NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)
Containment Isolation Valves Fail Local Leak Rate Testing

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	DOCKET NUMBER(S)
0 4	2 1	8 6	8 6	— 0 0 5	— 0 0	0 5	2 1	8 6	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 5
POWER LEVEL (10): 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Scott A. Bauer, Onsite Regulation Engineer	AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	K M	I S V	B 2 5 0	Yes							

SUPPLEMENTAL REPORT EXPECTED (14)

	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)				
X NO				

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

On April 21, 1986, the Plant was shut down in Mode 5 for a maintenance and refueling outage. While performing Type C local leak rate testing (LLRT), as defined in 10 CFR 50, Appendix J, the two Containment isolation valves in Penetration P-57-2, chilled water return line, were found to have excessive leakage.

These valves have rubber seats installed in the valve body which have a history of separating from the valve body. This problem was previously reported in Licensee Event Reports 80-13 and 81-11 for the outside Containment isolation valve. These valves, as well as the two valves in the chilled water supply line, have been replaced.

This event has caused the integrated leak rate test scheduled for this year to have exceeded the Technical Specification limit in accordance with the clarification provided in IE Information Notice 85-71.

No unmonitored releases to the atmosphere occurred as a result of this event. The failure of the two chilled water valves to pass LLRT could not, by itself, provide a direct path for leakage from the Containment atmosphere to the outside atmosphere since the chilled water system is a closed system.

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

DESCRIPTION OF EVENT

On April 21, 1986, local leak rate testing (LLRT) was being performed with the Plant in Mode 5 (ie, cold shutdown ≤200°F). While testing Penetration P-57-2, chilled water return line, the leakage past isolation valves MO-10013 and CV-10014 was excessive. The penetration would not hold pressure and therefore, no leakage measurements could be made.

Upon inspection of the valves, it was discovered the rubber valve seats had separated from the valve body. One of these valves, CV-10014, failed leak tests in 1980, 1981 and 1985 from the same cause and was the subject of Licensee Event Reports 80-13 and 81-11. CV-10014 and MO-10013, as well as MO-10016 and CV-10015, on the chilled water supply line were scheduled for replacement in 1985; however, the replacement valves were not received in time for installation during the 1985 outage. The valves were replaced during the current maintenance and refueling outage.

CAUSE OF OCCURRENCE

The cause of the LLRT failure of MO-10013 and CV-10014 is an improper application of the valve design. This type of rubber valve seat has a history of separating from the valve body. The process for installing the rubber valve seat is a proprietary process best performed by the manufacturer of the valves at his facility.

CORRECTIVE ACTION

The Containment isolation valves in both the chilled water supply and return lines have been replaced with new valves of a proven design.

A review of other containment isolation valves was conducted to determine if any other valves have a history of LLRT failures. One other valve, CV-4301, in the radioactive gaseous waste system, has been a problem valve and is being replaced this year as well since it has a history of leakage problems.

Since the leakage rate through the failed valves was not measurable and the valves will be replaced prior to the integrated leak rate test (ILRT) scheduled for this year, the ILRT has been determined to have exceeded the Technical Specification limit per the guidance given in IE Information Notice 85-71. In accordance with Technical Specification 3.6.1.2, failure of an ILRT (Type A test) requires the schedule for subsequent tests to be reviewed and approved by the NRC. Following completion of the ILRT, our proposed schedule for subsequent ILRTs will be submitted for review and approval.

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

SIGNIFICANCE OF OCCURRENCE

The failure of the two chilled water valves to pass LLRT could not, by itself, provide a direct path for leakage from the Containment atmosphere to the outside atmosphere since the chilled water system is a closed system. The chilled water lines are not, however, seismically qualified and had a seismic event occurred resulting in failure of the lines both inside and outside Containment, a direct path to the outside atmosphere would have existed.

There was no effect on the health and safety of the public from this event because the chilled water system remained closed and there were no uncontrolled releases to the atmosphere.

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Trojan Nuclear Plant
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(503) 556-3713

May 21, 1986
WSO-180-86

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

Licensee Event Report No. 86-05 is attached.

Sincerely,

W. S. Orser
General Manager
Trojan Nuclear Plant

Attachment

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

Mr. Lynn Frank, Director
State of Oregon
Department of Energy

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