NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

UPDATED REPORT - PREVIOUS REPORT DATED MARCH 25, 1980

LICENSEE EVENT REPORT

8004290306

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

Line	Field	Value
01	Licensee Code (2)	W I P B H 1
01	License Number (3)	0 0 - 0 0 0 0 0 - 0 0
01	License Type (4)	4 1 1 1 1
01	CAT (5)	
CON'T 01	Report Source (6)	L
01	Docket Number (7)	0 5 0 0 0 2 6 6
01	Event Date (8)	0 3 1 1 8 0
01	Report Date (9)	0 4 1 7 8 0

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 With the unit in cold shutdown for a required 60 effective full power day
03 steam generator testing program, an 800 psi secondary-to-primary hydro-
04 static leak test of the steam generators was performed on 3-11-80. No
05 leaks were identified in the "A" steam generator. Inspection of the "B"
06 steam generator revealed one tube (R23C44) leaking approximately 3 drops/
07 min., one tube (R8C37) that appeared wet and one wet plug end (R23C50).
08 This event is reportable per T. S. 15.6.9.2.A.3 and similar to others.

Line	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
09	C B	E	D	H T E X C H	F	X

(17) LER/RO Report Number

Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
8 0	—	0 0 2	/	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)
B	Z	C	A	0 0 0 0	Y	Y	N	W 1 2 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 A previously scheduled eddy current inspection program was performed. 24
11 tubes in the "A" SG and 36 tubes in the "B" SG were explosively plugged
12 except for the hot side of three tubes in the "B" SG which were pulled
13 for examination. The 3 tube holes, along with 4 leaking explosive plugs
14 were weld plugged and hydrostatic test was performed afterwards.

Line	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
15	G	0 0 0	N/A	C	Observed by inspector

Line	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
16	Z	Z	N/A	N/A

PERSONNEL EXPOSURES

Line	Number (37)	Type (38)	Description (39)
17	0 0 0	Z	N/A

PERSONNEL INJURIES

Line	Number (40)	Description (41)
18	0 0 0	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

Line	Type (42)	Description
19	Z	N/A

PUBLICITY

Line	Issued (44)	Description (45)	NRC Use Only
20	N	N/A	

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GPO 917-226

ATTACHMENT TO LICENSEE EVENT REPORT 80-002/01T-1

Wisconsin Electric Power Company
Point Beach Nuclear Plant Unit 1
Docket No. 50-266

Unit 1 was placed in cold shutdown at 0215 hours on March 6, 1980, for the 60 effective full power day steam generator testing program required by the Confirmatory Order of November 30, 1979. When taken off line the unit had primary-to-secondary leakage of approximately 30 gallons per day, which is well below the Technical Specification and Confirmatory Order limits. The leak rate had been stable at this value since the unit returned to service on December 23, 1979, following steam generator repair work.

Prior to performing the 800 psi secondary-to-primary leak test, a 2000 psi primary-to-secondary differential pressure leak test was conducted.

At 0400 hours on March 11, 1980, the 800 psi secondary-to-primary hydrostatic leak test of the Unit 1 "B" steam generator was completed. The "A" steam generator leak test was completed at 2020 hours the same day. No leaks were identified in the "A" steam generator. In the "B" steam generator, one tube (R23C44) was observed to be leaking approximately three drops per minute. Another tube (R8C37) appeared to be wet, but no water was dripping from the tube; a defect was later identified in this tube. The end of an existing explosive plug (R23C50) was wet, but no water was dripping from the plug.

After performing the leak test, an eddy current inspection was performed in compliance with the Confirmatory Order of November 30, 1979. The eddy current program performed was mutually agreed upon with the NRC and was similar to the inspection program conducted in December 1979. The program consisted of approximately 1,000 tubes in each steam generator concentrated mainly in the region where deep crevice tube defects have been found in the past. However, over 100 of the tubes inspected in each generator were randomly located throughout the generator including the wedge area and the full length of these tubes was inspected. All the other tubes were inspected through the first support only.

Of the tubes inspected in the "A" steam generator, 24 were identified as having indications in the hot leg deep crevice region. Included in the 24 tubes are six tubes with undefinable indications which were plugged as a conservative measure. No eddy current indications were found at or above the top of the tubesheet. No degraded tube indications were found in the cold leg side of those tubes which were inspected for the full length.

All tubes in the "A" steam generator with indications were explosively plugged on March 17, 1980.

Of the tubes inspected in the "B" steam generator, 26 were identified as having indications in the hot leg deep crevice region; one tube had a defect one-half inch above the tubesheet, and no defect was identified in the leaking tube. Included in the 26 tubes are three tubes with undefinable indications which were plugged as a conservative measure. No degraded tube indications were found in the cold leg side of those tubes which were inspected for the full length.

All tubes with indications, including the leaking tube, were explosively plugged on March 17, 1980 (see Table 2 for details) except for the hot leg side of three tubes which were pulled for laboratory examination. The three tubes pulled are:

R19C37 with a 58% defect located one-half inch above the tubesheet.

R30C41 with a 47% deep crevice defect.

R26C53 with a 86% deep crevice defect that is similar to other undefinable indications.

All defects detected in both steam generators were extremely small volume. The experience accumulated during recent outages with multi-frequency eddy current equipment and familiarity with Point Beach tubesheet signals had made definition of these small defects possible.

Four tubes located near tube R30C41 were explosively plugged as a precautionary measure because R30C41 had not been completely cut prior to pulling it down about five inches. Plugging of these four tubes removed from service all adjacent tubes which may have been damaged.

Two explosive plugs were repaired on March 25, 1980. These two plugs included the one identified as having a wet end during the March 11, 1980, hydrostatic leak test (R23C50), and one (R29C41) which started to leak after removal of an adjacent tube.

Manual weld plugging of the removed tube holes was completed on March 28, 1980. An 800 psi secondary-to-primary hydrostatic leak test of the Unit 1 "B" steam generator was completed at 0400 hours the following morning. Two leaking tubes (R25C48 and R23C55), one leaking explosive plug in the hot leg (R25C53), and one leaking explosive plug in the cold leg (R22C48) were identified. The leaking tubes were explosively plugged and the plugs weld repaired on March 30 and 31, 1980. All of these tubes and plugs, except for the one in the cold leg, are adjacent to where a tube was pulled, an explosive plug installed or a weld repair made during this outage.

A second 800 psi secondary-to-primary hydrostatic leak test was performed on March 31, 1980. This leak test identified a leaking tube (R26C52) and a leaking manual weld, both adjacent to a weld repair made after the March 28, 1980 leak test. The manual weld is one of the three made this outage to plug a removed tube hole, and the leak appeared to be from an area where some weld metal was possibly removed while preparing the adjacent tube for weld repair. The tube was explosively plugged on March 31, 1980, and the manual weld repair was completed on April 3, 1980.

A final 800 psi secondary-to-primary hydrostatic leak test of the Unit 1 "B" steam generator was performed at 1700 hours April 3, 1980. One tube (R29C53) was observed to be dripping at a very slow rate and two explosive plugs (R23C53 and R20C46) and one manual weld plug (R19C37) were observed to be wet, but no water was dripping. The leaking tube was mechanically plugged on April 3. The wet plugs were not repaired since a wet end does not pose a significant primary-to-secondary leakage potential.

Tables 1, 2, and 3 give a summary of the tube plugging, eddy current results, and extent of examination in Unit 1 "A" and "B" steam generators for the effective full power day shutdown.

The total exposure accumulated during this outage was 268.9 man rem. Table 4 gives a breakdown of this exposure by job function.

The unit returned to line at 0312 hours on April 6, 1980 with a primary-to-secondary leakage rate of approximately ten gallons per day.

This event is reportable in accordance with Technical Specification 15.6.9.2.A.3.

TABLE 1

"A" STEAM GENERATOR TUBES PLUGGED

Tube	Defect	Location
R12C19	80%	19-21" above tube end
R07C22	29/96%	12/17" above tube end
R18C22	66%	20" above tube end
R10C23	41%	20" above tube end
R07C24	83%	17-20" above tube end
R08C24	79%	17-21" above tube end
R25C45	69%	12-20" above tube end
R20C48	85%	21" above tube end
R09C49	90%	21" above tube end
R17C50	85%	19" above tube end
R19C50	97%	11" above tube end
R20C50	97%	11" above tube end
R12C59	87%	21" above tube end
R12C61	83%	17" above tube end
R14C63	83%	19" above tube end
R15C66	60%	18" above tube end
R20C41	91%	19" above tube end
R25C43	73%	17" above tube end
R15C28	Undefinable Indication	21" above tube end
R28C34	Undefinable Indication	18-20" above tube end
R28C35	Undefinable Indication	17" above tube end
R11C46	Undefinable Indication	12-21" above tube end
R29C52	Undefinable Indication	14" above tube end
R08C27	Undefinable Indication	15-20" above tube end

TABLE 2

"B" STEAM GENERATOR TUBES PLUGGED

Tube	Defect	Location
R18C26	75%	18" above tube end
R13C26	73%	21" above tube end
R13C33	71%	20" above tube end
R06C34	91%	11" above tube end
R20C35	68%	21" above tube end
R08C37	89/100%	10-17"/3-6" above tube end
R19C37	58%	1/2" above tubesheet
R10C41	70%	21" above tube end
R30C41	47%	21" above tube end
R30C42	48%	21" above tube end
R22C46	76%	15" above tube end
R24C48	84%	12" above tube end
R30C48	85%	21" above tube end
R25C49	84%	5" above tube end
R20C51	99%	16" above tube end
R23C54	86%	4-21" above tube end
R23C57	56%	17" above tube end
R21C58	83%	21" above tube end
R02C72	92%	3" above tube end
R14C59	75%	21" above tube end
R21C63	62%	21" above tube end
R12C67	66%	21" above tube end
R25C55	74%	15" above tube end
R26C53	86%	18" above tube end
R30C43	Undefinable Indication	21" above tube end
R22C63	Undefinable Indication	21" above tube end
R22C64	Undefinable Indication	20" above tube end
R23C44	Leaking tube; no defect identified	
R25C48	Leaking tube; no defect identified	
R23C55	Leaking tube; no defect identified	
R26C52	Leaking tube; no defect identified	
R29C53	Leaking tube; not inspected	
R29C42	Plugged as a precautionary measure; possibly damaged during tube pulling	
R31C42	Plugged as a precautionary measure; possibly damaged during tube pulling	
R28C40	Plugged as a precautionary measure; possibly damaged during tube pulling	

Tube	Defect	Location
R30C40	Plugged as a precautionary measure; possibly damaged during tube pulling	

Explosive Plugs Repaired

R23C50	R25C53
R29C41	R22C48 (Cold Leg)

TABLE 3

EXTENT OF EDDY CURRENT AND RESULTS

Tubes Plugged	"A" Steam Generator	"B" Steam Generator
Deep Crevice Defects	18	23
Undefinable Indications (located within the tubesheet)	6	3
Defect above the Tubesheet	0	1
Leaking Tubes	0	5
Tubes Plugged as a Conservative Measure	0	4
Total Tubes Plugged	24	36
Explosive Plugs Repaired	0	4
Extent of Inspection		
Tubes Inspected Through the First Support	936	794
Tubes Inspected the Full Length	167	141
	1,103	935
Indications Identified		
<20% (Cold Leg)	1	0
20-39%	1**	0
40-49%	1	2
50-59%	0	2
60-69%	3	3
70-79%	2	7
80-89%	7	7*
90-99%	5**	3
100%	0	1*
No Defects Detected	1,078	909

*One tube contained both a 89% and a 100% defect.
**One tube contained both a 29% and a 96% defect.

TABLE 4

60 EFFECTIVE FULL POWER DAY SHUTDOWN
STEAM GENERATOR ACCUMULATED EXPOSURES

Function	Exposure (Man Rem)
Plant Steam Generator Support	3.8
Visual Inspections	3.3
Eddy Current	14.7
Tube Plugging	18.4
Tube Pulling and Associated Repair	214.9
Health Physics Coverage	13.8
TOTAL	268.9

NOTE: The above values are based on dosimeter readings; actual TLD values should be somewhat less.