EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

Supplemental Information

Report Period: July 1 to December 31, 1983

Facility Ginna Station Licensee Rochester Gas & Electric

1. Regulatory Limits

a.	Fission and activation gases:	6.0 E+04 uCi/sec.
b.	Iodines:	2.9 E-2 uCi/sec.
c.	Particulates, half-lives > 8 days:	2.9 E-2 uCi/sec.
d.	Liquid effluents:	Either Identified MPC or Unidentified MPC

2. Maximum Permissible Concentrations

Provide the MPCs used in determining allowable release rates or concentrations.

a.	Fission and activation gases:	MPC values are determined on each release normally release rates are calculated using 1/10 of the identified or unidentified MPC for the batch.
b.	Iodines:	
c.	Particulates, half-lives > 8 days:	
d.	Liquid effluents:	

3. Average Energy

Provide the average energy $(\overline{E})$ of the radionuclide mixture in releases of fission and activation gases, if applicable.

Not available

4. Measurements and Approximations of Total Radioactivity

Provide the methods used to measure or approximate the total radioactivity in effluents and the methods used to determine radionuclide composition.

a.	Fission and activation gases:	Gamma Spectroscopy of Grab Samples
b.	Iodines:	Gamma Spectroscopy of Continuous Samples
c.	Particulates:	Gamma Spectrocsopy of Continuous Samples or Grab Samples.
d.	Liquid effluents:	Gamma Spectroscopy of Batch Grab Samples or Composited Samples.

5. Batch Releases

Provide the following information relating to batch releases of radioactive materials in liquid and gaseous effluents.

a. Liquid

1.	Number of batch releases:	421
2.	Total time period for batch releases:	26307 min.
3.	Maximum time period for a batch release:	258 min.
4.	Average time period for batch releases:	62.5 min.
5.	Minimum time period for a batch release:	5 min.
6.	Average stream flow during periods of release of effluent into a flowing stream:	400,000 gpm

TABLE 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Unit	Quarter 3	Quarter 4	Est. Total Error %
A. Fission & activation gases				
1. Total release	Ci	1.98E 1	3.38E 1	2.8 E 1
2. Average release rate for period	uCi/sec	2.49E Ø	4.3ØE Ø	
3. Percent of technical specification limit	%	4.15E-3	7.17E-3	
B. Iodines				
1. Total iodine-131	Ci	4.49E-5	1.12E-4	1.5 E 1
2. Average release rate for period	uCi/sec	5.65E-6	1.43E-5	
3. Percent of technical specification limit	%	1.95E-2	5.Ø7E-2	
C. Particulates				
1. Particulates with half-lives > 8 days	Ci	1.17E-5	3.Ø3E-6	4.8 E 1
2. Average release rate for period	uCi/sec	1.47E-6	3.85E-7	
3. Percent of technical specification limit	%	5.Ø7E-2	1.33E-2	
4. Gross alpha radioactivity	Ci	1.13E-6	6.67E-7	
D. Tritium				
1. Total release	Ci	1.81E 1	2.33E 1	3.Ø E Ø
2. Average release rate for period	uCi/sec	2.28E Ø	2.97E Ø	
3. Percent of technical specification limit	%	3.93E Ø	5.12E Ø	

TABLE 1B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

GASEOUS EFFLUENTS - ELEVATED RELEASE

		CONTINUOUS MODE		BATCH MODE	
Nuclides Released	Unit	Quarter	Quarter	Quarter	Quarter
1. Fission gases		3	4	3	4
krypton-85	Ci			2.58E-1	1.31E Ø
krypton-85m	Ci	3.8 E-3	7.5 E-3		
krypton-87	Ci	7.6 E-3	1.41E-2		
krypton-88	Ci	9.2 E-3	1.79E-2		
xenon-133	Ci	1.72E+Ø1	2.99E+Ø1	3.76E-1	6.94E-1
xenon-135	Ci	6.6ØE Ø	1.47E Ø	4.ØØE-4	5.2 E-3
xenon-135m	Ci	8.ØØE-2	1.39E-1		
xenon-138	Ci	1.41E-2	4.4ØE-2		
Others (specify) Xe-131m	Ci			2.6ØE-2	1.65E-1
	Ci				
	Ci				
unidentified	Ci				
Total for period	Ci	2.39E 1	3.16E 1	6.6ØE-1	2.17E Ø
2. Iodines					
iodine-131	Ci	1.69E-5	6.46E-5		
iodine-133	Ci	2.81E-5	4.79E-5		
iodine-135	Ci				
Total for period	Ci	4.5ØE-5	1.13E-4		
3. Particulates					
strontium-89	Ci				
strontium-9Ø	Ci				
cesium-134	Ci				
cesium-137	Ci				
barium-lanthanum-14Ø	Ci				
Others (specify)	Ci				
Co-6Ø	Ci	1.Ø9E-5	5.85E-6		
	Ci				
unidentified	Ci				