

WISCONSIN ELECTRIC

POWER COMPANY

POINT BEACH NUCLEAR PLANT

UNIT NOS. 1 AND 2

SEMIANNUAL

MONITORING REPORT

January 1, 1984 through June 30, 1984

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U.S. Nuclear Regulatory Commission
Docket Nos. 50-266 and 50-301
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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 0.3679 Curies which included 0.3479 Curies of processed radioactive waste and primary coolant system letdown, 0.0049 Curies of Unit 1 steam generator blowdown and 0.0151 Curies of Unit 2 steam generator blowdown. There was no detectable activity in retention pond effluent (other than tritium). The total tritium release for this reporting period was 1031.97 Curies, which included 1031.80 Curies of processed radioactive waste and primary coolant system letdown, 0.000 Curies of Unit 1 steam generator blowdown, 0.163 Curies of Unit 2 steam generator blowdown, and 0.007 Curies of retention pond effluent. All radioactive liquid releases to Lake Michigan were made through the circulating water discharge.

1.1 Additions to Semiannual Monitor Report July 1, 1983 through December 31, 1983

	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Total (Ci)</u>
Total Activity Released, Ci				
Gross Alpha	≤MDA	≤MDA	≤MDA	2.81E-07
Average Diluted Discharge Concentration, μCi/cc				
Gross Alpha	≤MDA	≤MDA	≤MDA	
%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, 1983, through December 31, 1983.

	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>(6 Month Adjusted Total (Ci))</u>
Sr-89	1.37E-04	≤MDA	≤MDA	2.36E-04
Sr-90	1.11E-05	1.65E-05	≤MDA	9.98E-05

TABLE 1-1

RADIOACTIVE LIQUID CIRCULATING WATER RELEASE SUMMARY
PERIOD OF JANUARY 1, 1984 TO JUNE 30, 1984

	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>Total</u>
<u>Total Activity Released, (Ci)</u>							
Gamma Scan	1.90E-02	2.23E-01	3.18E-03	3.58E-02	2.22E-02	6.40E-02	3.67E-01
Gross Alpha	8.54E-06	1.94E-03	1.48E-05	(1)	(1)	(1)	(1)
Tritium	6.75E+01	4.33E+02	9.04E+01	1.60E+02	1.75E+02	1.06E+02	1.03E+03
<u>Total Volumes Released (Gal)</u>							
Processed Waste	9.98E+04	3.34E+05	7.60E+04	1.44E+05	1.07E+05	8.30E+04	8.44E+05
Steam Generator Blowdown, U1	ΣMDA	1.01E+03	ΣMDA	1.97E+06	2.67E+06	2.54E+06	7.18E+06
Steam Generator Blowdown, U2	2.99E+06	2.41E+06	2.61E+06	2.56E+06	3.06E+06	3.05E+06	1.67E+07
Retention Pond	2.41E+05	3.08E+06	2.49E+06	2.85E+06	2.50E+06	2.20E+06	1.34E+07
Total	3.33E+06	5.82E+06	5.18E+06	7.53E+06	8.34E+06	7.87E+06	3.81E+07
<u>Volume of Dilution Water, (cc)</u>							
	3.46E+13	3.26E+13	3.39E+13	5.48E+13	5.16E+13	5.68E+13	2.64E+14
<u>Average Diluted Discharge Concentration (μCi/cc)-</u>							
Gross Gamma	5.49E-10	6.85E-09	9.36E-11	6.53E-10	4.30E-10	1.13E-09	
% MPC	6.82E-03	4.82E-01	6.55E-04	1.19E-02	3.77E-03	2.99E-02	
Gross Alpha	2.47E-13	5.95E-11	4.37E-13	(1)	(1)	(1)	
% MPC	8.24E-04	1.99E-01	1.46E-03	(1)	(1)	(1)	
Tritium	1.95E-06	1.33E-05	2.67E-06	2.92E-06	3.39E-06	1.87E-06	
% MPC	6.51E-02	4.44E-01	8.89E-02	9.71E-02	1.13E-01	6.21E-02	
<u>Maximum Discharge Concentration During Release Period, (μCi/cc)</u>							
Gross Gamma	1.10E-08	8.58E-08	6.87E-09	1.57E-08	6.47E-09	1.46E-08	
Tritium	3.49E-05	9.47E-05	1.35E-04	1.26E-04	2.09E-04	6.83E-05	

(1) Data unavailable at time of report.

TABLE 1-2

ISOTOPIC COMPOSITION OF CIRCULATING WATER DISCHARGES
PERIOD OF JANUARY 1, 1984 TO JUNE 30, 1984

<u>Nuclides Released</u>	<u>Jan (Curies)</u>	<u>Feb (Curies)</u>	<u>March (Curies)</u>	<u>April (Curies)</u>	<u>May (Curies)</u>	<u>June (Curies)</u>	<u>Total (Curies)</u>
Tritium	6.75E+01	4.33E+02	9.04E+01	1.60E+02	1.75E+02	1.06E+02	1.03E+03
I-131	≤MDA	≤MDA	≤MDA	1.33E-04	1.15E-04	≤MDA	2.48E-04
I-133	≤MDA	≤MDA	≤MDA	≤MDA	3.00E-05	≤MDA	3.00E-05
Xe-133	≤MDA	≤MDA	≤MDA	1.33E-02	8.73E-05	4.91E-04	1.39E-02
Kr-85M	≤MDA	≤MDA	≤MDA	≤MDA	1.88E-06	≤MDA	1.88E-06
Xe-135	≤MDA	≤MDA	≤MDA	5.84E-04	≤MDA	≤MDA	5.84E-04
Xe-135M	≤MDA	≤MDA	≤MDA	2.90E-04	≤MDA	≤MDA	2.90E-04
Kr-85	≤MDA	≤MDA	≤MDA	≤MDA	≤MDA	4.82E-02	4.82E-02
Co-57	≤MDA	≤MDA	≤MDA	≤MDA	4.97E-06	≤MDA	4.97E-06
Ce-144	3.98E-05	6.54E-02	≤MDA	2.79E-04	≤MDA	2.61E-04	6.60E-02
Ce-141	≤MDA	7.77E-03	≤MDA	≤MDA	≤MDA	≤MDA	7.77E-03
Cr-51	≤MDA	1.20E-02	≤MDA	≤MDA	≤MDA	1.43E-04	1.21E-02
Sn-113	≤MDA	1.12E-02	≤MDA	≤MDA	≤MDA	≤MDA	1.12E-02
Sb-125	1.31E-05	≤MDA	≤MDA	3.58E-04	≤MDA	4.78E-04	2.15E-03
F-18	3.74E-05	≤MDA	≤MDA	≤MDA	≤MDA	≤MDA	3.74E-05
Ru-103	≤MDA	8.64E-03	≤MDA	≤MDA	≤MDA	≤MDA	8.64E-03
Y-91M	≤MDA	≤MDA	≤MDA	≤MDA	9.40E-05	≤MDA	9.40E-05
Cs-134	4.91E-05	4.35E-03	1.13E-03	5.67E-03	7.16E-03	1.98E-03	2.52E-02
Ru-106	≤MDA	2.01E-02	≤MDA	≤MDA	≤MDA	≤MDA	3.01E-02
Ag-110M	4.72E-05	2.71E-04	7.70E-06	2.07E-04	≤MDA	1.81E-05	5.51E-04
Cs-137	8.81E-03	8.72E-03	1.80E-03	1.15E-02	1.35E-02	4.23E-03	4.86E-02
Zr-95	≤MDA	5.92E-03	≤MDA	≤MDA	≤MDA	7.15E-05	5.99E-03
Zr-97	≤MDA	1.05E-03	≤MDA	≤MDA	≤MDA	≤MDA	1.05E-03
Nb-95	≤MDA	1.05E-02	4.29E-06	1.36E-04	3.61E-05	1.68E-04	1.08E-02
Co-58	1.54E-03	1.80E-02	5.13E-05	6.37E-04	1.91E-04	3.47E-04	2.08E-02
Mn-54	5.57E-05	9.62E-04	5.45E-06	1.24E-04	1.56E-05	1.57E-04	1.32E-03
Co-60	2.24E-03	3.81E-02	1.68E-04	2.56E-03	9.77E-04	3.33E-03	4.74E-02
Na-24	≤MDA	≤MDA	≤MDA	≤MDA	≤MDA	4.12E-03	4.12E-03
Nb-97	≤MDA	2.58E-04	8.12E-06	1.72E-05	≤MDA	7.03E-06	2.90E-04
Sr-89	2.00E-05	1.32E-05	5.30E-06	(1)	(1)	(1)	(1)
Sr-90	2.52E-05	1.95E-05	2.91E-06	(1)	(1)	(1)	(1)
TOTAL	1.90E-02	2.23E-01	3.18E-03	3.58E-02	2.22E-02	6.40E-02	3.67E-01

NOTE: (1) Data Unavailable at time of report.

1.3 Additions to the Semi-Annual Report, July 1 through December 31, 1983.

The following data which was not available at the time of the report preparation should be added to Table 1-3 in Section 1.0 of the Semi-Annual Monitoring Report covering the period July 1, 1983, through December 31, 1983.

TABLE 1-3
SUBSOIL SYSTEM DRAINS
TRITIUM SUMMARY

JULY 1, 1983 THROUGH DECEMBER 31, 1983

	<u>LOCATION</u>				<u>TOTALS</u>
	<u>S-1</u>	<u>S-3</u>	<u>S-9</u>	<u>S-10</u>	
<u>Third Quarter</u>					
H ³ (μCi/cc)	6.95E-07	1.17E-06	No Sample	SMDA	-
Aver. Flow, gpd	7816	5458	No Flow	21037	-
<u>Fourth Quarter</u>					
H ³ (μCi/cc)	1.12E-06	1.73E-06	No Sample	2.70E-07	-
Aver. Flow, gpd	94648	56600	No Flow	417	-
<u>Semiannual Totals</u>					
Total Released, Ci	3.24E-02	3.13E-02	No Sample	1.01E-03	6.47E-02
Total flow, gal	9.43E+06	5.71E+06	No Flow	1.97E+06	1.71E+07

TABLE 1-3
SUBSOIL SYSTEM DRAINS
TRITIUM SUMMARY

JANUARY THROUGH JUNE 1984

	<u>LOCATION</u>				<u>TOTALS</u>
	<u>S-1</u>	<u>S-3</u>	<u>S-9</u>	<u>S-10</u>	
<u>First Quarter</u>					
H ³ (μCi/cc)	1.61E-06	5.70E-07	≤MDA	2.08E-06	-
Aver. Flow, gpd	23895	5365	1470	6350	-
<u>Second Quarter</u>					
H ³ (μCi/cc)	(1)	(1)	(1)	(1)	-
Aver. Flow, gpd	4668	4150	1424	16727	-
<u>Semiannual Totals</u>					
Total Released, Ci	(1)	(1)	(1)	(1)	
Total flow, gal	5.20E+06	1.73E+06	2.61E+05	4.20E+06	

(1) Data unavailable at time of report.

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 exhaust and turbine building ventilation exhaust.

There were four decay tank releases during this report period.

2.1 Additions to the Semiannual Report, July 1, 1983, through December 31, 1983

The following data which was not available at the time of the report preparation should be added to Table 2-2 in Section 2.0 of the Semiannual Monitoring Report covering the period July 1, 1983, through December 31, 1983.

	<u>October</u>	<u>November</u>	<u>December</u>	<u>(6 Month Adjusted Total, Ci</u>
Sr-89	≤MDA	≤MDA	≤MDA	≤MDA
Sr-90	≤MDA	≤MDA	≤MDA	≤MDA

TABLE 2-1

RADIOACTIVE AIRBORNE RELEASE SUMMARY
PERIOD OF JANUARY 1, 1984 TO JUNE 30, 1984

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>Total</u>
Total Curies Released (Excluding Tritium)	3.94E+00	2.83E+00	6.51E+00	7.59E+00	1.52E+00	8.35E+00	3.07E+01
Total Xe-133 Equivalent Curies Released (1)	4.13E+01	3.71E+01	5.38E+01	1.24E+02	1.54E+02	7.17E+01	4.82E+02
Average Release Rate (Curies/Second) (2)	1.54E-05	1.48E-05	2.01E-05	4.80E-05	5.75E-05	2.77E-05	
Percent of Annual Technical Specification Limits (3)	7.71E-03	7.41E-03	1.00E-02	2.40E-02	2.87E-02	1.38E-02	
Maximum Hourly Average Release Rate (Curies/Second) (4)	3.54E-05	4.79E-04	5.08E-03	1.36E-03	2.30E-03	1.19E-04	
Monthly Average Site Boundary Concentration (μ Ci/cc) (2)	2.31E-11	2.22E-11	3.01E-11	7.19E-11	8.62E-11	4.15E-11	

(1) All gaseous particulate releases are converted to "Xe-133 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:1.5E-06 sec./m³. Maximum Technical Specification limits are 2.0 Ci/sec. Xe-133 based on X/Q:1.5E-06 sec/m³.

(4) Expressed as Xe-133 equivalent.

TABLE 2-2
 RADIOACTIVE AIRBORNE RELEASE SUMMARY
 PERIOD OF JANUARY 1, 1984 TO JUNE 30, 1984

Nuclides Released	January (Curies)	February (Curies)	March (Curies)	April (Curies)	May (Curies)	June (Curies)	Total (Curies)
Tritium	2.70E+01	2.79E+01	2.26E+02	1.75E+01	1.52E+01	7.63E+00	2.21E+02
Noble Gases							
Xe-133	1.33E+00	3.83E-01	4.66E-01	1.03E+00	4.76E-01	9.62E-01	4.65E+00
Kr-85M	1.44E-01	1.15E-01	1.98E-01	2.02E-01	3.19E-02	1.73E-01	8.64E-01
Kr-88	2.70E-01	2.52E-01	3.99E-01	4.45E-01	6.26E-02	3.79E-01	1.81E+00
Xe-133M	5.22E-02	3.41E-02	3.61E-02	6.82E-02	3.70E-02	5.65E-02	2.84E-01
Xe-135	8.71E-01	6.60E-01	1.05E+00	1.04E+00	1.92E-01	8.49E-01	4.66E+00
Xe-138	3.95E-01	5.86E-01	1.04E+00	1.50E+00	1.39E-01	1.34E+00	5.14E+00
Kr-87	1.49E-01	1.83E-01	2.84E-01	3.53E-01	4.78E-02	3.15E-01	1.33E+00
Xe-135M	2.32E-01	2.28E-01	3.69E-01	4.59E-01	4.65E-02	4.29E-01	1.76E+00
Ar-41	4.86E-02	4.19E-02	1.77E-01	2.82E-01	2.62E-02	8.63E-02	6.62E-01
Kr-85	4.54E-01	3.51E-01	2.36E+00	2.21E+00	4.63E-01	3.76E+00	9.60E+00
Particulates with half-lives less than eight days							
Rb-88	1.01E-06	≤MDA	≤MDA	≤MDA	≤MDA	≤MDA	1.01E-06
Particulates with half-lives greater than eight days and iodines							
I-131	7.76E-06	3.01E-06	2.93E-06	1.07E-05	4.26E-05	1.06E-05	7.76E-05
I-132	≤MDA	≤MDA	2.55E-07	4.93E-05	3.86E-06	≤MDA	5.34E-05
I-133	2.32E-06	6.44E-07	4.32E-06	1.70E-05	1.11E-04	1.19E-05	1.47E-04
Sr-89	≤MDA	≤MDA	≤MDA	(1)	(1)	(1)	(1)
Sr-90	≤MDA	≤MDA	≤MDA	(1)	(1)	(1)	(1)
Cd-109	≤MDA	≤MDA	≤MDA	1.13E-09	1.27E-06	5.83E-05	5.96E-05
Sb-125	≤MDA	4.14E-07	≤MDA	6.95E-10	≤MDA	≤MDA	4.14E-07
Ru-103	5.96E-08	≤MDA	≤MDA	≤MDA	3.11E-08	≤MDA	9.07E-08
Cs-134	5.09E-07	6.03E-08	2.06E-07	7.70E-08	3.91E-08	≤MDA	8.91E-07
Cs-137	6.79E-06	1.09E-05	1.05E-05	1.09E-06	2.72E-07	2.61E-07	2.98E-05
Co-58	1.77E-06	2.23E-06	2.35E-06	7.64E-10	≤MDA	≤MDA	6.35E-06
Mn-54	8.17E-08	2.54E-08	8.39E-08	≤MDA	≤MDA	≤MDA	1.91E-07
Co-60	3.82E-06	9.80E-06	9.92E-06	1.05E-06	6.89E-07	5.13E-07	2.58E-05
Alpha	7.02E-11	4.04E-08	≤MDA	3.17E-06	≤MDA	≤MDA	3.21E-06

NOTE: (1) Data Unavailable at report time.

3.0 RADIOACTIVE SOLID WASTE SHIPMENTS

Shipments offsite of solid waste for burial during this reporting period were as follows.

<u>Date</u>	<u>Volume (Ft³)</u>	<u>Total Activity (Ci)</u>
01-09-84	195.0	20.000
01-11-84	84.0	98.300 (1)
01-13-84	1749.0	0.247
01-17-84	183.0	42.300
01-18-84	1265.0	0.139
01-21-84	183.0	162.600
01-26-84	1718.7	0.258
01-27-84	183.0	165.2
02-01-84	85.0	102.800 (1)
02-02-84	1797.0	0.271
02-10-84	1792.0	0.385
02-22-84	1212.0	0.433
03-02-84	2280.0	0.086
03-12-84	1698.0	0.643
03-14-84	1896.0	0.071
03-30-84	1530.5	0.129
05-17-84	1324.8	0.179
05-25-84	183.0	5.127
06-07-84	126.0	482.800 (1)
06-11-84	183.0	6.030
06-11-84	183.0	5.690
06-13-84	183.0	0.548
06-14-84	183.0	0.548
06-15-84	183.0	0.396
06-25-84	366.0	3.740
06-28-84	<u>135.0</u>	<u>1.561</u>
TOTALS:	20901.0 (ft ³)	1100.481 (Ci)

(1) Involved spent resin.

4.0 NEW & SPENT FUEL SHIPMENTS AND RECEIPTS

During this reporting period, a total of 36 new fuel assemblies were received from Westinghouse Electric Corporation for Unit 1. The new fuel assemblies received for Unit 1 were used for the Spring, 1984, refueling.

There were 102 spent fuel assemblies received from the West Valley, New York and Norris, Illinois storage facilities during this reporting period.

5.0 RADIOLOGICAL ENVIRONMENTAL MONITORING

Radiological environmental monitoring conducted by Point Beach Nuclear Plant from January 1, 1984, through June 30, 1984, consisted of air filters, gamma dose, vegetation, lake water, well water, milk, shoreline silt, soil, algae, and fish samples collected and analyzed in accordance with Technical Specification 15.4.10.

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

<u>No.</u>	<u>Sample Type</u>	<u>Low</u>	<u>Average*</u>	<u>High</u>	<u>Units</u>
<u>TLDs</u>					
41	Quarterly	0.70	1.06 ± 0.36	1.45	mR/wk
<u>Air Filters</u>					
149	Gross Beta	0.01	0.02 ± 0.02	0.04	pCi/m ³
149	Radioiodine	---	all <0.03	---	pCi/m ³
12	Gamma Scan	---	all <0.01	---	pCi/m ³
<u>Milk</u>					
18	Radioiodine	---	all <0.5	---	pCi/l
18	Sr-89	---	all <5.0	---	pCi/l
18	Sr-90	0.9	1.5 ± 0.9	2.5	pCi/l
18	Gamma Scan	---	all <5	---	pCi/l
<u>Lake Water</u>					
30	Gross Beta	2.1	3.8 ± 2.8	7.6	pCi/l
30	Gamma Scan	---	all <10	---	pCi/l
10 ¹	Tritium	<0.5	<0.6 ± 0.4	1.02	pCi/ml
10 ¹	Sr-89	---	all <	---	pCi/l
10 ¹	Sr-90	<1	<1.1 ± 0.1	1.1	pCi/l
<u>Well Water</u>					
2	Gross Beta	<0.8	<2.9	5.0	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
<u>Vegetation</u>					
8	Gross Beta	7.4	10.1 ± 6.9	16.7	pCi/g (dry)
8	Gamma Scan	---	all <1	---	pCi/g (dry)

<u>No.</u>	<u>Sample Type</u>	<u>Low</u>	<u>Average*</u>	<u>High</u>	<u>Units</u>
<u>Soil</u>					
8	Gross Beta	16.9	24.3 ± 10.9	29.9	pCi/g (dry)
8	Gamma Scan:				
	Cs-137	---	all <1	---	pCi/g (dry)
	Others	---	all <1	---	pCi/g (dry)
<u>Algae</u>					
2	Gross Beta	7.9	8.3 ± 6.3	8.6	pCi/g (dry)
2	Gamma Scan	---	both <5	---	pCi/g (dry)
<u>Fish</u>					
6	Gross Beta	9.9	16.7 ± 12.6	24.0	pCi/g (dry)
6	Gamma Scan	---	all <1	---	pCi/g (dry)
<u>Shoreline Sediment</u>					
5	Gross Beta	5.4	12.1 ± 18.7	23.9	pCi/g (dry)
5	Gamma Scan	--	all <1	---	pCi/g (dry)

*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.

¹Only 5 analyses completed at this time.

6.0 NON-RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

In accordance with Amendment Nos. 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.

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 January 1, 1984, to June 30, 1984, included 5,156,100 gallons of neutralized clear water waste. The waste water contained 503 pounds of suspended solids and 302,586 pounds of dissolved solids.*

The concentration increases of chemical waste in the circulating water system during the period of chemical releases ranged from 0.018 to 19.41 ppm dissolved solids and from 0.000 to 0.038 ppm suspended solids.**

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

Sodium	79,252 pounds
Sulfate	202,546 pounds

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

** Based on calculations during times of actual discharges for each individual neutralizing tank.

7.2 Miscellaneous Chemical Waste Releases

Miscellaneous chemical waste releases to the circulating water system from the retention pond for the period of January 1, 1984 to June 30, 1984, including 13,370,000 gallons of clear water waste. The waste water contained 828 pounds of suspended solids and 47,055 pounds of dissolved solids.*

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	9,323 pounds
Chloride	14,388 pounds
Phosphate	306 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 analyses during the period January 1, 1984 to June 30, 1984.

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. Leak test results were all $<0.005 \mu\text{Ci}$.

TABLE 8-1

CIRCULATING WATER SYSTEM OPERATION

		<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
Average Volume Cooling Water Discharge, Million Gal/Day	UNIT 1	(1)	(1)	(1)	472.6(1)	509.8	347.1
	UNIT 2	294.7	269.9	288.2	482.2	450.9	331.9
Average Cooling Water Intake Temperature Degrees F	UNIT 1	(1)	(1)	(1)	38.5(1)	42.1	49.6
	UNIT 2	37.7	36.1	35.4	37.5	42.0	49.7
Average Cooling Water Discharge Temperature Degrees F	UNIT 1	(1)	(1)	(1)	55.3(1)	60.7	66.7
	UNIT 2	69.4	69.0	69.5	57.1	60.9	67.3
Average Ambient Lake Temperature Degrees F	UNIT 1	(2)	(2)	(2)	(2)	(2)	(2)
	UNIT 2	37.1	36.7	35.4	38.3	42.1	49.6

(1) Unit 1 shutdown for refueling and steam generator replacement from 10-01-83 to 04-08-84.

(2) Instrumentation out of service.



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August 24, 1984

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Dear Mr. Denton:

DOCKET NOS. 50-266 AND 50-301
SEMIANNUAL MONITORING REPORT
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed herewith is the Semiannual Monitoring Report for the Point Beach Nuclear Plant, Units 1 and 2, for the period from January 1, 1984 to June 30, 1984. This report is submitted in accordance with Technical Specification 15.6.9.3.C and contains information regarding plant releases, new and spent fuel receipts, environmental radiological monitoring, and leak testing of sources during this reporting period. We have enclosed forty copies of this report for your use.

Very truly yours,

Vice President-Nuclear Power

C. W. Fay

Enclosure

Copy to NRC Resident Inspector

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