

### LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Palisades Nuclear Plant	DOCKET NUMBER (2) 0 5 0 0 0 2 5 5	PAGE (3) 1 OF 0 3
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TITLE (4)  
Inoperable Containment Building Water Level Instruments

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											
0	6	2	4	8	6	8	6	0	2	1	0	0	8	1	8	8	6	NA		
									DOCKET NUMBER(S)											
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OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 1 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 80.36(c)(1)	<input type="checkbox"/> 80.73(a)(2)(v)	<input type="checkbox"/> 73.71(a)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 80.36(c)(2)	<input checked="" type="checkbox"/> 80.73(a)(2)(vii)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 80.73(a)(2)(i)	<input type="checkbox"/> 80.73(a)(2)(viii)(A)	Voluntary Report						
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 80.73(a)(2)(ii)	<input type="checkbox"/> 80.73(a)(2)(viii)(B)							
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 80.73(a)(2)(iii)	<input type="checkbox"/> 80.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME Daniel G Malone, Senior Licensing Engineer, Palisades	TELEPHONE NUMBER AREA CODE: 6 1 6 7 6 4 - 8 9 1 3
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On June 24, 1986, technicians discovered that the power supplies to the containment floor water level instruments were deenergized, rendering both containment floor water level instruments inoperable. Evaluation of the occurrence determined that the power supplies were left in a deenergized condition following calibration of the system on January 9, 1986.

The event was caused by an inadequate calibration procedure which did not ensure that the switches utilized to energize or deenergize the power supplies were returned to the proper position following the calibration activity. Accordingly, the calibration procedure will be revised.

The Plant was in cold shutdown condition at the time of discovery.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

Description

On June 24, 1986, Instrument and Control (I&C) technicians discovered that the power supplies [JX] to the containment floor water level instruments (LE-0446A and LE-0446B) [LI;NH] were deenergized, rendering both containment floor water level instruments inoperable. The Plant was in cold shutdown condition at the time of discovery.

Subsequent evaluation of the occurrence determined that the power supplies were left in a deenergized condition following calibration of the containment floor water level monitoring system on January 9, 1986, while the Plant was shutdown for refueling. Consequently, for all plant operation between January 9, 1986 and the discovery date (approximately 8 weeks during March, April and May), the containment floor water level instruments should have been operable.

The containment floor water level instruments were installed in response to NUREG-0737, Topic II.F.1(5), which requires that continuous indication of containment water level be provided in the control room. Accordingly, the instruments were included in a Technical Specifications change request to the NRC dated June 25, 1982. Since a Technical Specifications amendment has not yet been granted for these instruments, the occurrence is not reportable under 10 CFR 50.73 (a)(2)(i)(B), or under any other item of 10 CFR 50.73. However, since it is both our desire and that of the NRC that these instruments be available for use, the occurrence is being reported as a voluntary report.

Cause

The occurrence was caused by an inadequate calibration procedure (Surveillance Procedure RI-68), which did not contain sufficient information to ensure that the power supplies for the containment floor water level instruments were switched back to an energized position following the calibration of the system.

The two switches utilized to energize/deenergize the individual power supplies are contained in separate junction boxes, located in the Cable Spreading Room. The switches are three-position, horizontally mounted toggle switches, with the left position being the "on" position, the center position being the "off" position, and right position being the "ref" position. During a portion of the calibration, the switches must be moved from the "on" position to the "ref" position, and held there to give a full scale indication. The switches are spring loaded to return from the "ref" position to the "off" position when released. Following the calibration on January 9, 1986, the I&C technician did not reposition the switches from the "off" position to the "on" position. The procedure utilized for the calibration did not contain a verification that the switches were returned to the correct position, or an overall final system check which would positively determine that the system was being left in an operable condition.

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		8 6	- 0 2 1	- 0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 3054's) (17)

A channel comparison of the containment floor water level instruments is performed on each shift to verify continued operability of the instruments. Since the instruments would normally read zero when operable, and upon being deenergized still read approximately zero, the inoperable condition was not recognized. This being the case, the existing channel check was inadequate as a positive determiner of instrument operability.

Corrective Action

The calibration procedure (RI-68) will be revised to incorporate switch position verification and final loop calibration to ensure that the containment floor water level monitoring system is functioning properly at the conclusion of the calibration activity.

A definitive method of determining the continued operability of the containment floor water level monitoring system on each operating shift will be developed and implemented.

Similar checks of instrument operability which are performed on each shift will be reviewed and enhanced as necessary to ensure that instrument operability is positively ascertained.

Analysis of the Event

The inoperability of the containment floor water level instruments had no safety impact in that during the period of inoperability, no situation existed in which information from the instruments would have been needed or utilized. The instruments do not activate any additional equipment necessary to prevent or mitigate the consequences of an accident.

In the event that a major breach of the Primary Coolant System (PCS) [AB] would have occurred during the period of inoperability, fluid buildup inside the containment building would first be detected by the containment sump water level instruments [LI;NH]. At 100% level indication from the containment sump water level instruments, the containment floor water level instruments would normally indicate slightly greater than zero, due to a small amount of overlap in the ranges detected by the two level monitoring systems. As water would also be added from Safety Injection [BQ] and Containment Spray [BE] Systems, the lack of increasing level indication on the containment floor water level instruments would have been observed, disclosing the obvious inoperability of these instruments. Upon discovery, restoration of the system could have been readily accomplished by repositioning the switches on the power supplies to the "on" position. Consequently, little additional safety impact is incurred even under postulated post loss of coolant accident (LOCA) conditions.

Additional Information

No similar occurrences have been identified which relate to this occurrence.



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US Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -  
LICENSEE EVENT REPORT 86-021 - INOPERABLE CONTAINMENT BUILDING WATER LEVEL  
INSTRUMENTS

Licensee Event Report (LER) 86-021, (Inoperable Containment Building Water  
Level Instruments) is attached. This event is being reported to the NRC as a  
voluntary report.

Brian D Johnson  
Staff Licensing Engineer

CC Administrator, Region III, USNRC  
NRC Resident Inspector - Palisades

Attachment

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