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)
Zion, Unit 1	0 5 0 0 0 2 9 5	1 OF 0 2

TITLE (4)
Partial Loss of Component Cooling

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	1 7	8 5	8 5	0 1 5	0 0	0 5	1 7	8 5	Zion, Unit 2	0 5 0 0 0 3 0 4
										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)			
6	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 1 0 0	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
James Boerger, Technical Staff Engineer	AREA CODE 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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
D	C C	R V	C 7 1 1	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)

Shortly after stopping a component cooling pump, the relief valve 1CC9428 (CC excess letdown Hx) lifted and remained open due to a mis-positioned nozzle ring. Unit one was in refueling mode and Unit two was at 99% power operation. This type of event has happened twice previously at Zion (LER #85-008-00/05000295 and DIR #84-020-00). In the follow-up to DIR #84-020-00, it was decided to keep 1(2) CC9428 isolated pending further investigations. The component cooling to the excess letdown heat exchanger was to remain valved out on both units unless absolutely necessary. Since the second relief lifting event, the station has been working on properly resetting the improperly set nozzle rings, which caused the problem, on all CC relief valves, at the earliest possible date. Before 1CC9428 had been reset, however, a ten year ISI hydrostatic test valve lineup unisolated the line containing the relief valve and failed to re-isolate it in the restored valve lineup. The pressure spike from stopping a pump caused it to lift. Since the nozzle ring was still set incorrectly, it failed to reseat until the line was again isolated.

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

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

Shortly after stopping component cooling pump OE, the relief valve 1CC9428 (CC to excess letdown Hx) lifted and remained open. Unit one was in refueling mode and Unit two was at 99% power. Two similar events of this nature have happened at Zion and are covered in DIR #84-020-00 and LER #85-008-00/05000295. The problem with the relief valves sticking open was identified in LER #85-008-00 as improperly set nozzle rings. Also, as a result of DIR #84-020-00, the valve 1CC9428 was isolated by manually isolating 1CC9499, and it was decided to keep it isolated unless absolutely necessary. Upon realization of the nozzle ring problem, the station began to check and reset all of the relief valves which potentially could have been improperly set. 1CC9428 (570 gpm) was not given a high priority for repair since it was isolated and there should have been no reason to unisolate it since Unit one was in a refueling outage.

The Unit one outage had a ten year ISI hydrostatic test scheduled that included component cooling piping and the relief valve. The procedure for this test had been written before the System Operating Instructions changed the normal position of the manual isolation valve (1CC 9499) from open to closed. Thus, on the restored valve lineup, the test procedure left the relief unisolated. This event initially confused operating personnel who thought that it was isolated and initially checked other sources for the leakage when the low flow alarm came in. Make-up to the surge tank, however, was started immediately after the alarm came in and no cavitation of the CC pumps was apparent as the lowest surge tank level was noted at nine inches. The inlet valve 1CC9499 was soon identified as open and isolated. Approximately 6000 gallons of water was dumped to Unit one containment.

In response to this problem, through OSR/024/85 the station has taken the stand of caution carding all valves whose position is crucial if a specific relief valve is suspected of being set improperly on Unit 2. These relief valves will be reset at the earliest possible time, when Unit 2 is in the appropriate mode. The relief valve on CC to excess letdown Hx on Unit 2 has already been properly reset, so the need for isolation of that valve no longer exists. Unit one is no longer a concern as the relief valve which required isolation has been properly reset, and all other relief valves on that unit will be reset before unit start up.

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

May 17, 1985

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

References: 10CFR73

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)(v) which requires a 30 day written report when any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to:

(A) Shutdown the reactor and maintain it in a safe shutdown condition;

(B) Remove residual heat;

(C) Control the release of radioactive material; or

(D) Mitigate the consequences of an accident.

This report is number 85-015-00, Docket No. 295/DPR-39.

Very truly yours,

T. A. Rieck

for K. L. Graesser
Station Manager
Zion Generating Station

KLG/rmm

Enclosure: Licensee Event Report No. 85-015-00

Attachment

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

IE22
1/1