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)
PALISADES NUCLEAR PLANT	0 5 0 0 0 2 5 5	1 OF 0 3

TITLE (4)

Failure To Meet Tech Spec Action Statement Associated With Linear Heat Rate

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)
									N/A	0 5 0 0 0
0 4	2 7	8 7	8 7	0 1 4	0 0	0 5	2 7	8 7	N/A	0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
N		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 9 9		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)	X 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
	AREA CODE
CSKozup, Technical Engineer, Palisades	6 1 6 7 6 4 - 8 9 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	
A											

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)

Abstract

On April 27, 1987 at 1758, the Primary Data Logger (PIP) computer [IG;CPU] memory failed. The PIP computer failure caused the incore alarm system [IG;RI] to be inoperable. At the time of this failure, the excore nuclear instrumentation [IG;RI] system was also inoperable. Technical Specification (TS) 3.23.1 implies that with both monitoring systems inoperable, reactor power shall be reduced to 85% or less within two hours and incore readings manually collected at the terminal blocks on the Control Room. Contrary to the above, reactor power was greater than 85% at 1958. The reactor power level was at 99.8% of rated power at the time of the event.

Operations personnel on-shift at the time of the event interpreted TS 3.23.1 to permit continued power operation at 85% of rated power as long as reactor power readings were recorded manually on a minimum of ten incore instruments within four hours and at least every two hours thereafter. However, on-shift personnel felt no time limits were imposed for power reduction to 85%. An orderly power reduction was then initiated at three percent per hour.

At 2100, the PIP computer and incore alarm system were returned to service.

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1/1

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

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

Description

On April 27, 1987 at 1758, the Primary Data Logger (PIP) computer [IG;CPU] memory failed. The PIP computer failure caused the incore alarm system [IG;RI] to be inoperable. At the time of this failure, the excore nuclear instrumentation [IG;RI] system was also inoperable. Technical Specification (TS) 3.23.1 implies that with both monitoring systems inoperable, reactor power shall be reduced to 85% or less within two hours and incore readings manually collected at the terminal blocks on the Control Room. Contrary to the above, reactor power was greater than 85% at 1958. The reactor power level was at 99.8% of rated power at the time of the event.

Either of the two core power distribution monitoring systems (the incore alarm system or the excore monitoring system) provides adequate monitoring of the core power distribution and is capable of verifying that the LHR does not exceed its limits. The incore alarm system performs this function by continuously monitoring the local power at many points throughout the core and comparing the measurements to pre-determined setpoints above which the limit on LHR could be exceeded. The excore monitoring system performs this function by providing comparison of the measured core AO with pre-determined AO limits based on incore measurements. The inclusion of the axial power distribution term ensures that the operating power distribution is enveloped by the design power distributions.

Operations personnel on-shift at the time of the event interpreted TS 3.23.1 to permit continued power operation at 85% of rated power as long as reactor power readings were recorded manually on a minimum of ten incore instruments within four hours and at least every two hours thereafter. However, on-shift personnel felt no time limits were imposed for power reduction to 85%. An orderly power reduction was then initiated at three percent per hour.

At 2100, the PIP computer and incore alarm system were returned to service.

Cause Of The Event

Review of the circumstances of April 27 and TS 3.23.1 indicate the cause of the TS misinterpretation was due to poorly worded Action Statements associated with the monitoring of Linear Heat Rate (LHR).

Corrective Action

A formal revision to Technical Specification 3.23.1 will be submitted providing clarification as to conditions which require alternate monitoring for Linear Heat Rate. This clarification will include acceptable reactor power levels for continued Plant operation and times at which these power levels must be reached.

Prior to TS change request submittal, Standing Order 54 will be revised to include these clarifications such that, until a TS Amendment is received, clear direction will be provided to Plant Operators.

Analysis Of The Event

The ability to monitor for, and limitations associated with, LHR ensure that, in the event of a Loss of Coolant Accident (LOCA), the peak temperature of the cladding will not exceed 2200°F. On-shift Operations personnel initiated actions to allow manual monitoring of LHR within four hours as prescribed by TS 3.23.1, Action 3. The PIP computer and incore monitoring system were returned to service at 2100, 50 minutes prior to the requirements to initiate manual recording.

No incore alarms had been received directly prior to the PIP computer and subsequent incore alarm system failure.

The failure to reduce the reactor power level to 85 percent or less is being reported per 10CFR50.73 (a)(2)(i) as a condition prohibited by Technical Specifications.

Consumers Power
POWERING MICHIGAN'S PROGRESS
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May 27, 1987

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
LICENSEE EVENT REPORT 87-014 - FAILURE TO MEET TECHNICAL
SPECIFICATION ACTION STATEMENT ASSOCIATED WITH LINEAR HEAT RATE

Licensee Event Report (LER) 87-014, (Failure To Meet Technical Specification Action Statement Associated With Linear Heat Rate) is attached. This event is reportable to the NRC per 10CFR50.73(a)(2)(i).

Brian D Johnson
Staff Licensing Engineer

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

Attachment

IE22
1/1

OC0587-0076-NL02