

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Davis-Besse Unit 1

DOCKET NUMBER (2)
0 5 0 0 0 3 4 6

PAGE(S)
1 OF 0 3

TITLE (4)
Nuclear Safety Related Equipment Potentially Impacted by Non-Seismic Equipment

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	3	1	2	8	8	0	0	4	0	8	8	0 5 0 0 0
				0	0	0	4	0	8	8		0 5 0 0 0

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

OPERATING MODE (9) 5	20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 01010	20.406(a)(1)(i)	50.38(a)(1)	50.73(a)(2)(v)	73.71(a)
	20.406(a)(1)(ii)	50.38(a)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: M. J. Roder, Assistant Nuclear Engineer, Technical Planning

TELEPHONE NUMBER: 4 1 1 9 2 4 9 1 - 1 5 1 0 1 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On March 12, 1988 at 0930 hours, Nuclear Safety Related (NSR) equipment was discovered to be located within the falling arc distance of non-seismic electrical panel C4601. Subsequent investigation revealed three more non-seismic panels similar to C4601. A walkdown of these panels identified one other panel (C5751) with NSR equipment located within its falling arc distance. Original installation of C4601 and C5751 was correct. During the preparation of subsequent modifications the potential for panels C4601 and C5751 to fall and impact NSR equipment was overlooked.

NSR equipment near panel C5751 will be relocated and panel C4601 will be seismically restrained during the fifth refueling outage. A sample of non-seismic free standing electrical panels is to be conducted to identify any similar conditions and any additional corrective actions. Outside organizations involved in the hazards analysis review will also be trained.

This finding is being reported under 10CFR50.73(a)(2)(ii)(B) as a condition outside the design basis.

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FACILITY NAME (1) Davis-Besse Unit 1	DOCKET NUMBER (2) 6500034688	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		88	008	00	02	OF 03

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

Description of Occurrence:

On March 12, 1988, at 0930 hours the reactor was in Mode 5 at 0 percent Reactor Thermal Power. During a walkdown for Facility Change Request (FCR) 84-0083, Design Engineering Personnel identified a non-seismically mounted electrical panel (C4601, computer analog multiplexer) that, during a seismic event, could fall and impact nearby Nuclear Safety Related (NSR) equipment.

Subsequent investigation revealed three more non-seismically mounted electrical panels (C5751, C5752, and C5753) that were similar to C4601. A walkdown of the three panels was conducted. Two of the panels (C5752 and C5753) were determined to not affect any NSR equipment. The third panel (C5751, computer digital input/output multiplexer) was identified as having the potential to fall during a seismic event and impact NSR equipment.

Installed equipment and facility modifications currently being implemented were reviewed to determine the NSR equipment potentially affected. This review identified the following equipment:

Installed equipmentCable No. Function

1PD106A	Power for High Pressure Injection Pump 1-1 DC Lube Oil Pump
2PBF1231A	Power for High Pressure Injection Pump 1-2 AC Lube Oil Pump
2PBF1609A	Power for Containment Post Accident Normal Range Radiation Monitor
2CSF1723D	Station Vent Effluent High Range Radiation Monitor
2PY211AA	Power to Hot Leg Level Monitor
1CFV100EF	Main Steam Isolation Valve Line 2 Reset
1CFV100DG	Main Steam Isolation Valve Line 2 Reset
2CFV101EF	Main Steam Isolation Valve Line 1 Reset
2CFV101DG	Main Steam Isolation Valve Line 1 Reset

Non-Installed equipmentCable No. Function

2PBF1208F	Power for Makeup Pump Discharge Cross Connection Line Isolation Valve
2PBF1616F	Power for Bypass Valve in the MU 32 Miniflow Line
2PBF1617D	Power for Reactor Coolant Makeup Pump Suction Valve
2PBF1108E	Power for Containment Isolation Valve V6422
2CY208AA	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2CY208AB	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2LNF5875C	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2LNF5875D	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2LNF5875E	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2LNF5875F	Neutron Flux Audible Indication Circuitry for the Control Room and Containment
2LNF5875G	Neutron Flux Audible Indication Circuitry for the Control Room and Containment

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

USAR Section 3.2.1.1 and Regulatory Guide 1.29, February 1976, require equipment which could fail and adversely impact NSR equipment to be designed and constructed so that a seismic event does not cause such a failure.

This event is being reported under 10CFR50.73(a)(2)(ii)(B) as a condition outside the design basis of the plant.

Designation of Apparent Cause of Occurrence:

Original non-seismic installation of panels C4601 and C5751 was correct. Subsequent facility modifications installed NSR equipment in the vicinity of these panels. The potential for panels C4601 and C5751 to impact the NSR equipment was overlooked during hazards analysis review required by modification procedures.

Analysis of Occurrence:

Panels C4601 and C5751 could fall during a seismic event potentially impacting nearby Nuclear Safety Related equipment and rendering it inoperable. Had this occurred, the capability to reset both Main Steam Isolation Valves (MSIV) could have been lost. The MSIVs, however, would either move to or remain in their fail-safe closed position. For other circuits not associated with the MSIV resets, safe shutdown of the reactor would have been assured due to redundant equipment located in other areas remaining unaffected.

Corrective Action:

Panel C5751 is located in Room 502, control cabinet room. Nuclear Safety Related equipment within the falling arc distance of the panel will be relocated to cabinets C5762N and C5792N during the fifth refueling outage under MOD 87-1107.

Panel C4601 is located in Room 427, electrical penetration room. Panel C4601 will be seismically restrained during the fifth refueling outage under Facility Change Request 84-0083 supplement 03.

A sample of non-seismic free standing electrical panels will be performed by June 30, 1988 to determine if similar conditions exist and if any additional corrective actions are required. Hazards analysis review training has been conducted for Toledo Edison Personnel and a list of Qualified Design Reviewers is being maintained. Outside organizations involved in the hazards analysis review will be trained and added to the Qualified Design Reviewers list by May 31, 1988. Controls are in place so that only those identified on the Qualified Design Reviewers list will perform these reviews.

Failure Data:

LER 86-015 previously identified non-seismic domestic water piping installed over Nuclear Safety Related equipment.

REPORT NO: NP-33-88-08

PCAQ NO(s): 88-0177

April 8, 1988



Log No: KA88-0268
NP-33-88-08

Docket No. 50-346
License No. NPF-3

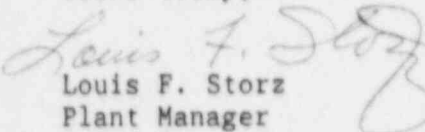
U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Gentlemen:

LER No. 88-008
Davis-Besse Nuclear Power Station Unit No. 1
Date of Occurrence March 12, 1988

Enclosed is Licensee Event Report 88-008, which is being submitted in accordance with 10CFR50.73 to provide 30 day written notification of the subject occurrence.

Yours truly,


Louis F. Storz
Plant Manager
Davis-Besse Nuclear Power Station

LFS/ed

cc: Mr. A. Bert Davis
Regional Administrator
USNRC Region III

Mr. Paul Byron
DB-1 NRC Resident Inspector

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