



Commonwealth Edison

Zion Generating Station
101 Shiloh Blvd.
Zion, Illinois 60099
Telephone 312/746-2084

October 16, 1989

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

Dear Sir:

The enclosed revised Licensee Event Report number 89-01-01, Docket No. 50-295/DPR-38 from Zion Generating Station is being transmitted to you as a result of Inspection Number 295/89015.

Very truly yours,

for
T. P. Joyce
Station Manager
Zion Generating Station

TPJ/rmd

Enclosure: Licensee Event Report

cc: NRC Region III Administrator
NRC Resident Inspector
INPO Record Center
CECo Distribution List

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8910240312 891016
PDR ADOCK 05000295
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1/1

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Zion Unit 1 Docket Number (2) 0 5 10 10 10 12 19 15 Page (3) 1 of 0 3

Title (4); OBN Service Water Area Vent Fan Aircraft Crash Damper Found Failed Open Due to Faulty Valve

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	1	1	2	8	9	8	9	0	1	1	0	1	6	8	9	N/A	

OPERATING MODE (9) 1

POWER LEVEL (10) 0 6 0

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

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> Other (Specify in Abstract below and in Text)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Stan Berczynski, Tech Staff Engineer ext. TELEPHONE NUMBER: AREA CODE 3 1 2 7 4 6 -2 10 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS
X	U	A	S S V A	4 9 9	N				

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 December 19, 1988 at 2100 hours with Unit 1 at 60% power, an Operating Department B-man on his shiftly rounds noticed the OBN Service Water Area vent fan [UA] aircraft crash damper was open with the fan off. A Shift Foreman was notified and, after several unsuccessful attempts to close the damper, a work request (#Z-76749) was issued to the Mechanical Maintenance (MM) Department to repair and close the damper.

The Shift Control Room Engineer (SCRE) then started an hourly firewatch for an inoperable fire barrier. The Technical Specifications require the damper to be operable or to be in its accident position. The damper was not closed until two days later.

There was minimal safety significance due to this incident due to the short time the damper was open. The apparent cause was a sticking control air valve that did not reclose the damper following a planned brief bus outage. The valve was replaced and the damper returned to normal service.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

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 9	- 0 0 1	- 0 1	0 2	OF	0 3

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

A. CONDITION PRIOR TO EVENT

MODE 1 - Power Operation RX Power 60% RCS [AB] Temperature/ Pressure 560 *F/2235 psig

B. DESCRIPTION OF EVENT

On December 19, 1988 at 2100 hours with Unit 1 at 60% power, an Operating Department B-man on his shift rounds noticed the OBN Service Water Area vent fan [UA] aircraft crash damper was open with the fan off. This is a violation of Technical Specification 3.17.2.1 which requires the damper to be closed (its accident position) whenever the fan is off or inoperable. A Shift Foreman was notified and after several unsuccessful attempts to close the damper, a work request (#Z-76749) was issued (also on December 19, 1989) to the Mechanical Maintenance (MM) Department to repair and close the damper (the damper was repaired and closed by December 21, 1988). In the meantime a PT-14 (#88-0-148) was started to monitor the inoperable damper with an hourly firewatch. (The SCRE initiated a firewatch mistakenly and did not write a DVR until January 12, 1989 when the Station Fire Marshall pointed this out to him and had him cancel the firewatch).

C. APPARENT CAUSE OF EVENT

The apparent cause of the event was a sticking control air valve that did not reclose the damper following a momentary loss of Bus 248 voltage (approximately 10 seconds) during a Technical Staff Surveillance Procedure, Endurance Testing of Diesel Generators During Refueling (TSSP 152-88), performed on 12/18/88 at about 1650 hours. The test was part of a series of special tests not directly related to the damper in question. When Bus 248 was restored, it appears that the damper did not reclose as was expected. The damper was discovered out of its normal closed position by the Operating B-Man on his rounds. Per caution notes in the Zion Electrical Distribution index (ZED-1), aircraft crash dampers do not have to be jumpered to remain closed if the power interruption is to be momentary, as it was in this case. Since no jumpers were installed, individual Bus 248 component verification was not required and, hence, not performed.

D. SAFETY ANALYSIS OF EVENT

The safety significance of the event was minimal in that the time the damper was open but undiscovered was short, about 28 hours. Upon discovery, attempts were immediately made by Operating Shift Management personnel to close the damper. Furthermore, an hourly fire watch monitored the open damper from the time of discovery until the damper was closed, 2 days later on December 21, 1988. Based on these mitigating circumstances, the health and safety of the public was not compromised.

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E. CORRECTIVE ACTIONS

On December 21, 1988 MMs and EMs (Electrical Maintenance) replaced the damper control air valve, a solenoid valve and closed the damper. A sticking control air valve and a failed solenoid valve prohibited the damper from closing after it had opened. The SCRE who initially mistakenly initiated the fire watch instead of a DVR was counseled by the Station Fire Marshall to clarify why a DVR was appropriate in this case. Delays in writing DVRs is not a recurring station problem. Regulatory Assurance reviews shift operations on a daily basis to verify that DVRs are written when appropriate. No further corrective actions are necessary.

F. PREVIOUS EVENTS

There have been several previous incidents of aircraft crash damper failures for various reasons. A program is currently under way to replace all Miller valves and solenoids on dampers throughout the plant (Mod #M-22-0-88-06).

G. COMPONENT FAILURE DATA

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model</u>
ASCO	Solenoid Valve	A8320