REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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FACIL:50-287 Oconee Nuclear Station 3, Duke Power Co. 05000287
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LEWIS,S.R. Duke Power Co.
RECIP.NAME RECIPIENT AFFILIATION
Region 2, Atlanta, Office of the Director

SUBJECT: LER 78-023/03L-0 on 781220:Reactor Bldg Spray pump 3B inoperable due to high vibration.Caused by impeller having worked loose from impeller shaft.

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TITLE: INCIDENT REPORTS

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION

Report Number: RO-287/78-23

Report Date: January 24, 1979

Occurrence Date: December 20, 1978

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: 3B Reactor Building Spray Pump Inoperable

Conditions Prior to Occurrence: 97% Full Power

Description of Occurrence:

On December 20, 1978, Reactor Building Spray Pump 3B was removed from the Engineered Safeguards (ES) lineup for performance test PT/3/A/0204/07. During initial testing, high vibration of the pump was detected. The pump was retested using better instrumentation which would have filtered out any vibration due to a background source. Nearly identical readings were obtained using the filtered instrument, so the pump was declared inoperable. The pump was replaced according to maintenance procedure MP/O/A/1300/01. The replacement pump was then tested according to PT/3/A/0204/07, declared operable, and returned to the ES lineup.

Apparent Cause of Occurrence:

The high vibration was due to the impeller having worked loose from the impeller shaft. No torque is specified for tightening the impeller locking device.

Analysis of Occurrence:

In the unlikely event that a loss-of-coolant accident would occur during the 24 hour maintenance period, two cooling units and one spray unit would be required to maintain Reactor Building pressure at no greater than 59 psig. During the maintenance period all three cooling units and spray pump 3A, which had been performance tested and declared operable immediately prior to testing pump 3B, were available. Therefore, public health and safety were not endangered.

Corrective Action:

Presently, no torque is specified for tightening the impeller locking device. The maintenance procedure, MP/O/A/1300/01, used to replace the pump, will be revised to provide an acceptable procedure for impeller locking.

NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

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

0 1 | S C N E E 3 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | | (5)
LICENSEE CODE 9–14; LICENSE NUMBER 15–25; LICENSE TYPE 26–30; CAT 57–58

CON'T
0 1 REPORT SOURCE | L (6) | 0 5 0 0 0 2 8 7 (7) | 1 2 2 0 7 8 (8) | 0 1 2 4 7 9 (9)
DOCKET NUMBER 61–68; EVENT DATE 69–74; REPORT DATE 75–80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 1424, during performance test PT/3/A/0204/01 Reactor Building Spray pump
0 3 3B was determined to be inoperable due to high vibration. All three cooling
0 4 units and one spray unit were available to maintain Reactor Building pressure
0 5 below 59 psig in the unlikelv event of a loss-of-coolant accident. Therefore
0 6 the health and safety of the public were not endangered.
0 7
0 8

0 9

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
S B (11)	D (12)	Z (13)	P U M P X X (14)	B (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
7 8	—	0 2 3	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
C (18)	G (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	L (25)	I 0 7 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The pump was retested to verify the high vibration, then replaced according
1 1 to procedure MP/0/A/1300/01 with a pump which was tested and declared oper-
1 2 able. Vibration was due to the impeller having worked loose from the impeller
1 3 shaft. The maintenance procedure will be revised to provide an acceptable
1 4 procedure for impeller locking.

1 5 FACILITY STATUS E (28) % POWER 0 9 7 (29) OTHER STATUS (30) NA METHOD OF DISCOVERY [ ] (31) DISCOVERY DESCRIPTION (32) Performance Test Observation

1 6 ACTIVITY RELEASED Z (33) CONTENT OF RELEASE Z (34) AMOUNT OF ACTIVITY (35) NA LOCATION OF RELEASE (36) NA

PERSONNEL EXPOSURES
1 7 NUMBER 0 0 0 (37) TYPE Z (38) DESCRIPTION (39) NA

PERSONNEL INJURIES
1 8 NUMBER 0 0 0 (40) DESCRIPTION (41) NA

LOSS OF OR DAMAGE TO FACILITY (43)
1 9 TYPE Z (42) DESCRIPTION NA

PUBLICITY
2 0 ISSUED N (44) DESCRIPTION (45) NA

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