WISCONSIN ELECTRIC

POWER COMPANY

POINT BEACH NUCLEAR PLANT

UNIT NOS. 1 AND 2

Semiannual

Monitoring Report

January 1, 1979 through June 30, 1979

POOR ORIGINAL

921002

U.S. Nuclear Regulatory Commission
Docket Nos. 50-266 and 50-301
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TABLE OF CONTENTS

SECTION	TITLE	PAGE
1.0	RADIOACTIVE LIQUID RELEASES	1
2.0	RADIOACTIVE AIRBORNE RELEASES	4
3.0	RADIOACTIVE SOLID WASTE SHIPMENTS	9
4.0	NEW AND SPENT FUEL SHIPMENTS AND RECEIPTS	9
5.0	RADIOLOGICAL ENVIRONMENTAL MONITORING	10
6.0	NON-RADIOLOGICAL ENVIRONMENTAL MONITORING	11
7.0	NON-RADIOACTIVE CHEMICAL RELEASES	12
8.0	CIRCULATING WATER SYSTEM OPERATIONS	13
9.0	LEAK TESTING OF RADIOACTIVE SOURCES	13

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1.0 RADIOACTIVE LIQUID RELEASES

Radioactive liquid releases via the circulating water discharge are summarized for total release and by individual source on a monthly basis in Table 1-1. An isotopic breakdown of the total radioactive liquid release is presented in Table 1-2.

The total radioactive liquid release excluding tritium for this reporting period was 3.90E-01 Curies which included 1.49E-02 Curies of processed radioactive waste and primary coolant system letdown, 3.63E-01 Curies of Unit 1 steam generator blowdown, 1.28E-02 Curies of Unit 2 steam generator blowdown and 0 Curies of retention pond effluent. The total tritium release for this reporting period was 455 Curies, which included 445 Curies of processed radioactive waste and primary coolant system letdown, 7.94 Curies of Unit 1 steam generator blowdown, 1.14 Curies of Unit 2 steam generator blowdown, and 1.87 Curies of retention pond effluent. All radioactive liquid releases to Lake Michigan were made through the circulating water discharge.

1.1 Additions to Semiannual Monitoring Report July 1, 1978 through December 31 1978

The following data which was not available at the time of the report preparation should be added to Table 1-1 of the Semiannual Monitoring Report July 1, 1978, through December 31, 1978.

	November	December	Total
Total Activity Released, Ci			
Gross Alpha	<MDA	<MDA	1.96E-05
Average Diluted Discharge Concentration, µCi/cc	----	----	
Gross Alpha	----	----	
% MPC	----	----	

The following data which was not available at time of report preparation should be added to Table 1-2 of the Semiannual Monitoring Report July 1, 1978, through December 31, 1978.

	November	December	Total, Ci
Sr-89	7.94E-06	<MDA	6.41E-04
Sr-90	<MDA	<MDA	7.06E-04
Alpha	<MDA	<MDA	1.96E-05

921004

TABLE 1-1

RADIOACTIVE LIQUID CIRCULATING WATER RELEASE SUMMARY
PERIOD JANUARY 1 TO JUNE 30, 1979

	January	February	March	April	May	June	Total
Total Activity Released, Ci							
Beta-Gamma (1)	2.85E-02	1.83E-02	2.99E-01	1.60E-02	8.26E-03	1.98E-02	3.90E-01
Gross Alpha	<MDA	<MDA	<MDA	6.32E-07	(3)	(3)	(3)
Tritium	5.17E+01	3.22E+01	1.52E+02	2.76E+01	6.69E+01	1.25E+02	4.55E+02
Total Volumes Released, Gal:							
Processed Waste	5.18E+04	3.88E+04	2.54E+05	8.36E+04	6.82E+04	1.14E+05	6.10E+05
Steam Generator Blowdown, Unit 1	2.50E+06	2.62E+06	2.22E+06	2.60E+06	2.56E+06	2.50E+06	1.50E+07
Steam Generator Blowdown, Unit 2	2.55E+06	2.48E+06	1.94E+06	1.29E+06	2.44E+06	2.66E+06	1.34E+07
Retention Pond	3.37E+06	1.64E+06	2.33E+06	3.36E+06	1.74E+06	1.70E+06	1.41E+07
Total	8.47E+06	6.78E+06	6.74E+06	7.33E+06	6.81E+06	6.97E+06	4.31E+07
Volume of Dilution Water, ml	3.70E+13	3.41E+13	3.22E+13	5.56E+13	6.96E+13	6.52E+13	2.94E+14
Average Diluted Discharge Concentration, µCi/cc							
Gross Beta-Gamma	7.71E-10	5.39E-10	9.29E-09	2.87E-10	1.19E-10	3.03E-10	
% MPC	5.62E-02	4.54E-02	7.64E-01	1.88E-02	1.66E-02	1.90E-02	
Gross Alpha	--------	--------	--------	1.14E-14	(3)	(3)	
% MPC	--------	--------	--------	3.80E-05	(3)	(3)	
Tritium	1.40E-06	9.44E-07	4.72E-06	4.96E-07	9.61E-07	1.92E-06	
% MPC	4.67E-02	3.15E-02	1.57E-01	1.65E-02	3.20E-02	6.39E-02	
Maximum Discharge Concentration During Release Period, µCi/cc							
Gross Beta-Gamma (1)	5.92E-09	1.01E-09	2.41E-07	1.68E-09	6.16E-10	2.13E-09	
Tritium	1.35E-04	1.24E-04	2.85E-04	3.19E-05	6.55E-05	6.41E-05	

NOTES: (1) Not including Strontium results which generally have a negligible effect.
(2) Summation of the individual isotopic 10 CFR 20, Appendix B Table II MPC's.
(3) Data unavailable at time of report writing.

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TABLE 1-2

ISOTOPIC COMPOSITION OF CIRCULATING WATER DISCHARGES
PERIOD JANUARY 1 TO JUNE 30, 1979

Nuclides Released	January (Curies)	February (Curies)	March (Curies)	April (Curies)	May (Curies)	June (Curies)	Total (Curies)
H-3	5.17E+01	3.22E+01	1.52E+02	2.76E+01	6.69E+01	1.25E+02	4.55E+02
F-18	<MDA	<MDA	2.62E-03	<MDA	<MDA	<MDA	2.62E-03
Cr-51	<MDA	<MDA	<MDA	1.47E-05	<MDA	<MDA	1.47E-05
Mn-54	<MDA	<MDA	4.54E-04	<MDA	<MDA	<MDA	4.54E-04
Co-57	<MDA	<MDA	1.32E-04	<MDA	<MDA	<MDA	1.32E-04
Co-58	<MDA	<MDA	6.27E-03	1.25E-03	<MDA	<MDA	7.52E-03
Co-60	<MDA	2.38E-04	1.27E-03	1.09E-03	<MDA	1.26E-05	2.61E-03
Sr-89	<MDA	<MDA	3.75E-06	<MDA	(1)	(1)	(1)
Sr-90	<MDA	<MDA	<MDA	<MDA	(1)	(1)	(1)
Sr-91	<MDA	<MDA	5.43E-04	<MDA	<MDA	<MDA	5.43E-04
Y-91m	<MDA	<MDA	3.34E-04	<MDA	<MDA	<MDA	3.34E-04
Nb-95	<MDA	<MDA	1.74E-04	<MDA	<MDA	<MDA	1.74E-04
Zr-95	<MDA	<MDA	6.92E-04	<MDA	<MDA	<MDA	6.92E-04
Mo-99	<MDA	<MDA	1.12E-03	<MDA	<MDA	<MDA	1.12E-03
Ru-103	<MDA	<MDA	2.03E-04	3.50E-06	<MDA	<MDA	2.06E-04
Sn-113	<MDA	<MDA	5.83E-06	<MDA	<MDA	<MDA	5.83E-06
Sb-125	<MDA	<MDA	5.95E-05	<MDA	<MDA	<MDA	5.95E-05
I-131	2.12E-03	1.94E-03	3.74E-02	8.23E-04	1.64E-03	1.11E-03	4.50E-02
I-132	3.38E-03	2.15E-03	4.62E-02	1.03E-03	1.82E-04	1.98E-03	5.49E-02
I-133	9.74E-03	7.26E-03	9.03E-02	6.77E-03	5.86E-03	6.47E-03	1.26E-01
I-134	5.95E-04	1.47E-03	1.18E-02	1.58E-03	<MDA	1.14E-03	1.66E-02
I-135	6.90E-03	4.51E-03	5.17E-02	1.13E-03	<MDA	3.49E-03	6.77E-02
Te-132	<MDA	<MDA	5.28E-05	<MDA	<MDA	<MDA	5.28E-05
Xe-131m	2.21E-04	<MDA	<MDA	<MDA	<MDA	<MDA	2.21E-04
Xe-133	7.94E-04	6.47E-05	8.25E-03	5.35E-04	5.66E-04	1.89E-04	1.04E-02
Xe-135	7.74E-04	1.30E-05	1.77E-02	4.46E-04	<MDA	3.70E-05	1.90E-02
Cs-134	<MDA	2.26E-06	3.53E-03	1.43E-06	<MDA	1.63E-02	5.16E-03
Cs-136	<MDA	<MDA	1.28E-05	<MDA	<MDA	<MDA	1.28E-05
Cs-137	2.04E-05	4.76E-05	8.26E-03	1.27E-03	2.39E-05	1.67E-03	1.13E-02
Cs-138	3.99E-03	6.78E-04	5.51E-03	<MDA	<MDA	2.00E-03	1.22E-02
Ce-139	<MDA	<MDA	2.30E-04	<MDA	<MDA	<MDA	2.30E-04
Ce-144	<MDA	<MDA	2.02E-03	<MDA	<MDA	<MDA	2.02E-03
Ba-140	<MDA	<MDA	1.94E-03	<MDA	<MDA	<MDA	1.94E-03
La-140	<MDA	<MDA	8.07E-04	<MDA	<MDA	<MDA	8.07E-04
Bi-207	<MDA	<MDA	3.72E-06	<MDA	<MDA	<MDA	3.72E-06
Alpha	<MDA	<MDA	<MDA	6.[illegible]-07	(1)	(1)	(1)
TOTAL	--------	--------	-------	--------	-------	--------	3.90E-01 (2)

NOTES: <MDA - Less than minimum detectable activity.
(1) - Data unavailable at report time.
(2) - Total does not include tritium, strontium, or alpha.

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2.0 RADIOACTIVE AIRBORNE RELEASES

Radioactive airborne releases during normal plant operation are reported by total release in Table 2-1, and summarized by isotope in Table 2-2. The release paths contributing to radioactive airborne releases during this reporting period were the auxiliary building vent stack, Unit 1 containment purge stack, Unit 2 containment purge stack, drumming area vent stack, gas stripper building ventilation exhaust, combined air ejector decay duct exhaust and turbine building ventilation exhaust.

There were five gas decay tank releases during this report period.

2.1 Corrections and Additions to the Semiannual Monitoring Report July 1, 1978 through December 31, 1978

Table 2-1 and 2-2 in Section 2.0 of the Semiannual Monitoring Report covering the period July 1, 1978, through December 31, 1978, should be removed and destroyed. The following Tables 2-1 and 2-2 dated for that period should be substituted. This correction eliminates minor calculational errors that had been reported. In addition, the following data which was not available at the time of the report preparation for the original Table 2-2 has been incorporated in the revised Table 2-2.

	October	November	December	Total, Ci
Sr-89	2.33E-07	2.25E-07	2.33E-07	1.10E-06
Sr-90	<MDA	<MDA	<MDA	2.95E-11

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TABLE 2-1

RADIOACTIVE AIRBORNE RELEASE SUMMARY
PERIOD JANUARY 1 TO JUNE 30, 1979

	January	February	March	April	May	June	Total
Total Curies Released (Excluding Tritium)	1.28E+01	1.39E+01	4.17E+01	2.83E+01	5.39E+01	7.25E+01	2.23E+02
Total Xe-133 Equivalent Curies Released[1]	2.07E+02	2.16E+02	2.35E+03	7.16E+02	4.03E+02	5.40E+02	4.43E+03
Average Release Rate (Curies/Second)[2]	7.70E-05	8.90E-05	8.75E-04	2.76E-04	1.50E-04	2.08E-04	
Percent of Annual Technical Specification Limits[3]	3.86E-02	4.46E-02	4.38E-01	1.38E-01	7.53E-02	1.04E-01	
Maximum Hourly Average Release Rate (Curies/Second)[4]	1.51E-04	1.83E-03	3.62E-03	8.02E-04	9.94E-04	9.45E-04	
Monthly Average Site Boundary Concentration (μCi/cc)[2]	1.16E-10	1.34E-10	1.31E-09	4.14E-10	2.25E-10	3.13E-10	

[1] All gaseous and particulate releases are converted to "^{133}Xe equivalent" for calculational purposes using the ratio MPC_{Xe-133}/MPC_i. MPC's for isotopes of iodine and particulate with half-lives longer than eight days are reduced by a factor of 700.

[2] Averaged over one month and based on Xe-133 equivalent.

[3] Annual average Technical Specification limits are 0.2 Ci/sec Xe-133 based on $X/Q = 1.5 \times 10^{-6}$ sec/m^3. Maximum Technical Specification limits are 2.0 Ci/sec Xe-133 based on $X/Q = 1.5 \times 10^{-6}$ sec/m^3.

[4] Expressed as Xe-133 equivalent.

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TABLE 2-1

RADIOACTIVE AIRBORNE RELEASE SUMMARY
PERIOD JULY 1 TO DECEMBER 31, 1978

	July	August	September	October	November	December	Total
Total Curies Released (Excluding Tritium)	1.62E+01	4.09E+01	3.24E+01	3.57E+01	1.49E+01	1.31E+01	1.53E+02
Total Xe-133 Equivalent Curies Released[1]	7.82E+02	6.78E+02	2.64E+03	2.48E+03	5.94E+03	2.71E+02	1.28E+04
Average Release Rate (Curies/Second)[2]	2.91E-04	2.53E-04	1.02E-03	9.25E-04	2.29E-03	1.01E-04	
Percent of Annual Technical Specification Limits[3]	1.46E-01	1.27E-01	5.10E-01	4.63E-01	1.15E+00	5.07E-02	
Maximum Hourly Average Release Rate (Curies/Second)[4]	9.97E-04	1.02E-03	3.26E-03	2.74E-04	2.07E-03	3.57E-04	
Monthly Average Site Boundary Concentration (uCi/cc)[2]	4.38E-10	3.80E-10	1.53E-09	1.39E-09	3.44E-09	1.52E-10	

[1] All gaseous and particulate releases are converted to "^{133}Xe equivalent" for calculational purposes using the ratio MPC_{Xe-133}/MPC_i. MPC's for isotopes of iodine and particulate with half-lives longer than eight days are reduced by a factor of 700.

[2] Averaged over one month and based on Xe-133 equivalent.

[3] Annual average Technical Specification limits are 0.2 Ci/sec Xe-133 based on $X/Q = 1.5 \times 10^{-6}$ sec/m^3. Maximum Technical Specification limits are 2.0 Ci/sec Xe-133 based on $X/Q = 1.5 \times 10^{-6}$ sec/m^3.

[4] Expressed as Xe-133 equivalent.

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TABLE 2-2

RADIOACTIVE AIRBORNE RELEASE SUMMARY
PERIOD JANUARY 1 TO JUNE 30, 1979

	January (Curies)	February (Curies)	March (Curies)	April (Curies)	May (Curies)	June (Curies)	Total (Curies)
Tritium	1.47E+01	1.55E+01	3.99E+01	6.24E+01	1.21E+02	8.52E+01	3.39E+02
Noble Gases							
Ar-41	7.35E-01	6.36E-01	1.61E+00	2.12E+00	2.61E+00	2.97E+00	1.07E+01
Kr-85	3.68E-01	1.33E-01	4.47E+00	4.89E-01	5.35E-01	1.48E+00	7.47E+00
Kr-85m	1.27E+00	1.14E+00	1.86E+00	1.22E+00	5.78E+00	8.03E+00	1.93E+01
Kr-87	7.61E-01	8.95E-01	1.41E+00	9.61E-01	3.33E+00	4.68E+00	1.20E+01
Kr-88	1.89E+00	1.84E+00	2.51E+00	1.82E+00	7.88E+00	1.25E+01	2.84E+01
Xe-133	1.04E+00	1.21E+00	1.33E+01	9.34E+00	7.02E+00	6.63E+00	3.85E+01
Xe-133m	2.50E-02	4.20E-02	3.29E-01	1.30E-01	1.20E-01	1.56E-01	8.02E-01
Xe-135	4.50E+00	4.71E+00	1.06E+01	7.54E+00	2.22E+01	3.04E+01	7.99E+01
Xe-135m	7.75E-01	1.29E+00	2.33E+00	1.72E+00	1.70E+00	2.01E+00	9.84E+00
Xe-138	1.41E+00	1.92E+00	3.32E+00	2.93E+00	2.73E+00	3.64E+00	1.60E+01
Particulates with Half Lives Greater Than Eight Days and Iodines							
Cr-51	<MDA	<MDA	9.32E-07	<MDA	<MDA	<MDA	9.32E-07
Mn-54	<MDA	<MDA	<MDA	3.52E-09	<MDA	<MDA	3.52E-09
Co-56	<MDA	<MDA	1.20E-07	<MDA	<MDA	<MDA	1.20E-07
Co-58	<MDA	<MDA	1.57E-05	1.06E-05	<MDA	<MDA	2.63E-05
Co-60	<MDA	<MDA	1.05E-05	8.84E-06	<MDA	<MDA	1.94E-05
Sr-89	1.90E-07	1.72E-07	2.19E-07	(1)	(1)	(1)	(1)
Sr-90	7.28E-12	6.47E-12	5.47E-09	(1)	(1)	(1)	(1)
Zr-95	<MDA	<MDA	1.34E-06	<MDA	<MDA	<MDA	1.34E-06
I-131	3.50E-05	2.58E-05	4.14E-04	2.35E-04	3.00E-05	2.42E-05	7.64E-04
I-132	6.36E-10	<MDA	5.75E-03	7.50E-04	<MDA	<MDA	6.50E-03
I-133	9.08E-05	6.89E-05	1.98E-04	4.05E-05	3.14E-05	5.46E-05	4.84E-04
Cs-134	<MDA	<MDA	5.66E-07	<MDA	<MDA	6.20E-07	1.19E-06
I-134	<MDA	<MDA	9.34E-06	5.84E-08	<MDA	<MDA	9.40E-06
I-135	3.06E-08	3.76E-08	4.89E-05	5.17E-08	<MDA	<MDA	4.90E-05
Cs-137	<MDA	<MDA	1.83E-03	2.01E-06	<MDA	1.86E-06	1.83E-03
Ce-144	<MDA	5.05E-07	<MDA	<MDA	<MDA	<MDA	5.05E-07
Particulates with Half Lives Less Than Eight Days							
Rb-88	5.04E-04	7.92E-04	2.52E-04	3.13E-03	5.57E-04	5.26E-04	5.76E-03
Sr-89	3.92E-06	<MDA	<MDA	<MDA	<MDA	<MDA	3.92E-06
Y-91m	<MDA	<MDA	1.09E-05	<MDA	<MDA	<MDA	1.09E-05
Te-132	<MDA	<MDA	1.58E-07	1.07E-08	9.40E-09	<MDA	1.78E-07
Cs-138	2.71E-03	4.94E-02	5.60E-03	7.18E-03	1.18E-04	2.69E-03	6.77E-02
Alpha	<MDA	1.82E-06	<MDA	<MDA	1.62E-10	<MDA	1.82E-06

NOTES: <MDA - Less than minimum detectable activity.
(1) - Data unavailability at report time.

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TABLE 2-2

RADIOACTIVE AIRBORNE RELEASE SUMMARY
PERIOD JULY 1 TO DECEMBER 31, 1978

	July (Curies)	August (Curies)	September (Curies)	October (Curies)	November (Curies)	December (Curies)	Total (Curies)
Tritium	5.78E+00	6.55E+00	5.13E+00	7.40E+00	1.60E+01	1.48E+01	5.56E+01
Noble Gases							
Ar-41	6.09E-01	6.78E-01	1.68E-01	1.53E+00	1.07E+00	3.59E-01	4.42E+00
Kr-85	6.31E-02	4.65E-01	3.50E-01	5.81E-01	1.51E-01	1.99E-01	1.81E+00
Kr-85m	1.32E+00	2.90E+00	1.77E+00	3.56E+00	1.36E+00	9.78E-01	1.19E+01
Kr-87	1.51E+00	3.09E+00	1.09E+00	1.87E+00	8.15E-01	6.98E-01	9.08E+01
Kr-88	1.97E+00	4.55E+00	2.48E+00	4.70E+00	1.96E+00	1.60E+00	1.73E+00
Xe-131m	<MDA	<MDA	<MDA	2.46E-02	<MDA	<MDA	2.46E-02
Xe-133	9.06E-01	2.30E+00	1.15E+01	2.69E+00	1.12E+00	2.31E+00	2.09E+01
Xe-133m	8.37E-02	1.31E-01	9.30E-02	1.45E-01	5.29E-03	5.49E-02	5.13E-01
Xe-135	4.49E+00	1.13E+01	9.30E+00	1.49E+01	4.92E+00	4.84E+00	4.98E+01
Xe-135m	2.00E+00	5.28E+00	2.03E+00	2.36E+00	1.41E+00	8.51E-01	1.39E+01
Xe-138	3.19E+00	1.01E+01	3.57E+00	3.29E+00	2.11E+00	1.23E+00	2.35E+01
Particulates with Half Lives Greater Than Eight Days and Iodines							
Cr-51	<MDA	<MDA	<MDA	3.54E-09	6.37E-09	<MDA	9.91E-09
Co-58	1.72E-06	2.38E-07	2.72E-05	2.63E-10	7.32E-11	<MDA	2.92E-05
Co-60	2.15E-07	1.61E-06	2.89E-06	7.02E-05	9.29E-06	1.12E-05	9.54E-05
Sr-89	4.81E-11	4.09E-11	5.87E-11	2.33E-07	2.25E-07	2.33E-07	1.10E-06
Sr-90	9.62E-12	8.18E-12	1.17E-11	<MDA	<MDA	<MDA	2.95E-11
Cd-109	<MDA	<MDA	1.00E-05	<MDA	<MDA	<MDA	1.00E-05
Ag-110m	<MDA	<MDA	<MDA	<MDA	1.03E-07	<MDA	1.03E-07
I-131	2.23E-04	8.77E-05	3.95E-04	8.43E-04	2.04E-03	5.41E-05	3.65E-03
I-132	5.99E-05	<MDA	1.01E-03	4.88E-05	2.31E-04	1.49E-08	1.36E-03
I-133	2.14E-04	3.03E-04	2.94E-03	6.51E-04	2.66E-03	1.37E-04	6.91E-03
Cs-134	<MDA	1.35E-07	<MDA	6.42E-11	3.06E-07	<MDA	4.41E-07
I-134	<MDA	<MDA	<MDA	<MDA	4.97E-04	6.52E-08	4.97E-04
I-135	<MDA	3.21E-09	2.00E-08	1.56E-04	4.68E-04	4.18E-07	6.24E-04
Cs-137	2.85E-06	5.6. 07	7.14E-10	1.51E-07	1.71E-06	3.15E-10	5.28E-06
Ce-139	<MDA	<MDA	<MDA	4.39E-09	<MDA	6.82E-10	5.08E-09
La-140	<MDA	<MDA	<MDA	<MDA	7.04E-06	<MDA	7.04E-06
Ce-141	<MDA	<MDA	<MDA	<MDA	7.56E-11	<MDA	7.56E-11
Ce-144	6.37E-05	<MDA	<MDA	<MDA	1.06E-05	<MDA	7.43E-05
Particulates with Half Lives Less Than Eight Days							
Rb-88	1.02E-04	1.50E-02	1.54E-02	2.98E-04	1.73E-03	5.33E-04	3.31E-02
Te-132	1.32E-08	1.04E-09	1.03E-08	6.34E-09	2.44E-09	6.94E-09	4.02E-08
Cs-138	6.61E-02	1.41E-02	3.36E-05	6.73E-05	4.36E-03	1.35E-04	8.48E-02
Alpha	<MDA	9.12E-07	2.25E-06	3.78E-06	<MDA	<MDA	6.94E-06

NOTES: <MDA - Less than minimum detectable activity.
(1) - Data unavailable at report time.

921011

3.0 RADIOACTIVE SOLID WASTE SHIPMENTS

Shipments off site of solid waste for burial during this reporting period were as follows:

Date	Volume ($Ft.^3$)	Total Activity (Ci)
-79	58 (1)	276
02-10-79	85 (1)	220
02-26-79	58	14.8
03-23-79	58	8.84
04-19-79	572.5	0.389
04-20-79	1,046.5	0.529
05-11-79	1,310	0.375
05-14-79	1,672	1
05-23-79	1,672	0.1
06-26-79	58	2.1
	6,590	524

(1) Involved spent resin

4.0 NEW AND SPENT FUEL SHIPMENTS AND RECEIPTS

During this reporting period, a total of 32 new fuel assemblies were received from Westinghouse Electric Corporation for Unit 2. No new fuel assemblies were received for Unit 1.

No spent fuel assemblies were shipped from Unit 1 or Unit 2.

921012

5.0 RADIOLOGICAL ENVIRONMENTAL MONITORING

Radiological environmental monitoring conducted by Point Beach Nuclear Plant for the period January 1, 1979, through June 30, 1979, consisted of air filters, gamma dose, vegetation, lake water, well water, milk, shoreline silt, and soil samples collected and analyzed in accordance with Technical Specification 15.4.10.

The expected spring increase in airborne activity due to the Chinese airborne nuclear detonation last December did not occur. Meteorologic patterns during the mixing of atmospheric layers this spring apparently were not conducive to transporting fallout in the midwest. Throughout the period, airborne radioactivity remained at relatively low levels.

All other measurements obtained this period are well within the normal range, and no unusual results or significant departures from the normal were noted.

No.	Sample Type	Low	Average*	High	Units
	TLDs				
31	Quarterly	0.57	0.93 ± 0.50	1.33	mR/wk
	Air Filters				
155	Gross Beta	<0.01	0.045± 0.034	0.09	pCi/m^3
155	Radioiodine	---	all < 0.03	---	pCi/m^3
12	Gamma Scan:				
	Ce-144	<0.011	<0.011 ± 0.002	0.015	pCi/m^3
	Cs-137	<0.001	<0.001 ± 0.001	0.002	pCi/m^3
	Others	---	all <0.001	---	pCi/m^3
	Lake Water				
32	Gross Beta	<1.	4.7 ± 7.8	17.	pCi/l
33	Gamma Scan	---	all < 10	---	pCi/l
10	Tritium	<0.5	<0.6 ± 0.6	1.3	pCi/ml
10	Sr-89	---	all <5	---	pCi/l
10	Sr-90	<1	<1	1	pCi/l
	Well Water				
2	Gross Beta	<1	<2	3	pCi/l
2	Gamma Scan	---	both <10	---	pCi/l
2	Tritium	---	both <0.5	---	pCi/ml
2	Sr-89	---	both <5	---	pCi/l
2	Sr-90	---	both <1	---	pCi/l
	Vegetation				
8	Gross Beta	2	5.5 ± 9.7	15	pCi/g (wet)
8	Gamma Scan	---	all <1	---	pCi/g (wet)

921013

No.	Sample Type	Low	Average*	High	Units
	Soil				
8	Gross Beta	4	11.6 ± 25.[illegible]	37	pCi/g (dry)
8	Gamma Scan:				
	Cs-137	<1	<1.6 ± 1.4	5	pCi/g (dry)
	Others	---	all <1	---	pCi/g (dry)
	Algae				
2	Gross Beta	3	4.5	6	pCi/g (wet)
2	Gamma Scan	---	both <1	---	pCi/g (wet)
	Fish				
5	Gross Beta	<1	1 ± 1	2	pCi/g (wet)
5	Gamma Scan	---	all <1	---	pCi/g (wet)
	Shoreline Silt				
5	Gross Beta	<1	1	1	pCi/g (wet)
5	Gamma Scan	---	all <1	---	pCi/g (wet)
	Milk				
18	Radioiodine	---	all <0.5	---	pCi/l
18	Sr-89	---	all <5	---	pCi/l
18	Sr-90	<1	2.4 ± 2.4	5	pCi/l
18	Gamma Scan	---	all <5	---	pCi/l

* 95% confidence interval given when applicable. Whenever samples below the detection limit are included in the computation of the average, the average is shown as a "less than" value.

6.0 NON-RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

In accordance with Amendment numbers 29 and 33 to Facility Operating Licenses DPR-24 and DPR-27 respectively, dated November 4, 1977, the Environmental Technical Specifications for the Point Beach Nuclear Plant Units 1 and 2 were modified to allow temporary suspension of the non-radiological environmental monitoring program pending NRC review of the summary report of the five years of monitoring. As a result, the semiannual report specified by item 16.6.2.a of the Technical Specification is not applicable.

921014

7.0 NON-RADIOACTIVE CHEMICAL RELEASES

7.1 Scheduled Chemical Waste Releases

Scheduled chemical waste releases to the circulating water system for the period of 01-01-79 to 06-30-79, included 3,283,864 gallons of neutralized clear water waste. The waste water contained 558.8 pounds of suspended solids and 169,867 pounds of dissolved solids.* When averaged over the reporting period, these discharges represented 46.3% of the Technical Specification limit for dissolved solids and 0.315% of the Technical Specification limit for suspended solids.**

The concentration increases of chemical waste in the circulating water system during the period of chemical releases ranged from 0.062 to 8.47 ppm dissolved solids and from 2.86E-04 to 8.06E-02 ppm suspended solids.**

Plant chemical records indicated that the following amounts of chemicals were released in the form of neutralized waste:

Sodium	55,860 pounds
Sulfate	108,903 pounds

* Chemical releases calculated are based upon neutralized tank analysis prior to discharge.

** Based on calculations during times of actual discharges.

7.2 Miscellaneous Chemical Waste Releases

Miscellaneous chemical waste releases to the circulating water system from the retention pond for the period of 01-01-79 to 06-30-79 included 14,200,000 gallons of clear water waste. The waste water contained 2,930 pounds of suspended solids and 113,000 pounds of dissolved solids.* When averaged over the reporting period, these discharges were insignificant with respect to Technical Specification limits.

Retention pond analysis and plant chemical records indicate that the following chemicals were released in the form of clear water waste from the retention pond.

Sodium	5,571 pounds
Chloride	8,590 pounds
Phosphate	115.7 pounds

The balance of the dissolved solids were in the form of soluble calcium and magnesium compounds resulting from the plant makeup water cold lime softening process.

* Chemical release calculations are based on retention pond analysis during the period 01-01-79 to 06-30-79.

921015

8.0 CIRCULATING WATER SYSTEM OPERATIONS

The circulating water system operation during this reporting period for periods of plant operation is described in Table 8-1.

9.0 LEAK TESTING OF RADIOACTIVE SOURCES

During the reporting period, all applicable sealed radioactive sources were leak tested according to Technical Specification requirement 15.4.12. Results of the leak testing showed no removable contamination greater than 0.005 micro-Curies from sealed radioactive sources.

921016

TABLE 8-1

CIRCULATING WATER SYSTEM OPERATION

		January	February	March	April	May	June
Average Volume Cooling Water Discharge, Million Gal/Day	UNIT 1	315.2	322.7	325.6	449.7	593.0	574.6
	UNIT 2	323.2	324.4	344.9	438.4	607.3	583.3
Average Cooling Water Intake Temperature Degrees F	UNIT 1	49.5	48.6	37.7	42.5	48.6	50.5
	UNIT 2	50.8	50.2	37.6	42.8	48.3	50.3
Average Cooling Water Discharge Temperature Degrees F	UNIT 1	80.3	78.8	59.7(2)	63.6	65.0	67.3
	UNIT 2	80.9	80.4	63.3(1)	62.4(1)	63.9	66.4
Average Ambient Temperature Degrees F	UNIT 1	32.6	35.5	35.3	39.0	45.7	48.9
	UNIT 2	(3)	(3)	(3)	(3)	(3)	(3)

(1) Unit 2 was shut down for refueling from March 23, 1979, to April 13, 1979.
(2) Unit 1 was shut down for steam generator maintenance from March 10, 1979, to March 19, 1979.
(3) Instrumentation out-of-service.

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