NRC Form 366
(9-83)

SPECIAL REPORT

LICENSEE EVENT REPORT (LER)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

FACILITY NAME (1): Davis-Besse Unit 1

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

PAGE (3): 1 OF 0 2

TITLE (4): High noise level in the Diesel Fire Pump right angle drive

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 5	1 7	8 4	8 4	— 0 0 7	— 0 0	0 6	2 8	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 3

POWER LEVEL (10): 0 0 0

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	XX 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: Carl R. Anderson, Maintenance Specialist

TELEPHONE NUMBER: AREA CODE 4 1 9 — 2 5 9 - 5 0 0 0

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	
X	K F	R G R	J 0 8 0	N							

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	XX NO				

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

On May 17, 1984, while performing Diesel Fire Pump Surveillance Test ST 5016.01, operators heard excessive noise coming from the right angle drive gear assembly. Vibration readings indicated excessive vibration in the right angle gear assembly which houses the two drive shaft bearings. The Diesel Fire Pump was removed from service as a precautionary measure even though it was maintaining rated flow. After the right angle gear assembly was removed, an inspection revealed that the bearing rollers in the spherical roller bearing appeared to be sticking. As a precautionary measure, both drive shaft bearings were replaced and gear back lash set. Surveillance Test ST 5016.01 was run again and additional vibration readings taken. The Diesel Fire Pump was declared operable on May 31, 1984. This Special Report is being submitted pursuant to Technical Specification 6.9.2.

IE22
1/1

NRC Form 366
(9-83)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Davis-Besse Unit 1	0 5 0 0 0 3 4 6	8 4	— 0 0 7	— 0 0	0 2 OF 0 2

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

Description of Occurrence: On May 17, 1984 at 0545 hours with the plant in Mode 3, operators heard excessive noise coming from the right angle drive gear while performing Surveillance Test ST 5016.01. Vibration readings indicated excessive vibration in the right angle gear. The pump was declared inoperable, and the right angle drive gear assembly was disassembled. The Diesel Fire Pump, DFP, (KF), was declared inoperable to allow Maintenance to disassemble the gear assembly. The Station entered Action Statement (a) of Technical Specification 3.7.9.1.

This Special Report is being submitted pursuant to Technical Specification 6.9.2 when the DFP was not restored to operable status within seven days.

Designation of Apparent Cause of Occurrence: No actual component failures occurred. There was no bearing wear or damage apparent in either drive shaft. However, some of the rollers in the spherical roller bearing appeared to be sticking causing the excessive vibration.

Analysis of Occurrence: The DFP being inoperable was not detrimental to the health and safety of the public. The electric drive fire pump which takes a suction on the Fire Water Storage Tank was operable and aligned to the fire suppression system. If the electric drive fire pump or Fire Water Storage Tank became inoperable, a pumper from the Carroll Township Fire Department would have acted as the backup fire suppression system. The severity of this event is not affected by the power level of the station.

Corrective Action: On May 18, 1984, Maintenance Work Order (MWO) 1-84-1618-00 was issued for disassembly and inspection of the right angle gear drive. The right angle gear drive sub-assembly was removed and both bearings visually inspected. Some of the roller bearings in the spherical roller bearing appeared to be sticking. No wear or damage was apparent to the rollers in either drive shaft bearing. As a precautionary measure, both drive shaft bearings were replaced under MWO 1-84-1618-02. Also, the lubrication system was inspected and its proper operation verified. The right angle drive gear was reassembled and gear back lash set. Surveillance Test ST 5016.01 and vibration readings were performed, and the DFP declared operable at 1420 hours on May 31, 1984.

Since Surveillance Test ST 5016.01 is performed weekly, any loud or unusual noises will be detected by the operators. Vibration readings would then be taken to pinpoint the source of the noise.

Failure Data: There have been no previously reported similar events.

Report No: NP-33-84-07 DVR No(s): 84-065

TOLEDO EDISON

June 22, 1984

Log No. K84-732
File: RR 2 (NP-33-84-07)

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

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

Gentlemen:

Special Report 84-007
Davis-Besse Nuclear Power Station Unit 1
Date of Occurrence: May 17, 1984

Enclosed is Special Report 84-007, which is being submitted pursuant to Technical Specification 6.9.2, to provide 30 day written notification of the subject occurrence.

Yours truly,

Terry D Murray

Terry D. Murray
Station Superintendent
Davis-Besse Nuclear Power Station

TDM/ljk

Enclosure

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

Mr. Walt Rogers
DB-1 NRC Resident Inspector

JCS/001

IE22
1/1