

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Davis-Besse Unit 1</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 4 6</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4)  
**Essential Instrument A C Power Seismic Unqualified Cabinets**

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 2	2 8	8 6	8 6	0 1 1	0 0 0	0 3	2 7	8 6			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) <b>5</b>	POWER LEVEL (10) <b>0 1 0 1 0</b>	20.402(b) 20.406(a)(1)(i) 20.406(a)(1)(ii) 20.406(a)(1)(iii) 20.406(a)(1)(iv) 20.406(a)(1)(v)	20.406(a) 50.38(a)(1) 50.38(c)(2) 50.73(a)(2)(i) 50.73(a)(2)(ii) 50.73(a)(2)(iii)	50.73(a)(2)(iv) 50.73(a)(2)(v) 50.73(a)(2)(vii) 50.73(a)(2)(viii)(A) 50.73(a)(2)(viii)(B) 50.73(a)(2)(ix)	73.71(b) 73.71(e) OTHER (Specify in Abstract below and in Text, NRC Form 366A)
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LICENSEE CONTACT FOR THIS LER (12)

NAME <b>B. Chopra/F. Tran</b>	TELEPHONE NUMBER
	AREA CODE: <b>4 1 1 9</b> NUMBER: <b>2 1 4 9 - 1 5 1 0 1 0</b>

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	E F	I N V T	C 7 8 2		D	E J	B I Y I C I	C 7 8 2	
D	E F	R E C I T	C 7 8 2		D	E F	P L I I	C 7 8 2	

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

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

The cabinet doors on Cyberex class - 1E equipment (Battery Chargers, Inverters, Rectifiers and Distribution Panels) for essential instrument 120 VAC power are required to be bolted closed to maintain seismic qualification. These doors had not been bolted closed and the equipment has been operating up until now in this condition.

This operating condition has not resulted in any failure. Plant maintenance procedures are being revised and station personnel are being instructed to keep these cabinets bolted in order to maintain their seismic qualification. Work requests have been initiated to bolt these cabinet doors closed.

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

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 6	- 0   1   1	- 0   0	0 2	OF	0 3

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

Description of Occurrence:

Since original plant start up, the cabinet doors on Cyberex class - 1 E equipment (Battery Chargers DBC1P, DBC2P, DBC1N, DBC2N; Inverters YV1, YV2, YV3, YV4; Rectifiers YRF1, YRF2, YRF3, YRF4; Distribution Panels Y1, Y2, Y3, Y4, D1P, D1N D2P and D2N) for Essential Instrument AC power channels 1-4 were not bolted closed as required for seismic qualification. As a result of this condition, this equipment could have become inoperable during a seismic event.

This is reportable per 10 CFR50.73(2)(ii)(B) as a condition outside the design basis of the plant.

Designation of Apparent Cause of Occurrence:

The cause was that the bolting detail was missed during the development of the station procedures. Since the doors on these cabinets are hinged and latched, it was not obvious that the bolts were more than just original shipping bolts. It was not until recently when Cyberex was questioned that it was confirmed that the bolts had been installed during seismic qualification testing.

Analysis of Occurrence:

If a significant seismic event had occurred, these panels could have failed and resulted in a loss of 120 VAC instrument power. Each of the 120 VAC Distribution Panels Y1, Y2, Y3, and Y4 supplies one channel of the Safety Features Actuation System, SFAS, (JE), one channel of the Steam and Feedwater Rupture Control System, SFRCS, (JB), one channel of the Reactor Protection System, RPS, (JD), and one channel of the Anticipatory Reactor Trip System, ARTS. A loss of power trips these channels in a fail safe condition. Loss of an additional Distribution Panel would cause an actuation of these safety systems which would include a reactor trip. The control and stabilization of the plant following a trip would become more complicated as more panels are lost.

Although possible, it is very unlikely that the doors on these panels would fail in such a way that would cause a loss of cabinet power. The failure and loss of all four essential distribution panels would be incredulous.

Corrective Action:

The cabinet doors on the inverters, battery chargers, and rectifiers will have the bolts installed. Plant maintenance procedures MP 1410.70 and MP 1410.71 will be revised to address bolting of the cabinet doors to maintain seismic qualifications. Because of the potential need for easy access to the 120 VAC Distribution Panels Y1, Y2, Y3 and Y4, TED Systems Engineering is investigating other means of meeting the seismic qualifications without having to bolt the doors. If no other practical means is found, these doors will be maintained bolted. These changes will be completed prior to startup.

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

Engineering has also performed a random check of other cabinet doors and has found the necessary closure devices installed.

Failure Data:

This is the first report of cabinet door seismic concerns.

REPORT NO: NP-33-86-10

DVR NO(s): 86-043

March 27, 1986



Log No. KA86-104  
File: RR2 (NP-33-86-10)

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

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

Gentlemen:

LER No. 86-011  
Davis-Besse Nuclear Power Station Unit 1  
Date of Occurrence: February 28, 1986

Enclosed is Licensee Event Report 86-011 which is being submitted in accordance with 10CFR50.73, to provide 30 day written notification of the subject occurrence.

Yours truly,

A handwritten signature in cursive script that reads 'Louis F. Storz'.

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

LFS/ed

Enclosure

cc: Mr. James G. Keppler  
Regional Administrator,  
USNRC Region III

Mr. Paul Bryon  
DB-1 NRC Resident Inspector

Handwritten initials 'JEZ' with a vertical line through them, located in the bottom right corner of the page.