LICENSEE EVENT REPORT

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

Field	Value
0 1 LICENSEE CODE (2)	I L L S C 1
LICENSE NUMBER (3)	0 0 - 0 0 0 0 0 - 0 0
LICENSE TYPE (4)	4 1 0 0 0
CAT (5)	
CON'T 0 1 REPORT SOURCE (6)	L
DOCKET NUMBER (7)	0 5 0 0 0 3 7 3
EVENT DATE (8)	1 2 2 8 8 2
REPORT DATE (9)	0 1 2 6 8 3

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On 12/28/82 at 2030 hours, while the RHR B System was in the Supp. Pool
0 3 Cooling Mode, excessive vibration was noted on the RHR 1B pump shaft. The
0 4 pump was immediately shutdown and declared inoperative. The reactor was
0 5 in the RUN mode producing 1428MWT, 330MWE. Pursuant to Tech. Spec.
0 6 3.6.2.3 reactor shutdown commenced within 72 hours of the discovery for
0 7 major repairs to RHR B Pump. The HPCS, LPCS, RHR A and RHR C systems were
0 8 operable in the standby mode for vessel injection.

0 9	SYSTEM CODE (11)	CAUSE CODE (12)	CAUSE SUBCODE (13)	COMPONENT CODE (14)	COMP. SUBCODE (15)	VALVE SUBCODE (16)
	C F	E	B	P U M P X X	B	Z

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	1 7 6	/	0 3	L	—	0

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)
B	X	Z	Z	0 0 0 0	Y	N	A	I 0 7 5

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Upon disassembly, the bearings had signs of excessive wear per Ingersoll
1 1 Rand, the pump manufacturer, recommended tolerances. Measurements on the
1 2 upper pump column indicated misalignment. The bearings were replaced and
1 3 the upper column was machined to allowable tolerances. Instrumentation is
1 4 to be installed on the pump casing to determine the cause of the previous failure.

1 5	FACILITY STATUS (28)	% POWER (29)	OTHER STATUS (30)	METHOD OF DISCOVERY (31)	DISCOVERY DESCRIPTION (32)
	B	0 3 0	NA	C	Operator Observation

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

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

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

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

8302040266 830126
PDR ADOCK 05000373
S PDR

2 0 PUBLICITY	ISSUED (44)	DESCRIPTION (45)	NRC USE ONLY
	N	NA	

NAME OF PREPARER: R. W. Houston PHONE: 815/357-6761 Ext 323

I. LER NUMBER: 82-176/03L-0

II. LASALLE COUNTY STATION: UNIT 1

III. DOCKET NUMBER: 050-373

IV. EVENT DESCRIPTION:

On December 28, 1982 at 2030 hours, while the RHR B System was in the Suppression Pool Cooling Mode, excessive vibration was noted on the RHR 1B pump shaft. The pump was immediately shut down and declared inoperative.

V. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

At the time of the occurrence the reactor was in the RUN mode producing 1428 MWT, 330 MWE. Pursuant to Technical Specification 3.6.2.3 reactor shutdown commenced within 72 hours of the discovery for major repairs to the RHR B Pump. The HPCS, LPCS, RHR A, and RHR C Systems were operable and in the standby mode for vessel injection. Safe plant operation was maintained at all times.

VI. CAUSE:

Upon pump disassembly, the bearings had signs of excessive wear as per Ingersoll Rand, the pump manufacturer, recommended tolerances. The stuffing box bronze bushing and journal sleeve had one-sided wear. The journal sleeve for the uppermost Graphalloy bearing also showed signs of one-sided wear. All of the Graphalloy bearings were removed for replacement. Four of the journal sleeves were also replaced.

The impeller wear rings showed no sign of contact. All set screws and discharge column flanges were properly torqued. The motor shaft and bearings showed no sign of damage.

Measurements of the upper pump column found significant misalignment which required machining to bring it within allowable tolerances. The pump-motor coupling was also found to have a slight misalignment.

This mechanical misalignment is the only evidence found as of this time which could have caused the pump failure. A more concrete determination of the failure is expected to be found following pump reinstallation and testing.

VII. CORRECTIVE ACTION

Work Request L21352 was written to repair the RHR 1B Pump. The pump was pulled from its sump and disassembled for measurements. All bearings and journal sleeves which had out-of-tolerance wear

were removed for replacement

Work Request L21633 was written to provide for the machining of the upper pump column. This work was completed on 1/14/83.

Modification M-1-1-83-04 was written to provide for the installation of vibration instrumentation at points along the pump casing as delineated in G.E. FDDR #HA1-477. The analysis of data obtained with this instrumentation should point to the cause of the previous pump failure if the problem was not corrected by machining the upper pump column and pump-motor coupling. A supplemental report will describe the results of the vibration analysis. AIR-1-83-27 will track the completion of this report.

LOS-RH-Q1 will be performed along with LST 83-08 to prove pump operability following reassembly.

PREPARED BY: R. W. Houston