

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Point Beach Nuclear Plant Unit 2

DOCKET NUMBER (2)

0 5 0 0 0

PAGE (3)

1 OF 0 4

TITLE (4)

Containment Isolation Valve Leakage in Excess of Technical Specifications

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)															
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)													
1	0	2	2	8	5	8	5	0	0	2	0	0	1	2	1	8	8	5	None	0	5	0	0	0
										None	0	5	0	0	0									

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																	
POWER LEVEL (10)	0 0 0	<table border="1"><tr><td>20.402(b)</td><td>20.406(c)</td><td>50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.406(a)(1)(i)</td><td>50.36(c)(1)</td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.406(a)(1)(ii)</td><td>50.36(c)(2)</td><td>50.73(a)(2)(vii)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td></tr><tr><td>20.406(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td>50.73(a)(2)(viii)(A)</td><td></td></tr><tr><td>20.406(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td>50.73(a)(2)(viii)(B)</td><td></td></tr><tr><td>20.406(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(ix)</td><td></td></tr></table>										20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)	20.406(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)	20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)		20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)		20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	
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20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)																																	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
C. W. Fay, Vice President-Nuclear Power	AREA CODE 4 1 4 2 7 7 - 2 8 1 1

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD
X	B, D	I, S, V	V 0 8 5	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	X				

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

On October 5, 1985 Unit 2 was removed from service for its eleventh refueling. Type "B" and "C" local leak tests were performed during the outage. On October 17, 1985 the total as-found leakage exceeded the Technical Specification limit of 0.06 La because several valves had excessive leakage. The "A" reactor coolant pump component cooling water supply line check valve (755A) had leakage greater than that allowed by Technical Specifications 15.4.4.II.B and III.B. Another valve, the service air supply valve (SA-2C), had leakage 58.8% of the total allowed by Technical Specifications. Four other valves contributed leakage of 32.2% of that allowed by Technical Specifications.

Valve 755A, a 4", 150 lb., carbon steel, Velan, swing check, appeared to stick open during the initial Type "C" test. The required test pressure could not be achieved, thus, the leakage could not be quantified.

Follow-up maintenance could not find any problem with the valve. The valve was lapped and returned to service with a subsequent test resulting in a final test leak rate of 1680 standard cubic centimeters (sccm).

The total for the remainder of the valves tested during the Type "B" and "C" tests were 107% of that allowed by Technical Specifications. It should be noted, however, that over 90% of the total was due to five valves and over 50% was due to one valve, excluding 755A.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Point Beach Nuclear Plant	0500030185	-	002	-	0002	OF 04

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

During the leak rate testing being performed during the Unit 2 refueling outage on October 22, 1985 the "A" reactor coolant pump component cooling water supply containment isolation valve (755A) was found to have leakage such that the Technical Specification 15.4.4.III.B limit was exceeded. The leakage through this valve by itself violated the Technical Specification limit. Due to the limitations of the test equipment, a quantification of the as-found leak rate was not possible. The test equipment maximum scale is 140,000 sccm.

During the initial Type "C" test, the valve could not be pressurized to the required level. During a subsequent test after the valve was removed, disassembled, inspected, reassembled, and reinstalled, the as-left leak rate was 1680 sccm.

Since the valve could not be pressurized during this test, it is assumed that this valve on its own would have leaked at a rate high enough to violate the combined "B" and "C" limits set forth in the Technical Specifications. The subject valve is a 4", 150 psig, carbon steel, swing check, valve manufactured by the Velan Corporation. This check valve is located in an incoming component cooling water line inside containment. Outside containment additional isolation capability is available by means of operator action closing a remotely operated valve in series with the 755A valve. This secondary valve passed its Type "C" test with satisfactory results. The closed system of the component cooling water system provides a third barrier.

Follow-up maintenance of the 755A valve was done with no cause for excess leakage identified. This valve was the subject of leakage in excess of the limits allowed by Technical Specifications during the past two outages. In Licensee Event Report 83-004/01T-0 this valve was identified for additional evaluation. As discussed in LER 84-008, a fault with the valve was identified and no further action was planned. After the 1985 "C" test, it has become apparent that the repair of the valve during the 1984 outage has not improved the performance of the valve. The valve was reinstalled but, because of the leakage history, will be replaced during the next Unit 2 refueling outage.

The total leakage measured during the Type "B" and "C" tests done on the containment isolation valves for Unit 2 was 223,140 sccm plus the leakage through 755A. However, due to a discovered miscalibration of one of the leak rate detectors, another 26,000 sccm was conservatively added to the total. Therefore, the total leakage is conservatively estimated to be 249,140 sccm. This leakage, excluding that of 755A, is 107.8% of that allowed by Technical Specifications.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIR. IS: 8/31/85

FACILITY NAME (1) Point Beach Nuclear Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 1 8 5	LER NUMBER (6)			PAGE (3)		
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TEXT (If more space is required, use additional NRC Form 365A's) (17)

The valves, excluding 755A, contributing 10,000 sccm or more to the total leakage are as follows:

As-Found Condition

<u>Valve No.</u>	<u>Valve Description</u>	<u>Leakage</u>	<u>% of Tech Specs</u>
SA-2C	Service Air Supply Check	136,000 sccm	58.9
633	Containment Condensate Return	20,000 sccm	8.6
862B	Spray Discharge Check	24,000 sccm	10.4
3244 & 3245	Containment Purge Supply	21,000 sccm	9.1
755B	CCW to RCP PlB	10,000 sccm	4.3
All remaining valves "B" & "C" test		12,140 sccm	5.3
SUBTOTAL		223,140 sccm	96.6
Additional due to calibration		26,000 sccm	11.3
TOTAL*		249,140 sccm	107.9

*This total does not include the unquantified leak rate for 755A.

As-Left Condition

<u>Valve No.</u>	<u>Valve Description</u>	<u>Leakage</u>
SA-2C	Service Air Supply Check	528 sccm
633	Containment Condensate Return	172 sccm
862B	Spray Discharge Check	6 sccm
3244 & 3245	Containment Purge Supply	298 sccm
755A	CCW to RPC PlA	1,680 sccm
755B	CCW to RCP PlB	1,720 sccm

The sum of the as-left condition of all valves tested in these Type "B" and "C" tests is 6.65% of the total leakage allowed by Technical Specifications.

Valve SA-2C was found to have rust and scale preventing the closure of the check valve. The material was removed and the valve retested and returned to service. This check valve is the first-off valve outside containment. The second-off valve is normally closed during operation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
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Point Beach Nuclear Plant	0500030185	—	002	—	00	04	OF 04

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

Valve 633 (containment condensate return) was tested and found to have a leak rate as noted above. However, the leakage is believed to be through HV-286 which is the valve which is used to isolate the section of pipe used for the test. After repair of HV-286, the 633 valve was retested with the above as-left results. It should be noted that the 633 valve had no maintenance performed on it prior to the as-left test.

The spray discharge check valve 862B tested during the initial Type "C" test indicated a large leak rate. However, without any maintenance on this valve and the removal of boric acid crystals from valve 868B (part of the test pressure boundary), the 862B valve indicated a very low leak rate during the retest.

The containment purge supply valves were cleaned and retested and the leakage returned to 298 sccm. These valves demonstrate this level of leakage during the Type "C" test each year. These valves are locked shut during operation and are tested semi-annually.

The component cooling water to reactor coolant pump PlB check valve 755B had a leak rate of 10,000 sccm during the first test. The motor operated valves which provide the other boundary for the test were repaired by Maintenance and the test was rerun with a successful result.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i), "Any operation or condition prohibited by the plant's Technical Specifications." The Resident Inspector has been notified of this event.



Wisconsin Electric POWER COMPANY
231 W. MICHIGAN, P.O. BOX 2046, MILWAUKEE, WI 53201

VPNPD-85-560
NRC-85-130

December 18, 1985

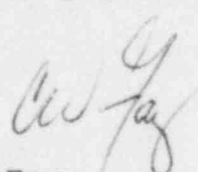
Mr. J. J. Keppler, Regional Administrator
Office of Inspection and Enforcement,
Region III
U. S. NUCLEAR REGULATORY COMMISSION
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

DOCKET NO. 50-301
LICENSEE EVENT REPORT NO. 85-002-00
CONTAINMENT ISOLATION VALVE LEAKAGE
IN EXCESS OF TECHNICAL SPECIFICATIONS
POINT BEACH NUCLEAR PLANT, UNIT 2

Enclosed is Licensee Event Report No. 85-002-00 for Point Beach Nuclear Plant, Unit 2. This report provides a description of an event involving a containment isolation valve being found with leakage in excess of that allowed by Technical Specifications. This event is reportable in accordance with 10 CFR 50.73(a)(2)(i), "Any operation or condition prohibited by the plant's Technical Specifications." The valve, which failed during the Type "B" and "C" tests, was discovered on October 22, 1985. The submittal of this Licensee Event Report was delayed to allow time to complete all Type "B" and "C" testing and evaluate results for inclusion in this LER. These tests were completed on November 18, 1985.

Very truly yours,


C. W. Fay
Vice President
Nuclear Power

Enclosure

Copies to ☒ NRC Document Control Desk,
Washington, D. C. (w/original)
NRC Resident Inspector

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