LICENSEE EVENT REPORT

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

01 | M I D C C 2 (2) | 0 0 0 0 0 0 0 0 0 0 0 (3) | 4 1 1 1 1 (4) | (5)
LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

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01 REPORT SOURCE L (6) 0 5 0 0 0 3 1 6 (7) 0 1 0 7 8 3 (8) 0 1 2 1 8 3 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 DURING A UNIT TWO REFUELING OUTAGE WHICH COMMENCED ON NOVEMBER 21,
03 1982, HELIUM AND EDDY CURRENT TESTING IDENTIFIED THREE TUBES IN STEAM
04 GENERATOR NO. 2 AND THREE TUBES IN STEAM GENERATOR NO. 3 WHICH EXHIBITED
05 INDICATIONS OF DEGRADATION AND/OR THROUGH WALL DEFECTS THAT EXCEEDED
06 THE ALLOWABLE CRITERIA AS DEFINED BY THE PLANT TECHNICAL SPECIFICATIONS.
07
08

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
W E (11)	E (12)	C (13)	H T E X C H (14)	F (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 0 5	/	9 9	L	—	0

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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 THE SIX TUBES WERE PLUGGED DUE TO THE HELIUM AND EDDY CURRENT TEST
11 INDICATIONS. REFER TO THE ATTACHED SUPPLEMENT FOR ADDITIONAL DETAILS.
12
13
14

FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
15 H (28)	0 0 0 (29)	N/A	B (31)	TESTING

ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
16 Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION (39)
17 0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

NUMBER	DESCRIPTION (41)
18 0 0 0 (40)	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

TYPE	DESCRIPTION
19 Z (42)	N/A

8301280213 830121
PDR ADOCK 05000316
S PDR

PUBLICITY

ISSUED	DESCRIPTION (45)
20 N (44)	N/A

NRC USE ONLY

NAME OF PREPARER T.P. Beilman PHONE 616-465-5901

SUPPLEMENT TO LER NO. 83-005/99L-0

The purpose of this supplement is to inform you of actions taken by Indiana and Michigan Electric Company in the Steam Generators during this refueling outage which commenced November 21, 1982, for the Unit No. 2 reactor.

Eddy Current Testing in the Steam Generators was not required during this outage by ASME Code Section XI, 1974 Edition Summer, 1975 Addenda, Regulatory Guide 1.83 or the Unit No. 2 Technical Specifications; as we are presently in the forty-month inspection interval. However, Plant Management and American Electric Power Service Corporation Management developed a testing and tube plugging program to be performed in Steam Generator Nos. 2 and 3. The following summarizes the techniques, findings and remedial measures taken:

1. Prior to the outage, Steam Generator No. 2 had exhibited a leak rate of .264 gallons per minute maximum which is below the Technical Specification limit of .347 gallons per minute and, as such, did not meet the criteria which would warrant the performance of an inservice inspection.

   A preplanned program to locate the leak included first using a Helium Sniffing technique followed by a Multi-frequency Eddy Current Testing technique programmed to probe all Row 1 and 2 tubes. The Helium Sniffing technique located one leaking tube uniquely designated Row 1 Column 14. Eddy Current Testing did not confirm the leakage found during Helium Testing but identified instead indications in 2 other tubes designated Row 1 Column 26 (80% wall penetration), and Row 1 Column 47 (100% through-wall defect).

   Both indications were found at the tangent point on the hot leg side. Since the Eddy Current Testing did not confirm the leaks found by Helium Testing, Plant Management elected to perform the Helium Test a second time. The second Helium Test confirmed the results of the first Helium Test.

   Based on Helium Testing and Eddy Current Testing results, tubes designated Row 1 Column 14, Row 1 Column 26, and Row 1 Column 47, were plugged in addition to the planned plugging of the tubes adjacent to the tube lane blocking devices uniquely designated as Row 1 Column 1, Row 1 Column 2, Row 1 Column 3, Row 1 Column 4, Row 1 Column 5, Row 1 Column 90, Row 1 Column 91, Row 1 Column 92, Row 1 Column 93, and Row 1 Column 94. The plugging was accomplished by Westinghouse personnel using mechanical plugs.

2. The preplanned examination program for Steam Generator No. 3 included first performing an examination using the Helium Technique followed by an Eddy Current Examination of 935 predetermined tubes using a Multifrequency Technique. No leakage was found using the Helium technique. However, the Eddy Current Examination identified 2 tubes with reportable indications in the first selection of tubes. One tube uniquely identified Row 44 Column 58 showed 2 indications which measured 41.5% at the No. 3 AVB and 43% at the No. 4 AVB. The other tube identified as Row 37 Column 67 showed one indication which measured 38% at the No. 3 AVB.

The results of the examination of the first selection of tubes was evaluated and it was determined that the examination program should be expanded in accordance with the Donald C. Cook Nuclear Plant Unit No. 2 Technical Specifications. The second selection totaled 362 tubes. One tube uniquely identified Row 40 Column 36 showed an indication which measured 50% at the No. 3 AVB.

The results of the examination of the second selection were reviewed and, in accordance with Technical Specifications, a decision was made to the expand the program a second time. The third selection totaled 1631 tubes. Reportable indicatons were found in 3 tubes from this selection. Tube uniquely identified as Row 24 Column 61 showed an indication which measured 23% at the No. 3 AVB. Tube designated as Row 24 Column 65 showed 2 indications which measured 23% at the No. 2 AVB and 24% at the No. 1 AVB. Tube designated Row 18 Column 64 showed an indication which measured 22% at the No. 2 AVB.

Three tubes designated Row 44 Column 58; Row 37 Column 67 and Row 40 Column 36 were plugged as a result of Eddy Current Examination.

As a result of a decision to plug Row 1 tubes installed adjacent to the tube lane blocking devices, tubes designated Row 1 Column 90, Row 1 Column 91, Row 1 Column 92, Row 1 Column 93, Row 1 Column 94, Row 1 Column 1, Row 1 Column 2, Row 1 Column 3, Row 1 Column 4, and Row 1 Column 5, were plugged.

In addition, 2 tubes designated Row 1 Column 6 and Row 1 Column 7 were plugged as a result of a Westinghouse error.

A total of fifteen (15) tubes were plugged in Steam Generator No. 3 during this refueling outage.