

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH
THIS INFORMATION COLLECTION REQUEST: 50.0 HRS.
REPORTED LESSONS LEARNED ARE INCORPORATED INTO
THE LICENSING PROCESS AND FED BACK TO INDUSTRY.
FORWARD COMMENTS REGARDING BURDEN ESTIMATE
TO THE INFORMATION AND RECORDS MANAGEMENT
BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY
COMMISSION, WASHINGTON, DC 20555-0001, AND TO
THE PAPERWORK REDUCTION PROJECT

FACILITY NAME (1)

Point Beach Nuclear Plant, Unit 1

DOCKET NUMBER (2)

05000266

PAGE (3)

1 OF 4

TITLE (4)

Component Cooling Water System Not In Accordance With Plant Design Basis

EVENT DATE (5)			LER NUMBER (6)		REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH H	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	04	97	97	-- 013	-- 01	05	30	97	Unit 2	05000301
									FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		0	20.2203(a)(1)			20.2203(a)(3)(i)		X	50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(iii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	or in NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME

David Weaver

TELEPHONE NUMBER (Include Area Code)

(414) 221-3418

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	CC	V	V085	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

X

NO

EXPECTED
SUBMISSION
DATE (15)

MONTH

DAY

YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 4, 1997, while Point Beach Nuclear Plant (PBNP) Unit 1 was in a hot standby condition and Unit 2 was shut down during its annual refueling outage, component cooling water (CCW) pump discharge cross-connect Valve CC-722B failed to open during valve manipulation tests. As a result, this valve was declared inoperable. PBNP FSAR Section 9.3 states that a cross-tie may be opened under abnormal conditions to allow unit-designated CCW pump(s) to supply the opposite unit. Since this cross-tie feature was not available due to the inoperability of Valve CC-722B, the plant was in a condition outside its design basis. An operability determination concluded that the Unit 1 CCW system was operable. A 4-hour report to the NRC was made under 10 CFR 50.72. The NRC resident inspectors were also notified.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Event Description:

On March 4, 1997, while Point Beach Nuclear Plant (PBNP) Unit 1 was in a hot standby condition and Unit 2 was shut down during its annual refueling outage, component cooling water (CCW) pump discharge cross-connect Valve CC-722B failed to open during valve manipulation tests. These tests were being conducted due to information revealed during compensatory measures discussions as part of our February 20, 1997, NRC Notice of Enforcement Discretion (NOED) request.

One compensatory measure included in our NOED request was that PBNP had the capability to cross-connect the Unit 1 and Unit 2 CCW systems should the system in one unit fail. Operations personnel were directed to review the abnormal operating procedure governing this evolution to ensure that they were familiar with the actions necessary to cross-connect the systems should a loss of the remaining Unit 1 pump occur prior to restoring the redundant pump to an operable status. As a result of the staff asking that the procedure for cross-connecting the CCW systems be reviewed, a previous operator noted that the valves had to be closed with substantial force in the past to prevent leakage. A condition report was issued and follow-up action included a stroke test of the cross-connect valves. The stroke tests determined that CCW pump discharge cross connect Valve CC-722B could not be opened within the specified torque value. The valve was subsequently declared inoperable. PBNP FSAR Section 9.3 states that a cross-tie may be opened under abnormal conditions to allow unit-designated CCW pump(s) to supply the opposite unit. Since this cross-tie feature was not available due to the inoperability of Valve CC-722B, the plant was in a condition outside its design basis. An operability determination concluded that the Unit 1 CCW system was operable. A 4-hour report to the NRC was made under 10 CFR 50.72. The NRC resident inspectors were also notified.

Energy Industry Identification System (EIIS) Identifiers:

<u>Component</u>	<u>Function</u>	<u>System</u>
Valve CC-722B	V	CC

Cause:

The cause of this event was an inoperable valve due to overtorquing in the closed position. Valve CC-722B had been torqued shut to resolve a recurrent seat leakage problem with the valve during the 1980s.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Corrective Actions:

The operability of the Unit 1/Unit 2 cross-tie will be resolved prior to returning Unit 2 to service.

Reportability:

This Licensee Event Report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(B), "Any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant."

Safety Assessment:

With Valve CC-722B inoperable, the Unit 1 and Unit 2 CCW systems could not be cross-connected and, at times, only one CCW pump was available to its associated unit. With only one CCW pump available to its associated unit, decay heat removal redundancy is not maintained. According to FSAR Section 9.3, two CCW pumps and two CCW heat exchangers are normally utilized to remove the residual and sensible heat during plant shutdown. If one of the pumps or two of the heat exchangers are not operative, safe shutdown of the plant is not affected; however, the time for cooldown is extended. The closed system outside containment requirements were not affected by Valve CC-722B being stuck in the shut position. All coolant boundaries provided by this valve are being maintained and no leakage was observed while valve manipulation was attempted. In addition, one CCW pump together with one CCW heat exchanger can accommodate the heat removal load on one unit following a loss-of-coolant accident. The CCW system components are accessible for repair after a loss-of-coolant accident. If during the post-accident phase the component cooling water supply is lost, core and containment cooling could be maintained until repairs were effected. Therefore, the health and safety of plant personnel and the general public were not impacted by this event.

Similar Occurrences:

The following LERs describe events involving the component cooling water (CCW) system being outside of its design basis:

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

LERTitle

266/96-009-00 Component Cooling Water System Outside Design Basis For Closed System Outside Containment

266/92-009-00 Component Cooling Water System Surge Tank Vent Valves Outside Design Basis

301/92-002-00 Radioactive Waste Disposal System Component Cooling Water Isolation Valves Outside Design Basis

The inoperability of CCW cross-connect valve CC-722B initiated a review to determine previous periods during which credit was taken for the cross-connect function. On February 26, 1995, credit was taken for the ability to cross-connect the CCW system when CCW pump 1P-011A was taken out of service for seal replacement. During this time, Unit 1 was operating at 100 percent power and Unit 2 was in hot shutdown for generator seal work. Technical Specification 15.3.3.C requires that during single unit operation, the two CCW pumps assigned to that unit be operable. In this case, we were taking credit for a Unit 2 CCW pump along with the remaining Unit 1 CCW pump to comply with TS 15.3.3.C. However, based on LER 97-013-00 which attributed the cause of the inoperable cross-connect valve as overtightening in the closed position (in the 1980s), CCW cross-connect valve CC-722B was inoperable on February 26, 1995. Hence, only one CCW pump was available to the operating unit, which violated TS 15.3.3.C. Pump P-011A was returned to service on March 2, 1995.

According to FSAR Section 9.3, two CCW pumps and two CCW heat exchangers are normally utilized to remove the residual and sensible heat during plant shutdown. If one of the pumps or two of the heat exchangers are not operative, safe shutdown of the plant is not affected; however, the time for cooldown is extended. Therefore, the health and safety of plant personnel and the general public were not impacted by the February 26, 1995, plant condition.