

BRAIDWOOD NUCLEAR POWER STATION
 SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 UNIT 1

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
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A. Fission and Activation Gas Releases

1. Total Release Activity	Ci	3.37E+0	1.76E+0	4.58E+0	9.71E+0	6.70E+0	1.06E+1	8.93E+0	2.61E+1
2. Maximum Release Rate	uCi/sec	7.95E+2	1.22E+2	2.12E+2	7.95E+2	3.48E+2	4.85E+2	3.77E+2	4.85E+2
3. % of 10CFR20 Limits**									
a. Whole Body (500 mrem/year)	%	0.03	0.00	0.00	0.03	0.01	0.01	0.01	0.01
b. Skin (3000 mrem/year)	%	0.02	0.00	0.00	0.02	0.01	0.01	0.01	0.01
4. % of 10CFR50 Limits									
a. Gamma Quarterly (5 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b. Beta Quarterly (10 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
c. Gamma Annual (10 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d. Beta Annual (20 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01

B. Iodine Releases

1. Total I-131 and I-133 Activity	Ci	< LLD	< LLD	4.67E-6	4.67E-6	2.44E-2	1.57E-6	1.39E-5	2.44E-2
2. % of 10CFR20/10CFR50 Limits+									

** % of 10CFR20 limits is based on the maximum release rate for the period considered.

+ Iodine, particulate, and tritium limits are expressed as a total limit. See Step E.

++ < LLD - No detectable activity above lower limit of detection for counting room instrumentation.

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C. Particulate (> 8 day half-life) Releases

1. Gross Activity	Ci	< LLD	< LLD	3.10E-7	3.10E-7	< LLD	< LLD	< LLD	< LLD
2. Gross Alpha Activity	Ci	< LLD	< LLD	2.25E-6	2.25E-6	1.64E-6	< LLD	< LLD	1.64E-6
3. % of 10CFR20/10CFR50 Limits+									

D. Tritium Releases

1. Total Release Activity	Ci	2.12E+0	2.68E-1	3.75E-2	2.42E+0	1.98E-2	6.86E-5	5.25E-2	7.24E-2
2. % of 10CFR20/10CFR50 Limits+									

E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases

1. Total Activity	Ci	2.12E+0	2.68E-1	3.75E-2	2.42E+0	4.42E-2	6.86E-5	5.25E-2	9.68E-2
2. % of 10CFR20 Limit									
a. Any Organ (1500 mrem/year)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. % of 10CFR50 Limit									
a. Quarterly Any Organ (7.5 mrem)	%	0.01	0.00	0.00	0.01	0.03	0.00	0.00	0.03
b. Annual Any Organ (15.0 mrem)	%	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02

+ Iodine, particulate, and tritium limits are expressed as a total limit. See Step E.

BRAIDWOOD NUCLEAR POWER STATION
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 GASEOUS EFFLUENTS - VENT STACK RELEASES
 UNIT 1

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
F. Fission and Activation Gas Releases									
Xe-131m	Ci	< LLD	2.40E-2	7.60E-2	1.00E-1	1.03E-1	1.45E-1	1.30E-1	3.75E-1
Xe-133m	Ci	8.07E-4	1.16E-2	3.62E-2	4.86E-2	6.60E-2	8.85E-2	6.67E-2	2.19E-1
Xe-135m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Xe-133	Ci	3.19E+0	1.68E+0	4.39E+0	9.26E+0	6.40E+0	1.02E+1	8.50E+0	2.50E+1
Xe-135	Ci	3.15E-2	1.34E-2	4.85E-2	9.34E-2	8.94E-2	1.02E-1	9.10E-2	2.82E-1
Kr-85m	Ci	1.45E-4	7.88E-4	2.81E-3	3.74E-3	4.85E-3	5.32E-3	4.73E-3	1.49E-2
Kr-85	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	7.07E-2	9.91E-2	1.69E-1
Kr-87	Ci	< LLD	< LLD	< LLD	< LLD	1.91E-4	4.47E-4	< LLD	6.38E-4
Kr-88	Ci	< LLD	3.35E-4	2.63E-3	2.96E-3	3.94E-3	4.40E-3	5.00E-3	1.33E-2
Ar-41	Ci	1.50E-1	2.53E-2	2.68E-2	2.02E-1	3.52E-2	2.38E-2	3.32E-2	9.22E-2
Others (Specify)									

G. Iodine Releases

I-131	Ci	< LLD	< LLD	4.67E-6	4.67E-6	3.02E-4	1.57E-6	1.36E-5	3.17E-4
I-132	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
I-133	Ci	< LLD	< LLD	< LLD	< LLD	1.27E-4	< LLD	3.00E-7	1.27E-4
I-134	Ci	< LLD	< LLD	< LLD	< LLD	2.40E-2	< LLD	< LLD	2.40E-2
I-135	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Others (Specify)									

BRAIDWOOD NUCLEAR POWER STATION
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 GASEOUS EFFLUENTS - VENT STACK RELEASES
 UNIT 1

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
H. Particulate (> 8 day half-life) Releases									
Mn-54	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Fe-55	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Fe-59	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Co-58	Ci	< LLD	< LLD	1.20E-7	1.20E-7	< LLD	< LLD	< LLD	< LLD
Co-60	Ci	< LLD	< LLD	1.90E-7	1.90E-7	< LLD	< LLD	< LLD	< LLD
Sr-89	Ci	---	---	---	< LLD	---	---	---	*
Sr-90	Ci	---	---	---	< LLD	---	---	---	*
Y-88	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ru-103	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ag-110m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-134	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-136	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-137	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ba/La-140	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ce-144	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Others (Specify)									

* Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report.

BRAIDWOOD NUCLEAR POWER STATION
SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
UNIT 1

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
I. Fission and Activation Products									
1. Total Activity Released	Ci	1.09E-2	4.58E-2	2.52E-3	5.92E-2	2.64E-2	4.89E-2	5.52E-2	1.31E-1
2. Average Concentration Released	uCi/ml	1.97E-7	1.42E-7	8.37E-9	8.72E-8	1.97E-8	1.44E-7	1.86E-8	1.82E-7
3. % of 10CFR50 Limits									
a. Quarterly Whole Body (1.5 mrem)	%	0.05	0.03	0.02	0.10	0.31	0.03	0.11	0.45
b. Quarterly Any Organ (5.0 mrem)	%	0.02	0.01	0.01	0.04	0.13	0.01	0.05	0.19
c. Annual Whole Body (3.0 mrem)	%	0.03	0.01	0.01	0.05	0.16	0.01	0.06	0.23
d. Annual Any Organ (10.0 mrem)	%	0.00	0.01	0.00	0.01	0.01	0.03	0.03	0.07
J. Tritium									
1. Total Activity Released	Ci	4.66E+0	3.82E+1	5.75E+1	1.00E+2	3.74E+1	4.84E+1	4.96E+1	1.35E+2
2. Average Concentration Released	uCi/ml	8.43E-5	1.18E-4	1.91E-4	1.47E-4	2.79E-5	1.43E-4	1.67E-5	1.88E-4
3. % of Limit (3E-3 uCi/ml)	%	2.81	3.93	6.36	4.9	.93	4.76	0.56	6.25
K. Dissolved Noble Gases									
1. Total Activity Released	Ci	3.04E-5	1.21E-4	4.2E-4	5.71E-4	1.70E-3	2.40E-3	7.41E-3	1.15E-2
2. Average Concentration Released	uCi/ml	5.49E-10	3.74E-10	1.39E-9	8.40E-10	1.26E-9	7.07E-9	2.49E-9	1.08E-8
3. % of Limit (2E-4 uCi/ml)	%	2.75E-4	1.87E-4	6.95E-4	4.20E-4	6.30E-4	3.54E-3	1.25E-3	5.42E-3
L. Gross Alpha									
1. Total Activity Released	Ci	< LLD	< LLD	1.57E-3	1.57E-3	< LLD	< LLD	< LLD	< LLD
2. Average Concentration Released	uCi/ml	< LLD	< LLD	5.21E-9	5.21E-9	< LLD	< LLD	< LLD	< LLD
M. Volume of Liquid Waste to Discharge									
	liters	1.61E+6	2.18E+6	1.69E+6	5.48E+6	1.79E+6	2.12E+6	4.13E+6	8.04E+6
N. Volume of Dilution Water									
	liters	5.37E+7	3.21E+8	2.99E+8	6.74E+8	1.34E+9	3.37E+8	2.97E+9	4.65E+9

BRAIDWOOD NUCLEAR POWER STATION
SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
LIQUID EFFLUENTS
UNIT 1

		UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
0. Liquid Effluents										
Cu-64		Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	7.97E-4	7.97E-4
Sr-89		Ci	---	---	---	< LLD	---	---	---	*
Sr-90		Ci	---	---	---	< LLD	---	---	---	*
Co-58		Ci	9.05E-3	1.98E-3	1.75E-3	1.28E-2	4.02E-3	4.99E-3	1.22E-2	2.12E-2
Co-60		Ci	6.70E-4	1.59E-4	1.68E-4	9.97E-4	1.17E-3	8.77E-4	4.30E-3	6.35E-3
Cs-134		Ci	1.19E-4	2.44E-5	1.51E-5	4.46E-4	9.61E-4	3.82E-5	3.52E-4	1.35E-3
Cs-136		Ci	4.34E-6	< LLD	< LLD	4.34E-6	1.24E-4	< LLD	< LLD	1.24E-4
Cs-137		Ci	7.40E-4	2.43E-4	1.36E-4	1.12E-3	3.65E-3	2.43E-4	1.10E-3	4.99E-3
I-131		Ci	< LLD	1.44E-5	1.53E-4	1.67E-4	3.60E-3	4.43E-3	9.17E-3	1.72E-2
I-133		Ci	< LLD	8.15E-6	5.50E-6	1.37E-5	5.26E-4	2.96E-5	7.15E-4	1.27E-3
Ba/La-140		Ci	< LLD	1.42E-6	2.19E-6	3.61E-6	1.93E-4	2.83E-4	8.74E-4	1.35E-3
Xe-133		Ci	2.13E-5	1.21E-4	4.13E-4	5.55E-4	1.70E-3	2.37E-3	7.33E-3	1.14E-2
Xe-135		Ci	9.10E-6	< LLD	7.00E-6	1.61E-5	2.49E-6	5.99E-6	8.48E-5	9.33E-5
Others (Specify)	Na-24	Ci	7.40E-6	1.06E-4	< LLD	1.80E-4	1.76E-3	1.47E-4	< LLD	1.91E-3
	Mn-54	Ci	2.94E-6	1.50E-4	2.40E-5	4.68E-4	3.83E-4	2.47E-4	2.32E-4	8.62E-4
	Sb-124	Ci	3.79E-6	4.88E-5	< LLD	5.26E-5	< LLD	3.46E-5	3.06E-5	6.52E-5
	Mg-99	Ci	7.90E-6	3.21E-6	< LLD	1.11E-5	9.06E-5	< LLD	< LLD	9.06E-5
	Fe-59	Ci	< LLD	2.06E-6	< LLD	2.06E-6	3.95E-5	9.53E-5	1.33E-4	2.68E-4
	Sb-125	Ci	< LLD	8.15E-5	1.04E-5	9.19E-5	< LLD	1.13E-4	1.22E-4	2.35E-4
	Y-92	Ci	< LLD	1.76E-5	< LLD	1.76E-5	< LLD	< LLD	< LLD	< LLD
	Cr-51	Ci	< LLD	7.50E-5	4.18E-5	1.17E-4	1.39E-4	3.14E-3	2.16E-3	5.44E-3
	Nb-95	Ci	< LLD	2.54E-6	< LLD	2.54E-6	1.88E-4	7.34E-4	7.41E-4	1.66E-3
	Zr-95	Ci	< LLD	5.70E-6	< LLD	5.70E-6	9.19E-5	5.11E-4	3.04E-4	9.07E-4
	I-134	Ci	< LLD	< LLD	2.11E-4	2.11E-4	9.95E-4	2.84E-5	< LLD	1.02E-3
	Br-82	Ci	< LLD	< LLD	< LLD	< LLD	6.57E-5	< LLD	7.88E-6	7.36E-5
	I-135	Ci	< LLD	< LLD	< LLD	< LLD	3.48E-6	< LLD	< LLD	3.48E-6
	I-132	Ci	< LLD	< LLD	< LLD	< LLD	8.38E-3	3.29E-2	2.12E-2	6.55E-2
	Kr-88	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	1.44E-5	< LLD	1.44E-5
	Sn-113	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	2.58E-5	< LLD	2.58E-5
	Fe-55	Ci	---	---	---	< LLD	---	---	---	*
	Zr-97	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	7.29E-4	7.29E-4
	W-187	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	3.64E-5	3.64E-5

* Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report.

BRAIDWOOD NUCLEAR POWER STATION
 SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 UNIT 2

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
A. Fission and Activation Gas Releases									
1. Total Release Activity	Ci	2.71E-2	3.77E-1	7.31E-1	1.14E+0	1.58E+0	2.79E+0	3.29E+1	3.69E+1
2. Maximum Release Rate	uCi/sec	1.74E+0	8.30E+1	2.37E+2	2.37E+2	1.45E+2	1.52E+2	8.74E+3	8.74E+3
3. % of 10CFR20 Limits**									
a. Whole Body (500 mrem/year)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21
b. Skin (3000 mrem/year)	%	0.00	0.00	0.01	6.01	0.00	0.00	0.21	0.21
4. % of 10CFR50 Limits									
a. Gamma Quarterly (5 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
b. Beta Quarterly (10 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
c. Gamma Annual (10 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d. Beta Annual (20 mrad)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01

B. Iodine Releases

1. Total I-131 and I-133 Activity	Ci	1.80E-7	< LLD	< LLD	1.80E-7	4.97E-5	1.10E-5	3.43E-5	9.50E-5
2. % of 10CFR20/10CFR50 Limits+									

** % of 10CFR20 limits is based on the maximum release rate for the period considered.

+ Iodine, particulate, and tritium limits are expressed as a total limit. See Step E.

** < LLD - No detectable activity above lower limit of detection for counting room instrumentation.

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 UNIT 2

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
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C. Particulate (> 8 day half-life) Releases

1. Gross Activity	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
2. Gross Alpha Activity	Ci	< LLD	< LLD	< LLD	< LLD	2.13E-6	< LLD	< LLD	2.13E-6
3. % of 10CFR20/10CFR50 Limits ⁺									

D. Tritium Releases

1. Total Release Activity	Ci	1.32E-2	2.08E-3	1.34E+0	1.36E+0	2.35E-2	2.61E-2	1.23E+0	1.28E+0
2. % of 10CFR20/10CFR50 Limits ⁺									

E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases

1. Total Activity	Ci	1.32E-2	2.08E-3	1.34E+0	1.36E+0	2.35E-2	2.61E-2	1.23E+0	1.28E+0
2. % of 10CFR20 Limit									
a. Any Organ (1500 mrem/year)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. % of 10CFR50 Limit									
a. Quarterly Any Organ (7.5 mrem)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
b. Annual Any Organ (15.0 mrem)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01

+ Iodine, particulate, and tritium limits are expressed as a total limit. See Step E.

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GASEOUS EFFLUENTS - VENT STACK RELEASES
UNIT 2

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
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F. Fission and Activation Gas Releases

Xe-131m	Ci	< LLD	3.28E-3	< LLD	3.28E-3	1.79E-2	5.48E-2	8.12E-1	8.82E-1
Xe-133m	Ci	< LLD	2.03E-3	< LLD	2.03E-3	9.03E-3	9.12E-3	9.11E-2	1.07E-1
Xe-135m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Xe-133	Ci	7.33E-3	3.45E-1	7.04E-1	1.06E+0	1.52E+0	2.70E+0	3.13E+1	3.54E+1
Xe-135	Ci	< LLD	2.12E-3	5.50E-3	7.62E-3	4.23E-3	1.87E-3	2.27E-2	2.88E-2
Kr-85m	Ci	< LLD	7.42E-5	< LLD	7.42E-5	< LLD	< LLD	4.43E-4	4.43E-4
Kr-85	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	1.57E-2	1.45E-2
Kr-87	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	9.60E-5	9.60E-5
Kr-88	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	5.66E-4	5.66E-4
Ar-41	Ci	1.98E-2	2.43E-2	2.10E-2	6.51E-2	2.97E-2	2.76E-2	6.51E-1	7.08E-1
Others (Specify)									

G. Iodine Releases

I-131	Ci	8.00E-8	< LLD	< LLD	8.00E-8	4.07E-5	1.10E-5	2.43E-5	7.60E-5
I-132	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
I-133	Ci	1.00E-7	< LLD	< LLD	1.00E-7	5.76E-6	< LLD	9.99E-6	1.57E-5
I-134	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
I-135	Ci	< LLD	< LLD	< LLD	< LLD	3.26E-6	< LLD	< LLD	3.26E-6
Others (Specify)									

BRAIDWOOD NUCLEAR POWER STATION
 SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
 GASEOUS EFFLUENTS - VENT STACK RELEASES
 UNIT 2

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
H. Particulate (> 8 day half-life) Releases									
Mn-54	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Fe-55	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Fe-59	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Co-58	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Co-60	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Sr-89	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Sr-90	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Y-88	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ru-103	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ag-110m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-134	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-136	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Cs-137	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ba/La-140	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Ce-144	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
Others (Specify)									

* Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report.

BRAIDWOOD NUCLEAR POWER STATION
 SEMIANNUAL EFFLUENT REPORT :OR JULY TO DECEMBER, 1988
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
 UNIT 2

	UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
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I. Fission and Activation Products

1. Total Activity Released	Ci	1.09E-2	4.58E-2	2.52E-3	5.92E-2	2.64E-2	4.89E-2	5.52E-2	1.31E-1
2. Average Concentration Released	uCi/ml	1.97E-7	1.42E-7	8.37E-9	8.72E-8	1.97E-8	1.44E-7	1.86E-8	1.82E-7
3. % of 10CFR50 Limits									
a. Quarterly Whole Body (1.5 mrem)	%	0.11	0.03	0.02	0.16	0.31	0.03	0.11	0.45
b. Quarterly Any Organ (5.0 mrem)	%	0.05	0.01	0.01	0.07	0.13	0.01	0.05	0.19
c. Annual Whole Body (3.0 mrem)	%	0.05	0.01	0.01	0.07	0.16	0.01	0.06	0.23
d. Annual Any Organ (10.0 mrem)	%	0.00	0.01	0.00	0.01	0.01	0.03	0.03	0.07

J. Tritium

1. Total Activity Released	Ci	4.66E+0	3.82E+1	5.75E+1	1.00E+2	3.74E+1	4.84E+1	4.96E+1	1.35E+2
2. Average Concentration Released	uCi/ml	8.43E-5	1.18E-4	1.91E-4	1.47E-4	2.79E-5	1.4 E-4	1.67E-5	1.88E-4
3. % of Limit (3E-3 uCi/ml)	%	2.81	3.93	6.36	4.30	0.93	4.76	0.56	6.25

K. Dissolved Noble Gases

1. Total Activity Released	Ci	3.04E-5	1.21E-4	4.20E-4	5.71E-4	1.70E-3	2.40E-3	7.41E-3	1.15E-2
2. Average Concentration Released	uCi/ml	5.49E-10	3.74E-10	1.39E-9	8.40E-10	1.26E-9	7.07E-9	2.49E-9	1.08E-8
3. % of Limit (2E-4 uCi/ml)	%	2.75E-4	1.87E-4	6.95E-4	4.20E-4	6.30E-4	3.54E-3	1.25E-3	5.42E-3

L. Gross Alpha

1. Total Activity Released	Ci	< LLD	< LLD	1.57E-3	1.57E-3	< LLD	< LLD	< LLD	< LLD
2. Average Concentration Released	uCi/ml	< LLD	< LLD	5.21E-9	5.21E-9	< LLD	< LLD	< LLD	< LLD

M. Volume of Liquid Waste to Discharge	liters	1.61E+6	2.18E+6	1.69E+6	5.48E+6	1.79E+6	2.12E+6	4.13E+6	8.04E+6
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N. Volume of Dilution Water	liters	5.37E+7	3.21E+8	2.99E+8	6.74E+8	1.34E+9	3.37E+8	2.97E+9	4.65E+9
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BRAIDWOOD NUCLEAR POWER STATION
 SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988
 LIQUID EFFLUENTS
 UNIT 2

		UNITS	JULY	AUG	SEP	3rd QUARTER	OCT	NOV	DEC	4th QUARTER
O. Liquid Effluents										
Cu-64		Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	7.97E-4	7.97E-4
Sr-89		Ci	---	---	---	< LLD	---	---	---	*
Sr-90		Ci	---	---	---	< LLD	---	---	---	*
Co-58		Ci	9.05E-3	1.98E-3	1.75E-3	1.28E-2	4.02E-3	4.99E-3	1.22E-2	2.12E-2
Co-60		Ci	6.70E-4	1.59E-4	1.68E-4	9.97E-4	1.17E-3	8.77E-4	4.30E-3	6.35E-3
Cs-134		Ci	1.19E-4	2.44E-5	1.51E-5	4.46E-4	9.61E-4	3.82E-5	3.52E-4	1.35E-3
Cs-136		Ci	4.34E-6	< LLD	< LLD	4.34E-6	1.24E-4	< LLD	< LLD	1.24E-4
Cs-137		Ci	7.40E-4	2.43E-4	1.36E-4	1.12E-3	3.65E-3	2.43E-4	1.10E-3	4.99E-3
I-131		Ci	< LLD	1.44E-5	1.53E-4	1.67E-4	3.60E-3	4.43E-3	9.17E-3	1.72E-2
I-133		Ci	< LLD	8.15E-6	5.50E-6	1.37E-5	5.26E-4	2.96E-5	7.15E-4	1.27E-3
Ba/La-140		Ci	< LLD	1.42E-6	2.19E-6	3.61E-6	1.93E-4	2.83E-4	8.74E-4	1.35E-3
Xe-133		Ci	2.13E-5	1.21E-4	4.13E-4	5.55E-4	1.70E-3	2.37E-3	7.33E-3	1.14E-2
Xe-135		Ci	9.10E-6	< LLD	7.00E-6	1.61E-5	2.49E-6	5.99E-6	8.48E-5	9.33E-5
Others (Specify)	Na-24	Ci	7.40E-6	1.06E-4	< LLD	1.80E-4	1.76E-3	1.47E-4	< LLD	1.91E-3
	Mn-54	Ci	2.94E-6	1.50E-4	2.40E-5	4.68E-4	3.83E-4	2.47E-4	2.32E-4	8.62E-4
	Sb-124	Ci	3.79E-6	4.88E-5	< LLD	5.26E-5	< LLD	3.46E-5	3.06E-5	6.52E-5
	Mo-99	Ci	7.90E-6	3.21E-6	< LLD	1.11E-5	9.06E-5	< LLD	< LLD	9.06E-5
	Fe-59	Ci	< LLD	2.65E-6	< LLD	2.06E-6	3.95E-5	9.53E-5	1.33E-4	2.68E-4
	Sb-125	Ci	< LLD	8.15E-5	1.04E-5	9.19E-5	< LLD	1.13E-4	1.22E-4	2.35E-4
	Y-92	Ci	< LLD	1.76E-5	< LLD	1.76E-5	< LLD	< LLD	< LLD	< LLD
	Cr-51	Ci	< LLD	7.50E-5	4.18E-5	1.17E-4	1.39E-4	3.14E-3	2.16E-3	5.44E-3
	Nb-95	Ci	< LLD	2.54E-6	< LLD	2.54E-6	1.88E-4	7.34E-4	7.41E-4	1.66E-3
	Zr-95	Ci	< LLD	5.70E-6	< LLD	5.70E-6	9.19E-5	5.11E-4	3.04E-4	9.07E-4
	I-134	Ci	< LLD	< LLD	2.11E-4	2.11E-4	9.95E-4	2.84E-5	< LLD	1.02E-3
	Br-82	Ci	< LLD	< LLD	< LLD	< LLD	6.57E-5	< LLD	7.88E-6	7.36E-5
	I-135	Ci	< LLD	< LLD	< LLD	< LLD	3.48E-6	< LLD	< LLD	3.48E-6
	I-132	Ci	< LLD	< LLD	< LLD	< LLD	8.38E-3	3.29E-2	2.12E-2	6.55E-2
	Kr-88	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	1.45E-5	< LLD	1.44E-5
	Sn-113	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	2.58E-5	< LLD	2.58E-5
	Fe-55	Ci	---	---	---	< LLD	---	---	---	*
	Zr-97	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	7.29E-4	7.29E-4
	W-187	Ci	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD	3.64E-5	3.64E-5

* Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report.

BRAIDWOOD NUCLEAR POWER STATION
SEMIANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER, 1988

- A. Pursuant to Technical Specification 6.9.1.7, the following is an explanation as to why the inoperability of liquid or gaseous effluent monitoring instrumentation was not corrected within the time specified in Technical Specifications:
1. Gas Decay Tank Radiation Monitor (OPR02J) was inoperable greater than 14 days. The monitor was inoperable due to the time spent to troubleshoot spiking problems and complete a modification to relocate a ground wire.
 2. Condensate Polisher Sump Discharge Monitor (OPR41J) was inoperable greater than 30 days. The monitor was inoperable due to spiking problems following installation.
- B. There were no major changes to the liquid, gaseous, or solid Radwaste Treatment Systems. There were no liquid holdup tanks or gas decay tanks which exceeded the limits addressed in the Technical Specifications.
- C. There were no revisions to the Braidwood Station Process Control Program.

BRAIDWOOD NUCLEAR POWER STATION
SEMI ANNUAL EFFLUENT REPORT FOR JULY TO DECEMBER 1988
SOLID RADIOACTIVE WASTE

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

DESCRIPTION	VOLUME (m ³)	CURIES	MAJOR NUCLIDES/CURIES			
Process Waste	2.27E+1	1.04E+0 Error 1.13E+0%	H-3	6.51E-1	+	1.70E+0%
			Co-58	1.32E-1	+	1.67E+0%
			Fe-55	1.17E-1	+	2.47E+0%
			Mn-54	3.01E-2	+	1.86E+0%
			Co-60	2.58E-2	+	2.07E+0%
			Cs-137	1.91E-2	+	2.34E+0%
			Ni-63	1.38E-2	+	2.06E+0%
			Be-7	1.05E-2	+	2.80E+0%
Dry Active Waste	3.21E+1	4.82E-2 Error 1.24E+0%	Co-58	4.19E-2	+	1.42E+0%
			Mn-54	5.31E-3	+	1.15E+0%
			Fe-55	5.51E-4	+	1.16E+0%
Irradiated Components	0.00E+0	0.00E+0				
Other	0.00E+0	0.00E+0				

Number of Shipments: 5
Mode of Transportation: Exclusive Use Vehicle
Destination: U.S. Ecology, Richland, WA (4)
 SEG, Oak Ridge, TN (1)

B. IRRADIATED FUEL SHIPMENTS

No irradiated fuel shipments for July to December, 1988



Commonwealth Edison
Braidwood Nuclear Power Station
Route #1, Box 84
Braceville, Illinois 60407
Telephone 815/458-2801

February 10, 1989

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

SUBJECT: Braidwood Station Operating Report, NRC Dockets
STN 50-456 and STN 50-457

To Whom It May Concern:

Enclosed is the Radioactive Effluent Report for June through
December, 1988, for Braidwood Nuclear Station.

One copy of this report will be furnished to the NRC Resident
Inspector.

Sincerely,

R. E. Querio
Station Manager

REQ/KA/tab

Enclosure

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