



**Consumers
Power
Company**

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

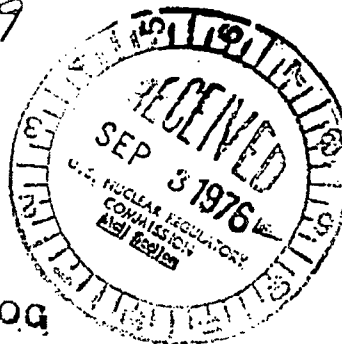
August 31, 1976

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Director of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

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DOCKET 50-155, LICENSE DPR-6 -
BIG ROCK POINT PLANT

Attached are the radioactive effluent summaries for the Big Rock Point Plant for the period of January 1, 1976 through June 30, 1976. These summaries are submitted to fulfill the reporting requirements of 10 CFR 50.36.a(2).

Ralph B. Sewell (Signed)

Ralph B. Sewell
Nuclear Licensing Administrator

CC: JGKepler
USNRC

8971

CONSUMERS POWER COMPANY
BIG ROCK POINT PLANT, DOCKET NO 50-155
ATMOSPHERIC RELEASE OF RADIOACTIVE MATERIAL

1976

	UNITS	JANUARY	FEBRUARY	MARCH	1st QUARTER	APRIL	MAY	JUNE	2nd QUARTER	SIX-MONTH TOTAL
Total Noble Gases	Curies	7.52E-03	-----	-----	7.52E-03	-----	-----	-----	-----	7.52E-03
Total Halogens		1.75E-03	4.28E-03	1.77E-04	6.21E-03	8.23E-06	-----	-----	8.23E-06	6.22E-03
Total Particulates (S, Y)		1.96E-03	3.82E-04	3.52E-04	2.70E-03	6.16E-04	2.72E-04	2.55E-04	1.14E-03	2.84E-03
Total Tritium		9.36E-01	1.42E-01	1.53E-01	1.23E+00	1.48E-01	1.53E-01	1.48E-01	4.49E-01	1.68E+00
Total Particulates - Gross Alpha		5.34E-07	2.24E-07	1.39E-07	8.97E-07	2.95E-07	2.55E-07	3.61E-07	9.11E-07	1.81E-06
Maximum Noble Gas Release Rate	μCi/S	4.17E+03	-----	-----	4.17E+03	-----	-----	-----	-----	4.17E+03
Percent of Technical Specifications	%									
Noble Gases		2.81E-01	-----	-----	9.56E-04	-----	-----	-----	-----	4.78E-04
Halogens		4.30E-02	1.41E-01	5.49E-03	6.15E-02	2.65E-04	-----	-----	8.72E-05	3.08E-02
Particulates (S, Y)		3.63E-02	5.86E-03	8.13E-03	1.70E-02	1.37E-02	2.68E-03	3.39E-03	6.53E-03	1.18E-02
Isotopes Released	Curies									
Halogens										
I-131		1.26E-03	4.23E-03	1.77E-04	5.67E-03	8.23E-06	-----	-----	8.23E-06	5.67E-03
I-133		4.95E-04	5.20E-05	-----	5.47E-04	-----	-----	-----	-----	5.47E-04
Particulates										
Cs-134		4.54E-05	1.82E-05	-----	6.36E-05	8.19E-07	1.72E-05	1.56E-05	3.36E-05	9.72E-05
Cs-137		9.22E-05	4.53E-05	-----	1.37E-04	7.68E-05	1.16E-04	8.38E-05	2.77E-04	4.14E-04
BaLa-140		7.01E-04	-----	-----	7.01E-04	-----	-----	-----	-----	-----
Co-60		8.55E-05	2.35E-04	1.35E-04	4.55E-04	1.92E-04	1.19E-04	1.06E-04	4.17E-04	8.73E-04
Net Unidentified Beta		1.04E-03	8.43E-05	2.16E-04	1.34E-03	3.45E-04	1.89E-05	4.94E-05	4.13E-04	1.75E-03
Noble Gases										
Xe-138		1.11E+03	-----	-----	1.11E+03	-----	-----	-----	-----	1.11E+03
Kr-87		1.19E+03	-----	-----	1.19E+03	-----	-----	-----	-----	1.19E+03
Kr-88		1.08E+03	-----	-----	1.08E+03	-----	-----	-----	-----	1.08E+03
Kr-85m		4.17E+02	-----	-----	4.17E+02	-----	-----	-----	-----	4.17E+02
Xe-135		1.69E+03	-----	-----	1.69E+03	-----	-----	-----	-----	1.69E+03
Xe-133		1.13E+03	-----	-----	1.13E+03	-----	-----	-----	-----	1.13E+03
Xe-143		-----	-----	-----	-----	-----	-----	-----	-----	-----
Kr-94		-----	-----	-----	-----	-----	-----	-----	-----	-----
Kr-93		-----	-----	-----	-----	-----	-----	-----	-----	-----
Xe-141		-----	-----	-----	-----	-----	-----	-----	-----	-----
Kr-92		-----	-----	-----	-----	-----	-----	-----	-----	-----
Kr-91		<1	-----	-----	<1	-----	-----	-----	-----	<1
Xe-140		3.07E+00	-----	-----	3.07E+00	-----	-----	-----	-----	3.07E+00
Kr-90		3.55E+01	-----	-----	3.55E+01	-----	-----	-----	-----	3.55E+01
Xe-139		5.28E+01	-----	-----	5.28E+01	-----	-----	-----	-----	5.28E+01
Kr-89		7.93E+01	-----	-----	7.93E+01	-----	-----	-----	-----	7.93E+01
Xe-137		1.39E+02	-----	-----	1.39E+02	-----	-----	-----	-----	1.39E+02
Xe-135m		3.05E+02	-----	-----	3.05E+02	-----	-----	-----	-----	3.05E+02
Kr-83m		2.09E+02	-----	-----	2.09E+02	-----	-----	-----	-----	2.09E+02
Xe-133m		3.78E+01	-----	-----	3.78E+01	-----	-----	-----	-----	3.78E+01
Xe-131m		5.08E+00	-----	-----	5.08E+00	-----	-----	-----	-----	5.08E+00
Kr-85		3.31E+01	-----	-----	3.31E+01	-----	-----	-----	-----	3.31E+01
R-13		6.67E+00	-----	-----	6.67E+00	-----	-----	-----	-----	6.67E+00

1976

Consumers Power Company
Big Rock Point Plant, Docket No 50-155
Radioactive Liquid Releases

	UNITS	JANUARY	FEBRUARY	MARCH	FIRST QUARTER	APRIL	MAY	JUNE	SECOND QUARTER	SIX-MONTH TOTAL
Total Radioactivity Released (Except Tritium, Dissolved Gases and Alpha)	Curies	2.54E-02	1.13E-01	5.65E-02	1.95E-01	1.56E-01	5.64E-02	3.06E-01	5.18E-01	7.12E-01
Volume of Waste Discharged	Liters	1.42E+04	8.13E+04	7.23E+04	1.68E+05	5.94E+04	7.22E+04	5.94E+04	1.91E+05	3.59E+05
Average Concentration of Waste Prior to Discharge	µCi/ml	1.79E-03	1.39E-03	7.82E-04	1.16E-03	2.63E-03	7.81E-04	5.14E-03	2.71E-03	1.98E-03
Volume of Circulating Discharge Water	Liters	8.43E+09	3.83E+09	2.56E+09	1.48E+10	8.78E+08	1.90E+09	7.76E+09	1.05E+10	2.54E+10
Average Concentration Released (Except Tritium, Dissolved Gases and Alpha)	µCi/ml	3.01E-09	2.95E-08	2.21E-08	1.32E-08	1.78E-07	2.97E-08	3.94E-08	4.93E-08	2.80E-08
Maximum Concentration (Except Tritium, Dissolved Gases and Alpha)	µCi/ml	3.41E-07	7.79E-07	1.07E-06	1.07E-06	1.63E-06	8.32E-07	6.20E-06	6.20E-06	6.20E-06
Percent of Applicable Limits	%	4.69E-02	6.13E-01	3.43E-01	2.45E-01	1.21E+00	2.09E-01	2.39E+00 *	2.15E+00 *	2.08E+00 *
Tritium Released	Curies	1.04E-03	5.20E-02	1.45E-02	6.75E-02	1.84E-01	4.84E-01	8.79E-01	1.55E+00	1.61E+00
Average Tritium Concentration Released	µCi/ml	1.23E-10	1.36E-08	5.65E-09	4.56E-09	2.10E-07	2.55E-07	1.13E-07	1.48E-07	6.34E-08
Total Gross Alpha Released	Curies	7.68E-05	7.84E-06	8.05E-06	9.27E-05	6.74E-06	4.34E-06	1.01E-05	2.12E-05	1.14E-04
Average Alpha Concentration	µCi/ml	9.11E-12	2.05E-12	3.14E-12	6.26E-12	7.68E-12	2.28E-12	1.30E-12	2.02E-12	4.49E-12
Isotopes	Curies									
Cs-134-----		2.01E-03	1.34E-02	4.19E-03	1.96E-02	2.84E-02	9.26E-03	3.36E-02	7.13E-02	9.09E-02
Cs-137-----		8.31E-03	2.51E-02	7.70E-03	4.11E-02	8.36E-02	3.04E-02	1.90E-01	3.04E-01	3.45E-01
Mn-54-----		7.91E-04	1.71E-03	4.36E-03	6.86E-03	4.07E-03	2.32E-03	3.79E-03	1.02E-02	1.70E-02
Zn-65-----		4.63E-04	2.85E-04	1.03E-03	1.78E-03	1.47E-03	7.06E-04	1.68E-03	3.86E-03	5.63E-03
Co-60-----		4.54E-03	1.28E-02	1.80E-02	3.53E-02	3.12E-02	1.10E-02	2.48E-02	6.70E-02	1.02E-01
Na-24-----		1.52E-05	-----	-----	1.52E-05	-----	-----	-----	-----	1.52E-05
Sr-89-----		1.70E-06	4.88E-05	2.82E-05	7.87E-05	2.38E-06	2.74E-05	NA	2.98E-05 *	1.08E-04 *
Sr-90-----		2.27E-05	1.55E-04	1.16E-04	2.94E-04	2.91E-05	4.77E-05	NA	7.68E-05 *	3.71E-04 *
Co-58-----		-----	-----	2.11E-04	2.11E-04	5.76E-04	3.02E-05	2.43E-04	8.49E-04	1.06E-03
Fe-59-----		-----	-----	2.96E-04	2.96E-04	6.00E-04	5.13E-05	1.88E-04	8.39E-04	1.14E-03
Net Unidentified Beta		9.23E-03	5.93E-02	2.06E-02	8.91E-02	6.16E-03	2.57E-03	5.13E-02 *	6.00E-02 *	1.49E-01 *
Percent of Total Identified	%	63.6	47.4	63.6	54.2	> 95	> 95	83.2 *	88.4 *	79.1 *

NOTES:

* Does not include June Strontium results - will be revised in next Semi-Annual.