NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

0 1 | WIPBH1 ② LICENSEE CODE | 00-00000-00 ③ LICENSE NUMBER | 41111 ④ LICENSE TYPE | ⑤ CAT

CON'T

0 1 | REPORT SOURCE L ⑥ | 0500026 6 ⑦ DOCKET NUMBER | 103081 ⑧ EVENT DATE | 111381 ⑨ REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

0 2 The unit was shut down on 10/09/81 for refueling. Eddy current examina-

0 3 tion of the steam generator tubes was conducted from 10/26/81 to 10/30/81.

0 4 On 10/30/81, verification of all initial eddy current data for tubes

0 5 with indications exceeding the plugging limit was completed. Ten tubes

0 6 in the "A" steam generator and seven tubes in the "B" steam generator

0 7 had indications greater than 40%. This event is similar to others and

0 8 is reportable per Technical Specification 15.6.9.2.A.3.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	CB ⑪	E ⑫	F ⑬	HTEXCH ⑭	F ⑮	Z ⑯

⑰ LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
81	—	017	/	01	T	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS ㉒	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
B ⑱	Z ⑲	Z ⑳	Z ㉑	0000	Y ㉓	Y ㉔	N ㉕	W120 ㉖

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ㉗

1 0 All indications greater than 40% were within the tubesheet region and

1 1 are considered to be IGA caused by caustic. A crevice flush is planned

1 2 to be performed before startup. One of the defective tubes (R18C68) in

1 3 the "A" steam generator was sleeved; all other tubes exceeding the

1 4 plugging limit will be plugged.

	FACILITY STATUS	% POWER	OTHER STATUS ㉚	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION ㉜
1 5	G ㉘	000 ㉙	N/A	C ㉛	Eddy Current Examination

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY ㉟	LOCATION OF RELEASE ㊱
1 6	Z ㉝	Z ㉞	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION ㊴
1 7	000 ㊲	Z ㊳	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION ㊶
1 8	000 ㊵	N/A

LOSS OF OR DAMAGE TO FACILITY ㊸

	TYPE	DESCRIPTION
1 9	Z ㊷	N/A

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PDR ADOCK 05000266
S PDR

PUBLICITY

	ISSUED	DESCRIPTION ㊺	NRC USE ONLY
2 0	N ㊹	N/A	

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GPO 917-926

ATTACHMENT TO LICENSEE EVENT REPORT NO. 81-017/01T-0

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

On October 30, 1981, verification of all initial steam generator eddy current data for tubes with indications exceeding the plugging limit was completed. Ten tubes in the "A" steam generator and seven tubes in the "B" steam generator were verified to have degradations greater than 40%, which is the plugging limit of Technical Specification 15.6.2.A.5.

On October 9, Unit 1 was shut down for refueling. The 2000 psid primary-to-secondary hydrostatic test condition was established during cooldown of the unit. An 800 psig secondary-to-primary leak check was performed in the "B" steam generator on October 24 (a similar test in the "A" steam generator will be performed after sleeving is completed). Detailed inspection of the "B" steam generator tubesheet with remote video equipment showed a total of seven explosive plugs which were either wet, coated with boric acid, or dripping at a slow rate (two to three drops per minute). Of the seven plugs, two had similar observations noted in previous outages. Based on the low primary-to-secondary leak rate before shut-down (less than ten gallons per day), the high personnel radiation exposure required for weld repair, and potential future sleeving of tubes in the "B" steam generator, the one dripping plug will not be repaired during this outage. The specific conditions noted during the leak check are noted below.

"B" Steam Generator

R23C38	explosive plug, leaking, two to three drops per minute
R28C39	explosive plug, wet end, no drips
R23C53	explosive plug, wet end, no drips
R29C34	explosive plug, coated with boric acid
R29C37	explosive plug, coated with boric acid
R24C37	explosive plug, coated with boric acid
R13C61	explosive plug, coated with boric acid

The plugs in tubes R28C39 and R23C53 were noted as wet end plugs in previous leak tests.

The eddy current inspection programs for the steam generators consisted of the following:

1. Inspections of all previously degraded tubes through the U-bend in each steam generator, in accordance with Technical Specification requirements.

2. Inspection of 3% of the tubes through the U-bend in the "A" steam generator and full length inspection of 3% of the tubes in the "B" steam generator, satisfying the Technical Specification requirements. The full length inspections in "B" steam generator were done as a precautionary measure after receiving reports of cold leg indications in the steam generators at Indian Point 3.

3. Inspection of essentially all tubes in each steam generator through the first support plate on the hot leg side.

4. Full length inspection of two tubes in the "A" steam generator that exhibited cold leg indications in previous eddy current examinations.

Of the 2,851 open tubes in the "A" steam generator, 2,766 were inspected and 2,792 of the 2,857 open tubes in the "B" steam generator were inspected. The number of tubes that were not inspected are as follows:

Number of Tubes Not Inspected		Reason For Not Inspecting
"A"	"B"	
31	32	Located under eddy current fixture foot.
17	16	Contained template plugs.
32	4	Restricted tube ends.
2	13	Restricted at first support plate with 0.700 probe.
2	0	Dented tube ends.
1	0	Poor eddy current data.
85	65	

These tubes were not inspected because of the radiation exposure associated with moving template plugs, manual eddy current probing, and preparing dented tube ends. The noninspected tubes constitute less than 3% of the unplugged tubes, most are not located in the zones where large numbers of defects have occurred, and the overall eddy current results did not indicate the necessity to inspect the tubes.

A summary of eddy current indications and comparisons with the July 1981 and December 1980 eddy current tapes are as follows:

"A" Steam Generator

Tube	October 1981 Indication	Comparison of October 1981 With July 1981 Tapes	Comparison of October 1981 With December 1980 Tapes
R20C60	27%, 5" ATS, CL	NT	<20%, 5" ATS, CL
R28C48	35%, 2" ATS, CL	NT	28%, 1" ATS, CL
R06C81	<20%, 1" ATS	NC	NC
R11C74	77%, 15-18" ATE	NC	NDD
R05C69	<20%, 1/2" ATS	NDD	NDD
R05C68	21%, 1/2" ATS	NC	NC
R15C68	UDI, 10-15" ATE	Small change	NDD
R18C68	80%, 15-17" ATE	Small change	NDD
R23C67	73%, 8" ATE	NDD	NDD
R08C64	77%, 12" ATE	NC	NDD
R15C60	UDI, 14-18" ATE	NC	NC
R15C59	UDI, 7-20" ATE	NDD	NDD
R08C55	UDI, 17" ATE	NC	NC
R10C54	<20%, TTS	NC	<20%, TTS
R33C54	38%, 1/2" ATS	DS	22%, 1/2" ATS
R29C47	UDI, 8-14" ATE	NC	NC
R25C47	57%, 18" ATE	Small change	UDI, 18" ATE
R15C20	UDI, 8-14" ATE	NC	NC
R20C20	50%, 5" ATE	Some change	NDD
R10C21	90%, 15" ATE	NDD	NDD
R10C40	UDI, Roll to TTS	NC	Some change
R25C44	UDI, 15" ATE	NC	UDI, 15" ATE
R11C43	UDI, 18-20" ATE	NC	NC
R23C43	67%, 5-7" ATE	Some change	UDI, 5-7" ATE
R23C42	70%, 20" ATE	TP, NT	NDD
R12C41	UDI, 12" ATE	Some change	NDD
R30C39	56%, 11" ATE	NC	Some change
R27C38	UDI, 20" ATE	NC	Some change
R23C38	UDI, 20" ATE	NC	NDD @ 400 KH
R18C37	UDI, 8" ATE	NC	UDI - some change
R31C37	UDI, 11" ATE	Some change	NDD
R36C29	38%, TTS	NC	NC
R05C07	UDI, 15" ATE	NC	NC

ATE - Above Tube End
NDD - No Defect Detected
UDI - Undefinable Indication
ATS - Above Tubesheet
TTS - Top of Tubesheet
NC - No Change
CL - Cold Leg
NT - Not Tested
TP - Template Plug
DS - Distorted Signal

"B" Steam Generator

Tube	October 1981 Indication	Comparison of October 1981 With July 1981 Tapes	Comparison of October 1981 With December 1980 Tapes
R02C13	80%, 6" ATE	NDD	NDD
R02C15	UDI, 6-11" ATE	NC	NC
R18C27	64%, Top of Roll	NC	DS
R20C28	77%, 3-17" ATE	NC	UDI
R27C30	25%, 1" ATS	28%, NC	29%, 1/2" ATS, NC
R14C40	29%, 1" ATS	28%, NC	32%, 1" ATS, NC
R26C42	29%, 1" ATS	21%, NC	NDD
R25C46	95%, 8" ATE	NDD	NDD
R26C47	44%, 8-20" ATE	NC	NDD
R27C52	70%, 20" ATE	NC	NC-DS
R11C78	75%, 8" ATE	NDD	NDD

ATE - Above Tube End
NDD - No Defect Detected
UDI - Undefinable Indication
ATS - Above Tubesheet
TTS - Top of Tubesheet
CL - Cold Leg
NT - Not Tested
TP - Template Plug
DS - Distorted Signal
NC - No Change

Plugging of 16 of the 17 tubes with indications greater than 40% is scheduled to be performed later in the outage. Tubes that have been verified to contain indications exceeding the plugging limit and are scheduled for plugging are as follows:

"A" Steam Generator		"B" Steam Generator	
R20C20	R25C47	R02C13	R26C47
R10C21	R08C64	R18C27	R27C52
R30C39	R23C67	R20C28	R11C78
R23C42	R11C74	R25C46	
R23C43			

One tube in the "A" steam generator, R18C68, which was found to have an indication greater than 40% was sleeved as part of the sleeving demonstration program.

The October 1981 results and the comparison with previous eddy current tapes demonstrate that the continued use of multi-frequency eddy current inspection techniques and additional experience in interpretation of the eddy current data have permitted identification of small volume eddy current indications present in previous indications but not called out as indications. Only four new indications were found in the "A" steam generator and only three new indications were found in the "B" steam generator.

The 24-hour notification preceding this report stated that eleven tubes in the "A" steam generator had indications exceeding the plugging limit. However, the condition of one of the tubes, R25C44, has since been reevaluated and is now reported as having an undefinable indication, changing the number of pluggable tubes from eleven to ten. The reevaluation of this tube is based on further examinations of the latest eddy current tapes and comparisons made with the tapes of previous eddy current examinations.

Restrictions with the 0.720 inch and the 0.700 inch eddy current probes were encountered in both steam generators. Twenty-seven of the 32 restricted tube ends encountered with the 0.720 probe in the "A" steam generator during this inspection were not noted in either the July 1981 or December 1980 inspections. The new restrictions are believed to have been caused by residue from the channelhead decontamination process performed on October 24-26, 1981. In the "B" steam generator, most of the tubes found restricted at the first support plate with the probes were also noted as restricted in the July 1981 and December 1980 inspections.

A crevice flush will be performed before the unit is returned to service to remove impurities from the tubesheet crevice.

The NRC Resident Inspector was notified of these findings. This event is reportable in accordance with Technical Specification 15.6.9.A.3 and is similar to others.

Return to power is scheduled for December 6, 1981.