

POINT BEACH NUCLEAR PLANT, UNIT 1

WISCONSIN ELECTRIC POWER COMPANY

TYPE "B" & "C" LEAKAGE  
TESTING SUMMARY FOR  
THE PERIOD BETWEEN THE OCTOBER, 1981,  
TYPE "A" CILRT AND THE MARCH, 1984,  
TYPE "A" CILRT

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PDR ADOCK 05000266  
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REFUELING CONTAINMENT PENETRATION  
LEAKAGE RECORD

Sheet No. 1

UNIT # 1

DATE 1981-1982

TYPE "C" TESTS

ORT NO.	PENETRATION	TITLE		Refueling October-December 1981, as found leakage sccm	Refueling October-December 1981, as left leakage sccm	Refueling October-December 1982, as found leakage sccm	Refueling October-December 1982, as left leakage sccm	
25	9	RCDT Pump Suction Line	Enter highest test	28	--	15	--	
26	10	Letdown Line		25	--	4	--	
27	11	RCP Seal Water Return Line		78	--	10	--	
28	12A	DI Water Line		11	--	1	--	
29	12B	Test Connection		0	--	0	--	
30	12C	RCDT and PRT Vent	Add tests together	13003	12	2	--	
31	14A	Nitrogen Supply to PRT		0	--	4	--	
32	14C	Nitrogen Supply to the Accumulators		28	--	16	--	
33	25C	PACVS Return Line		0	--	1460	0	
34	26	Charging Line Check Valve		3	--	45000	60	
35	28A	Hot Leg Sample	Enter highest test	2000	--	22	--	
36	28B	Pressurizer Liquid Space Sample	Enter highest test	2000	--	3029	28	
37	28C	Pressurizer Steam Space Sample	Enter highest test	144	--	18	20	
38								
39	29A	Seal Injection Supply RCP "A"		4	--	9	--	
40	29B	Seal Injection Supply RCP "B"		17	--	14	--	
41	30A	Test Connection		1	--	4	--	

REFUELING CONTAMINANT PENETRATION  
LEAKAGE RECORD

UNIT # 1  
DATE 1983-1984

TYPE "C" TESTS

ORT NO.	PENETRATION	TITLE	Refueling October, 1983 - April, 1984 as Found Leakage, SCCM	Refueling October, 1983 - April, 1984 as left Leakage, SCCM
25	9	RCDF Pump Suction Line Enter highest test	1.3	78
26	10	Letdown Line	2.1	18
27	11	RCP Seal Water Return Line Enter highest test	75	215
28	12A	DI Water Line	13.5	--
29	12B	Test Connection	5	--
30	12C	RCDF and PRT Vent Add tests together	31	--
31	14A	Nitrogen Supply to PRT	16.1	--
32	14C	Nitrogen Supply to the Accumulators	21	--
33	25C	PACVS Return Line	1465	11
34	26	Charging Line Check Valve	176000	14
35	28A	Hot leg Sample	600	1870
36	28B	Pressurizer Liquid Space Sample	20	17.5
37	26C	Pressurizer Steam Space Sample	6	43
38				
39	29A	Seal Injection Supply RCP "A"	8	--
40	29B	Seal Injection Supply RCP "B"	4	--
41	30A	Test Connection	1.5	--

REFUELING CONTAINMENT PENETRATION  
LEAKAGE RECORD

UNIT # 1  
DATE 1981-1982

TYPE "C" TESTS

TEST NO.	PENETRATION	TITLE		Refueling October- December 1981, As Found Leakage sccm	Refueling October- December 1981, As Left Leakage sccm	Refueling October- December 1982, As Found Leakage sccm	Refueling October- December 1982, As Left Leakage sccm
42	30C	Reactor Makeup Water Supply	Enter highest test	1	--	30	--
43	31B	Containment Sample Line	Enter highest test	3	--	0	--
44	31C	PACVS Vent Line	Enter highest test	0	--	2	--
45							
46	32C	Auxiliary Charging Line		11	--	19	--
47	33A	Instrument Air Supply 3047	Enter highest test	19	--	392	--
48	33B	Instrument Air Supply 3048	Enter highest test	2	--	100	--
49	33C	Service Air Supply		145000	25	0	--
50	34A	Sample Line PRT to Gas Analyzer	Add tests together	13	--	40	--
51	34C	SG "A" Sample Line		NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>
52	34B	SG "B" Sample Line		NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>
53	34D	Sample Line RCDT to Gas Analyzer	Enter highest test	1	--	3	--
54	50	SG Blowdown, 2045 & 5959 <sup>(5)</sup>		NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	8000	0
55	51	SG Blowdown, 2042 & 5958 <sup>(5)</sup>		NA <sup>(1&amp;3)</sup>	NA <sup>(1&amp;3)</sup>	10000	40
56	52	Heating Steam Supply		28	--	4	--
57	53	Condensate Return from Containment		9	--	3.5	--
58	56	Containment Test Connection		0	--	10	--

REFUELING CONTAINMENT PENETRATION  
LEAKAGE RECORD

UNIT : 1  
DATE : 1983-1984

TYPE "C" TESTS

TEST NO.	PENETRATION	TITLE	Refueling October, 1983 - April, 1984, As Found Leakage sccm	Refueling October, 1983 - April, 1984, As Left Leakage sccm			
42	30C	Reactor Makeup Water Supply	Enter highest test	9	--		
43	31B	Containment Sample Line	Enter highest test	0	3		
44	31C	PACVS Vent Line	Enter highest test	0	--		
45							
46	32C	Auxiliary Charging Line		10	--		
47	33A	Instrument Air Supply 3047	Enter highest test	1000	--		
48	33B	Instrument Air Supply 3048	Enter highest test	109	--		
49	33C	Service Air Supply		11	0		
50	34A	Sample Line PRT to Gas Analyzer	Add tests together	26	--		
51	34C	SG "A" Sample Line		NA (1&3)	NA (1&3)		
52	34B	SG "B" Sample Line		NA (1&3)	NA (1&3)		
53	34D	Sample Line RCDT to Gas Analyzer	Enter highest test	3	--		
54	50	SG Blowdown, 2045 & 5059 <sup>(5)</sup>		275	--		
55	51	SG Blowdown, 2042 & 5059 <sup>(5)</sup>		85.1	--		
56	52	Heating Steam Supply		552	1228		
57	53	Condensate Return from Containment		79.8	172		
58	56	Containment Test Connection		0	7		

REFUELING CONTAINMENT PENETRATION

LEAKAGE RECORD

UNIT # 1

DATE 1981-1982

TYPE "C" TESTS

CKI NO.	PERITRA-TICQJ	TITLE	Refueling October-December, 1981, as Found Leakage SCCM	Refueling October-December, 1981, as Left Leakage SCCM	Refueling October-December, 1982, as Found Leakage SCCM	Refueling October-December, 1982, as Left Leakage SCCM
59	54	P14A Spray Pump Discharge Check Valve	115	502	42	385
60	55	P14B Spray Pump Discharge Check Valve	8	50	45	303
61	71	Sump "A" Drain to Auxiliary Building	3	--	0	--
62	V1	Purge Supply	80	--	13	--
63	V2	Purge Exhaust	278	--	85	--
64	X1	R11/R12 Suction Supply	42	--	300	--
65	X2	R11/R12 Discharge Return	262	--	8000	49
66	31A	Pressure Test of PT-945 and 946	1	49	NA (2)	NA (2)
67	19 & 20	CCW to and from excess letdown HEX	5	--	511	--
68	15 & 17	CCW to and from RCP "A"	386	--	66	--
69	16 & 18	CCW to and from RCP "B"	741	--	>128000	1530
70						
71						
72						
73						
74						

END OF TYPE "C" TESTS



REFUELING CONTAINMENT PENETRATION  
LEAKAGE RECORD

CHK # 1  
DATE 1983-1984

TYPE "C" TESTS

CKI NO.	PENETRA-TION	TITLE	Refueling October, 1983 - April 1984, as found leakage SCCM	Refueling October, 1983 - April 1984, as left leakage SCCM
59	54	P14A Spray Pump Discharge Check Valve	32	--
60	55	P14B Spray Pump Discharge Check Valve	347	--
61	71	Sump "A" Drain to Auxiliary Building	0	--
62	V1	Purge Supply	> 470	224
63	V2	Purge Exhaust	>105000	10
64	X1	R11/R12 Suction Supply	8	--
65	X2	R11/R12 Discharge Return	15000	92
66	31A	Pressure Test of PT-945 and 946	2.2	--
67	19 & 20	CCW to and from excess letdown ILEX	2000	15.6
68	15 & 17	CCW to and from RCP "A"	6	--
69	16 & 18	CCW to and from RCP "B"	2395	--
70				
71				
72				
73				
74				

END OF TYPE "C" TESTS

UNIT # 1  
 DATE 1981 - 1982

ORT NO.	PENETRATION	TITLE	Refueling October - December, 1981, as Found Leakage, sccm	Refueling October - December, 1981, as Left Leakage, sccm	Refueling October - December, 1982, as Found Leakage, sccm	Refueling October - December, 1982, as Left Leakage, sccm
12	No Number	Fuel Transfer Tube Flange	148	--	24	--
13	No Number	Equipment Hatch Flange	01	--	10	--
70						
71	E-58	Electrical Penetration	0	--	3	--
72	E-21 E-22	Electrical Penetration	0	--	0	--
73	E-28	Electrical Penetration	0	--	0	--
74						
75	P-50, 51 52 & 53	Mechanical Penetration Test	22	--	70	--
76	P-58	Mechanical Penetration Test	15	--	1	--
77	P-57	Mechanical Penetration Test	6	--	6	--
78	P-69 & 70	MPT (Sump "A" & "B" Drain Lines)	0	--	55	--
79	No Number	MPT (Fuel Transfer Tube Penetration)	0	--	6	--
80	P-13, 27 & 29	Mechanical Penetration Test	0	--	2	--
81	P-37, 38 36, 40 48, 45 44, 46	Mechanical Penetration Test	0	--	0	--
82	P-5 & 6, 47, 43 39, 35 55, 54	Mechanical Penetration Test	0	--	0	--



UNIT # 1  
DATE 1983 - 1984

ORT NO.	PENETRATION	TITLE	Refueling - October - 1983 - April, 1984, as Found Leakage, SCCM	Refueling - October - 1983 - April, 1984, as Left Leakage, SCCM
12	No Number	Fuel Transfer Tube Flange	29	13.5
13	No Number	Equipment Hatch Flange	148	--
70				
71	E-58	Electrical Penetration	0	--
72	E-21 E-22	Electrical Penetration	11	--
73	E-28	Electrical Penetration	6	--
74				
75	P-50, 51 52 & 53	Mechanical Penetration Test	20	--
76	P-58	Mechanical Penetration Test	29	--
77	P-57	Mechanical Penetration Test	58	--
78	P-69 & 70	MPT (Sump "A" & "B" Drain Lines)	15	--
79	No Number	MPT (Fuel Transfer Tube Penetration)	20	--
80	P-13, 27 & 29 P-37, 38	Mechanical Penetration Test	23	--
81	36, 40 48, 45 44, 46	Mechanical Penetration Test	30	--
82	P-5 & 6, 47, 43 39, 35 55, 54	Mechanical Penetration Test	0	--



UNIT # 1  
DATE 1983-1984

ORT NO.	PENETRATION	TITLE	Refueling October, 1983 - April, 1983, as Found Leakage SCCM	Refueling October, 1983 - April, 1984, as Left Leakage SCCM
83	P-15, 16 17, 18 10, 11	Mechanical Penetration Test	0	--
84	P-7, 8, 9, 22	Mechanical Penetration Test	5	--
END OF TYPE "B" TESTS				

## NOTES: (For "B" &amp; "C" test results)

1. Modification E-168, completed April 6, 1978, removed the containment isolation signal from the steam generator blowdown and sample valves; leak testing of these valves is therefore, "No longer required under Appendix J."
2. This leak test is only required during refueling periods following Type "A" containment pressure testing.
3. C. W. Fay to H. R. Denton letter dated May 2, 1980, committed to put the containment isolation signals back on the steam generator blowdown and sample valves but not test them per Appendix J.
4. Electrical penetrations E58, E20, E22, and E1 were newly installed during Refueling 7 (April - May, 1981). Because of their design, they require a leak test (Type "B") and will be tested regularly henceforth.
5. Per commitments contained in C. W. Fay to H. R. Denton letter, dated December 12, 1980, modification request M-730 added an automatic containment isolation valve, inside containment, to each steam generator blowdown line. These valves were added during the October to December, 1981, refueling outage. Type "C" valve testing was also initiated.

TYPE "B" PERSONNEL HATCH TESTS

TS-10	Lower Personnel Hatch	07-01-82	66 scc/min
TS-10	Upper Personnel Hatch	07-03-82	1300 scc/min
TS-10	Lower Personnel Hatch	11-09-82	1386 scc/min
* TS-10	Lower Personnel Hatch	11-10-82	348 scc/min
TS-10	Upper Personnel Hatch	11-11-82	87 scc/min
TS-10	Lower Personnel Hatch	12-15-82	4000 scc/min
TS-10	Upper Personnel Hatch	12-15-82	8000 scc/min
TS-10	Lower Personnel Hatch	07-26-83	323 scc/min
TS-10	Upper Personnel Hatch	07-26-83	882 scc/min
* TS-10	Upper Personnel Hatch	08-17-83	888 scc/min
TS-10	Lower Personnel Hatch	03-24-84	1300 scc/min
TS-10	Upper Personnel Hatch	03-30-84	1798 scc/min
TS-10	Lower Personnel Hatch	04-04-84	1360 scc/min

TYPE "B" TESTS PERFORMED BETWEEN REFUELINGS

ORT-71	Electrical Penetration (E-58)	07-14-81	0 scc/min
ORT-73	Electrical Penetration (E-28)	07-14-81	0 scc/min

\* Retest After Maintenance

TYPE "C" TESTS PERFORMED BETWEEN REFUELINGS

<u>Test</u>	<u>Penetration</u>	<u>Date</u>	<u>Title</u>	<u>Leakage (sccm)</u>
ORT #62	V1	04-10-82	Purge Exhaust	550
ORT #63	V2	04-10-82	Purge Supply	90
TS-35	V1	03-19-83	Purge Exhaust	0
TS-35	V2	03-19-83	Purge Supply	170000
* TS-35	V2	03-19-83	Purge Supply	5
* ORT #65	X2	07-16-82	R11/R12 Return	18

\* Following Maintenance Action



COMMENTS ON VALVES WITH LEAKAGE  
APPROACHING OR EXCEEDING 0.6 La AT  
STANDARD TEMPERATURE AND PRESSURE

ORT #49 (1981 Refueling)

The check valve (2-C) in the service air supply line to containment was found to leak at 145000 sccm. Upon disassembly, the valve was found to contain a buildup of foreign material. The valve internals were cleaned and the valve was reassembled. The valve was retested and found to leak at 25 sccm. (Licensee Event Report 81-014/01T-0.)

ORT #69 (1982 Refueling)

The check valve (1-755B) in the CCW supply line to the "B" reactor coolant pump was found to leak in excess of 128000 sccm. The actual leakage is not known as the required test pressure (60 psig) could not be achieved. The valve was disassembled, relapped and reassembled. The valve was retested and found to leak at 1630 sccm. (Licensee Event Report 82-020/01T-0.)

ORT #34 (1983 Refueling)

The charging line check valve (1-370) was found to leak at 176000 sccm. Upon disassembly, the valve was found to contain foreign material. The valve was cleaned, relapped and reassembled. The valve was retested and found to leak at 14 sccm. (Licensee Event Report 83-009/01T-0.)

ORT #62 (1983 Refueling)

During the type "C" test of the purge exhaust valves, valve 1CV-3212 was noted to be leaking air into the test volume (from its inflatable seal). Thus, the indicated test leakage of 470 sccm is not valid, although the sealing performance of the valve was not significantly affected by the leaking seal as evidenced by achieving test pressure at a relatively low flow rate. The valve was disassembled and the inflatable seal was replaced. The valve was retested and found to leak at 224 sccm. (Licensee Event Report 83-009/01T-0.)

ORT #63 (1983 Refueling)

The purge valve 1CV-3245 was tested and found to leak in excess of 105000 sccm. Actual leakage could not be quantified as test pressure could not be achieved. Upon disassembly, the valve was found to contain a buildup of foreign material. The valve was cleaned and reassembled. The valve was retested and found to leak at 10 sccm. (Licensee Event Report 83-009/01T-0.)

COMMENTS ON VALVES WITH LEAKAGE  
APPROACHING OR EXCEEDING 0.6 La AT  
STANDARD TEMPERATURE AND PRESSURE  
(continued)

TS-35 (03-19-83)

The purge supply valve 1CV-3245 was tested and found to leak at 170000 sccm. Upon maintenance inspection, the valve was found to be improperly seated. The valve was seated, the seating mechanism repaired and returned to service. The valve was retested and found to leak at 5 sccm. (No LER.)