NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

Update Report: Previous
Report Date - 5-5-81

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

Field	Value
0 1 Licensee Code (2)	I A D A C 1
License Number (3)	0 0 - 0 0 0 0 0 - 0 0
License Type (4)	4 1 1 1 1
CAT (5)	
CON'T 0 1 Report Source (6)	L
Docket Number (7)	0 5 0 0 0 3 3 1
Event Date (8)	0 4 2 1 8 1
Report Date (9)	0 5 1 6 8 3

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During the annual inspection of standby diesel gen. 1G-21, the lower
0 3 crankshaft #14 bearing was found wiped on the journal surface. Redundant
0 4 standby diesel 1G-31 annual inspection revealed similar problems (See RO
0 5 81-016). Diesel generator operability requirements are listed in Tech.
0 6 Spec. 3.8.A.2. Also see RO Reports 77-32, 78-020, 80-011, and 80-012.
0 7 The standby diesel gen. is a Fairbanks Morse Model 3800TD 8-1/8.
0 8

0 9	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
	E E	X	Z	E N G I N E	Z	Z

(17) LER/RO Report Number	Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
	8 1	—	0 1 5	/	0 1	T	—	1

Action Taken (18)	Future Action (19)	Effect on Plant (20)	Shutdown Method (21)	Hours (22)	Attachment Submitted (23)	NPRD-4 Form Sub. (24)	Prime Comp. Supplier (25)	Component Manufacturer (26)
A	X	Z	Z	0 0 0 0	Y	N	A	C 4 7 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Vendor representative indicated the bearing had not failed and that bear
1 1 ing tolerances were within spec. The bearing was replaced, crankshaft wa
1 2 s relapped, and the diesel was tested satisfactorily. Minimum prelube ti
1 3 me determined and additional inspections incorporated in plant procedure
1 4 s and operating instructions.

1 5	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
	H	0 0 0	NA	B	Annual Surveillance Test

1 6	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
	Z	Z	NA	NA

PERSONNEL EXPOSURES

1 7	Number (37)	Type (38)	Description (39)
	0 0 0	Z	NA

PERSONNEL INJURIES

1 8	Number (40)	Description (41)
	0 0 0	NA

8305270451 830516
PDR ADOCK 05000331
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	Type (42)	Description
	Z	NA

PUBLICITY

2 0	Issued (44)	Description (45)
	N	NA

NRC USE ONLY

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DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Update Report Date: May 16, 1983

Reportable Occurrence No: 81-015

Event Description

During the annual inspection of standby diesel generator 1G-21, the lower crankshaft main bearing #14 was found wiped on the journal surface. Redundant standby diesel generator 1G-31 annual inspection revealed similar problems (See RO Report 81-016). Although both diesel generators were operable at the time of the surveillance testing, extended operation, without corrective action, could have resulted in the bearing failure. Standby diesel generator operability requirements are listed in Technical Specification 3.8.A.2. There have been several similar RO Reports previously submitted (See RO Reports 77-32, 78-20, 80-11, and 80-12). This unit is a Fairbanks Morse Model 38OOTD 8-1/8.

Cause Description

Vendor representative indicated that the diesel generator bearing had not failed and the bearing clearances were within specs. The wiped journal surface of the bearing was caused by high temperature rather than by a mechanical failure mechanism according to the vendor representative. It is suspected this is an indication that an insufficient lubrication problem exists. The vendor analysis continues and the results will be provided when available.

Corrective Action

The lower crankshaft main #14 bearing was replaced and the bearing-to-crankshaft clearance was verified to be in accordance with specifications. The crankshaft was relapped and the diesel generator was reassembled and tested satisfactorily.

Anticipating that the bearing may have been wiped due to insufficient lubrication, a test will be performed to determine the time from prelubricating pump start for the oil to reach the main crankshaft bearings and the standby diesel generator surveillance test procedures will be changed accordingly. The results this test will be provided along with the results of the vendor analysis.

Also the condition of the lower crankshaft #12, #13, and #14 bearings will be inspected four months after startup from the current refueling outage and after each standby diesel generator automatic start.

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Update Report Date: May 16, 1983

Reportable Occurrence No: 81-015 (Cont.)

Corrective Actions Taken

In response to the event described above, the following corrective actions have been taken:

1. Visual testing of prelubrication time confirmed that the 4.5 minute prelubrication period is conservative. The 4.5 minute prelubrication period has been incorporated in the Diesel Generator Surveillance Test Procedures.

2. Surveillance Test Procedures have been amended to include a caution for the prelubrication of the bearing in order to emphasize the importance of prelubrication.

3. Diesel Generator annual inspection Surveillance Test Procedure has been amended to retest and re-verify the prelubrication period.

4. Conducted additional visual inspection of Diesel Generator bearings in September 1981 and found to be within requirements.

5. Diesel Generator operating instructions have been amended to require visual inspection of the bearings after each automatic start of the diesel generator.

6. Additional visual inspections of Diesel Generator bearings were conducted per plant inspection procedures in March 1983, during the Cycle 7 refueling outage, and bearings found to be within requirements.