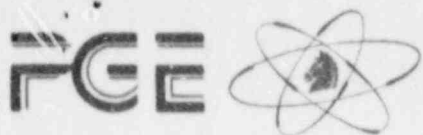
The steam generator level transmitters were properly re-calibrated to within the allowed tolerance. The calibration data sheets for these instruments have been revised to require complete draining of water from the transmitters prior to calibration. The calibration data sheets for other similar transmitters have also been revised in this manner. I&C technicians were counseled on the need to completely drain the water from the level transmitters prior to calibration.

The out-of-calibration investigation process is being revised to include computerized tracking methods to ensure evaluations are completed in a timely manner. An engineer will be responsible for implementation of the revised program which will be in place by May 1, 1988.

Significance of Occurrence

This event had no effect on public health and safety. There was no event that required actuation of the high-high steam generator level trip for reactor protection. Channel checks performed during the last operating cycle did not indicate that the transmitters were out-of-calibration.

A bench test was performed on a transmitter in both the dry and wet condition. A difference in the transmitter calibration was evident, and it was in the same direction and of similar magnitude as the difference observed between the wet and dry calibrations performed in April 1987 and July 1987, respectively. This is further indication that the transmitters were not out-of-calibration, but rather, the calibration method was incorrect.



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April 7, 1988
CAO-145-88

US Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

Licensee Event Report No. 87-15, Revision 1, is attached. This report updates an event in which the Technical Specification required surveillance for the steam generator level transmitters was performed incorrectly.

Sincerely,

C. A. Olmstead
General Manager
Trojan Nuclear Plant

c: Mr. John B. Martin
Regional Administrator
US Nuclear Regulatory Commission

Mr. William Dixon
State of Oregon
Department of Energy

Mr. R. C. Barr
USNRC Resident Inspector
Trojan Nuclear Plant

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