

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Zion StationDOCKET NUMBER (2)
0 5 0 0 0 2 9 5 1 OF 0 2

TITLE (4)

Failure of 1MOV-SI8806

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	6	1	1	8	5	8	5	0	2	2	0	5	0	0	0	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)																																	
3	<table border="1"><tr><td>20.402(b)</td><td>20.406(c)</td><td>50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.406(a)(1)(i)</td><td>50.38(c)(1)</td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.406(a)(1)(ii)</td><td>50.38(c)(2)</td><td><input checked="" type="checkbox"/> 50.73(a)(2)(vii)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td></tr><tr><td>20.406(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td>50.73(a)(2)(viii)(A)</td><td></td></tr><tr><td>20.406(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td>50.73(a)(2)(viii)(B)</td><td></td></tr><tr><td>20.406(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(ix)</td><td></td></tr></table>										20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)	20.406(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)	20.406(a)(1)(ii)	50.38(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)		20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)		20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	
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20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)																																
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20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)																																

NAME
James A. TiemannTELEPHONE NUMBER
3 1 2 7 4 6 - 2 0 8 4

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	CAUSE	SYSTEM
A	B	I	J	X	L	2	0	0	Y		

SUPPLEMENTAL REPORT EXPECTED (14)
☐ YES (If yes, complete EXPECTED SUBMISSION DATE) ☒ NOEXPECTED SUBMISSION DATE (15)
MONTH DAY YEAR

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

On 6/11/85, 1MOV-SI8806 (refueling water storage tank isolation to safety injection pump suction) failed to close during testing. Unit 1 was in hot shutdown, at 0% power.

The ensuing investigation revealed pinched leads in the valve operator motor compartment. Motor current was found high on 2 phases before the motor burned out. The failure was due to a single phase surge, probably the result of pinched leads.

It is believed that the leads were pinched following maintenance work performed during the 1985 Unit 1 refueling outage. This valve is oriented such that work space is very limited, and therefore maintenance activities were hampered.

To prevent recurrence, all Electrical Maintenance crews will be trained, reemphasizing the need to ensure all leads are properly routed prior to reassembly.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) Zion Station	DOCKET NUMBER (2) 0 5 0 0 0 2 9 5 8 5 - 0 2 2 - 0 0 0 2 OF 0 2				LER NUMBER (6)			PAGE (3)		
					YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

On 6/11/85 at 1000 hours, 1MOV-SI8806 (refueling water storage tank isolation to safety injection pump suction) failed to close during testing. The motor control center tripped repeatedly when operators attempted to close the valve. Unit 1 was in mode 3, hot shutdown at 0% power.

The ensuing investigation revealed high current on the motor. The motor/operator was then removed from the valve for further testing. At this time evidence of oil and pinched leads were found in the motor compartment. The motor was retested in the presence of a representative from Limitorque Corporation. Motor current was found high (8 amps; 2 is normal) on 2 phases before the motor burned out. The motor was sent offsite for repair to National Electric Coil where it was determined that the motor failed due to a single phase surge. This failure mode is consistent with the previously discovered pinched leads.

1MOV-SI8806 was found to be operating satisfactorily during an environmental qualification inspection performed during the Unit 1 1985 spring refueling outage. It is believed that the leads were pinched upon reassembly after the EQ inspection. This valve is oriented such that work space is very limited, and therefore maintenance activities are hampered.

1MOV-SI8806 is normally in its safeguards position, open, but is closed for testing on a quarterly basis. If the motor had failed when the valve was closed, safety injection trains A and B would have been momentarily inoperative if required during the initial injection phase of a LOCA. Manual operation of the valve was not affected, and could have been used to open the valve.

A similar occurrence is documented in DVR 22-1-83-120. However, the apparent cause of the 1983 failure was dirty contacts in the MCC.

To prevent recurrence, all Electrical Maintenance crews will be instructed, reemphasizing the need to ensure all leads are properly routed prior to reassembly. The instruction will be tracked by station commitment #295-180-85-022.



Commonwealth Edison

Zion Generating Station
Shiloh Blvd. & Lake Michigan
Zion, Illinois 60099
Telephone 312/746-2084

July 11, 1985

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

References: 10CFR50

Dear Sir:

The enclosed Licensee Event Report from Zion Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73 (a)(2)(vii) which requires a 30 day written report when a single cause or condition caused two independent trains or channels to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe shutdown condition, remove residual heat, control the release of radioactive material, or mitigate the consequences of an accident.

This report is number 85-022-00, Docket No. 50-295/DPR-39.

Very truly yours,

J. A. Raetz

for

K. L. Graesser
Station Manager
Zion Generating Station

KLK/rmm

Enclosure: Licensee Event Report No. 85-022-00

Attachment

cc: J. G. Keppler, NRC Region III Administrator
M. Holzmer, NRC Resident Inspector
INPO Record Center
CECo Distribution List

1622
1/1