

## APPENDIX A

## REPORT RADIOACTIVE EFFLUENTS

FACILITY: ROCHESTER GAS & ELECTRIC GINVA STATIONDOCKET: 50-244YEAR: 1981

## I. LIQUID RELEASES

	UNITS	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1. GROSS RADIOACTIVITY ( $\beta, \gamma$ )								
A) TOTAL RELEASED (except 2,3 & 4)	CURIES	2.6 E-3	2.2 E-3	3.93 E-3	3.08 E-3	3.39 E-3	2.24 E-3	1.74 E-2
B) AVERAGE CONCENTRATION RELEASED	$\mu$ CI/ML	6.86 E-7	8.06 E-7	8.83 E-6	7.78 E-7	1.02 E-6	1.89 E-6	N/A
C) MAXIMUM CONCENTRATION RELEASED	$\mu$ CI/ML	1.31 E-6	5.7 E-6	1.13 E-5	6.05 E-6	1.92 E-5	1.92 E-5	N/A
2. TRITIUM								
A) TOTAL RELEASED	CURIES	16.14	55.3	14.83	1.9	5.1	11.3	104.6
B) AVERAGE CONCENTRATION RELEASED	$\mu$ CI/ML	2.39 E-7	8.18 E-7	2.27 E-7	2.81 E-8	7.77 E-8	1.67 E-7	N/A
C) PERCENT OF LIMIT	%	0.008	0.03	0.008	0.0009	0.0026	0.0056	N/A
3. DISSOLVED NOBLE GASES								
A) TOTAL RELEASED	CURIES	ND	ND	ND	ND	ND	ND	ND
B) AVERAGE CONCENTRATION RELEASED	$\mu$ CI/ML	ND	ND	ND	ND	ND	ND	N/A
4. GROSS ALPHA RADIOACTIVITY								
A) TOTAL RELEASED	CURIES	ND	ND	ND	ND	ND	ND	ND
B) AVERAGE CONCENTRATION RELEASED	$\mu$ CI/ML	ND	ND	ND	ND	ND	ND	N/A
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	3.91 E 6	4.04 E 6	3.57 E 6	8.29 E 5	3.78 E 6	3.71 E 6	1.98 E 7
6. VOLUME OF DILUTION WATER	LITERS	6.76 E 10	6.76 E 10	6.54 E 10	6.76 E 10	6.54 E 10	6.74 E 10	4.01 E 11
7. ISOTOPES RELEASED	CURIES							
Cerium 141	ND	2.21 E-5	ND	6.59 E-5	ND	ND	ND	8.8 E-5
Ruthenium 103	ND	ND	ND	ND	ND	ND	ND	ND
Cesium 137	ND	9.02 E-4	9.1 E-4	1.21 E-3	1.2 E-3	4.44 E-5	1.03 E-4	4.37 E-3
Cesium 134	ND	5.71 E-5	1.4 E-4	7.0 E-5	1.05 E-4	1.55 E-5	7.92 E-6	9.09 E-4
Cobalt 58	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt 60	ND	1.17 E-3	1.15 E-3	2.43 E-3	1.71 E-3	3.33 E-3	2.04 E-3	1.18 E-2
Manganese 54	ND	ND	ND	ND	ND	ND	ND	ND
Zirconium 95	ND	ND	ND	ND	ND	ND	ND	ND
Niobium 95	ND	ND	ND	ND	ND	ND	ND	ND
Cerium 144/Praseodymium 144	ND	1.01 E-5	1.09 E-4	ND	ND	ND	ND	1.19 E-4
Tellurium 132	ND	ND	ND	ND	ND	ND	ND	ND
Ruthenium 106	ND	ND	ND	ND	ND	ND	ND	ND
Silver 110m	ND	ND	ND	ND	ND	ND	ND	ND
Molybdenum 99	ND	ND	ND	ND	ND	ND	ND	ND
Barium 140	ND	ND	ND	ND	ND	ND	ND	ND
Chromium 51	ND	ND	ND	ND	ND	ND	ND	ND
Iron 59	ND	ND	ND	ND	ND	ND	ND	ND
Tellurium 129m	ND	ND	ND	ND	ND	ND	ND	ND
Cesium 136	ND	ND	ND	ND	ND	ND	ND	ND
Neptunium 239	ND	ND	ND	ND	ND	ND	ND	ND
Iodine 131	ND	ND	1.07 E-4	ND	ND	ND	ND	1.07 E-4
Tellurium 127m	ND	ND	ND	ND	ND	ND	ND	ND
Barium/Lanthanum 140	ND	ND	ND	ND	ND	ND	8.83 E-5	8.83 E-5
Zinc 65	ND	ND	ND	ND	ND	ND	ND	ND
Strontium 90	ND	ND	ND	ND	ND	ND	ND	ND
Antimony 125	ND	ND	ND	ND	ND	ND	ND	ND
PERCENT OF TECHNICAL SPECIFICATION LIMIT FOR ACTIVITY RELEASED	%							N/A

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FACILITY: ROCHESTER GAS & ELECTRIC GINNA STATIONDOCKET: 50-244YEAR: 1981

## II. AIRBORNE RELEASES

	UNITS	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1. TOTAL NOBLE GASES	CURIES	76.6	45.1	29.6	5.6	31.41	10.14	198.8
2. TOTAL HALOGENS	CURIES	1.34 E-4	1.7 E-4	1.4 E-4	1.43 E-4	5.62 E-5	3.5 E-4	9.9 E-4
3. TOTAL PARTICULATE GROSS RADIOACTIVITY ( $\beta, \gamma$ )	CURIES	2.14 E-7	8.02 E-8	6.4 E-6	ND	2.7 E-8	ND	6.72 E-6
4. TOTAL TRITIUM	CURIES	19.51	5.45	1.20	2.60	6.54	7.73	43.0
5. TOTAL PARTICULATE GROSS ALPHA RADIOACTIVITY	CURIES	ND	ND	7.9 E-8	1.2 E-8	ND	ND	9.1 E-8
6. MAXIMUM NOBLE GAS RELEASE RATE	$\mu$ CI/SEC	91.3	25.0	11.4	2.1	24.7	3.78	N/A
7. PERCENT OF APPLICABLE LIMIT FOR:								
A) NOBLE GASSES	%	0.052	0.034	0.021	0.004	0.021	0.008	N/A
B) HALOGENS	%	0.031	0.030	0.038	0.021	0.075	0.032	N/A
C) PARTICULATES	%	0.0001	0.0001	0.0001	ND	0.0001	0.0003	N/A
8. ISOTOPE RELEASED:	CURIES							
PARTICULATES AG 110m	"	ND	ND	8.82 E-8	ND	ND	ND	8.82 E-8
Cesium 137	"	1.87 E-7	3.13 E-7	3.59 E-7	ND	ND	7.39 E-7	1.6 E-6
Chromium 51	"	ND	8.37 E-7	ND	ND	ND	ND	8.37 E-7
Zirconium 95	"	1.22 E-7	ND	ND	ND	ND	ND	1.22 E-7
Cesium 134	"	ND	6.72 E-8	ND	ND	ND	ND	6.72 E-8
Cobalt 60	"	1.83 E-7	1.86 E-7	1.08 E-7	ND	5.16 E-7	5.76 E-7	1.57 E-6
Antimony 125	"	8.46 E-8	ND	ND	ND	ND	ND	8.46 E-8
HALOGENS	CURIES							
Iodine 131	"	2.44 E-5	2.35 E-5	2.89 E-5	1.6 E-5	5.62 E-5	2.14 E-5	1.7 E-4
Iodine 133	"	1.1 E-4	1.47 E-4	1.12 E-4	1.27 E-4	1.77 E-4	2.09 E-4	8.86 E-4
Iodine 135	"	ND	ND	ND	ND	ND	1.23 E-4	1.23 E-4
GASES	CURIES							
Krypton 85	"	ND	0.50	ND	ND	1.20	ND	1.70
Xenon 133	"	73.41	39.46	15.331	4.767	30.02	9.15	172.1
Krypton 88	"	0.008	0.008	0.005	0.006	0.003	0.005	0.035
Krypton 87	"	0.006	0.005	0.004	0.004	0.003	0.003	0.025
Krypton 85m	"	0.004	0.094	0.303	0.004	0.002	0.002	0.409
Xenon 138	"	0.005	0.008	ND	0.004	0.002	ND	0.019
Xenon 135m	"	0.046	0.888	0.05	0.031	0.003	0.004	1.022
Xenon 135	"	3.08	3.79	2.376	0.347	0.174	0.965	10.732
Argon 41	"	0.02	0.03	0.009	0.007	0.004	0.007	0.347
Xenon 133m	"	ND	ND	ND	0.413	ND	ND	0.413
OTHERS AS APPROPRIATE ( SPECIFY )	CURIES							
Xenon 131m	"	ND	0.03	11.538	ND	ND	ND	11.568
	"							
	"							

