

SEMI-ANNUAL EFFLUENT REPORT

July - December

1979

Public Service Company

Fort St. Vrain
Nuclear Generating Station

January 1980

1867 132

8002040 594

1.0 SUMMARY

This report summarizes the radiological and non-radiological effluent released from the Fort St. Vrain Nuclear Generating Station for the period July through December, 1979. In addition, table 5.1 furnishes a general summary of the primary plant systems under radiological surveillance and table 5.1 summarizes the solid waste removed from the site during the aforementioned time period. These data are reported pursuant to the requirements of 10 CFR 50.36(a) and the Technical Specifications of Fort St. Vrain Appendix B AC NR 1.1.

Tritium is the radionuclide of principal interest released via the liquid pathway during the second half of 1979. A total of 45.7 curies of tritium were released to the cooling tower blowdown. Samples taken along the effluent pathway indicate that the tritium concentration is well below the MPC as specified in 10 CFR 20 Appendix B. The total tritium released indicates the batch releases and the continuous releases via the turbine building sump and the reactor building sump.

Tritium, xenon, and krypton in small amounts were released via the reactor building stack during the third quarter of 1979 and tritium and xenon were the primary radionuclides released during the fourth quarter of 1979. No particulate or halogens have been detected in the gaseous waste or by analyzing the filters from the reactor building exhaust sampling system. Some difficulty was encountered with the meteorological instrumentation during the second half of the year. On a few occasions the meteorological data was lost due to problems with the data collection system and the meteorological instrumentation.

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TABLE 1.1 RADIOACTIVE LIQUID EFFLUENT RELEASES FOR 4TH QUARTER, 1979

[illegible]
$$\begin{aligned} 4.7E-05 &= 4.7 \times 10^{-5} \\ 5.2E+03 &= 5.2 \times 10^3 \end{aligned}$$

NSA means no significant activity.

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TABLE 1.2 - RADIOACTIVE LIQUID EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH LIQUID RELEASES

Release No.	327	328	329	330	331
Date	7/1/79	7/5/79	7/17/79	7/20/79	7/23/79
Total Time of Hours Release	4.8	3.95	12.5	4.2	4.7
% of Tech. Spec. Limit Based on Gross β γ	2.43E+00	4.06E+00	4.30E-01	2.13E+00	1.10E+00
% of MPC Limit for Tritium	2.22E+01	1.67E+01	4.05E+01	7.01E+01	2.23E+01
Total Volume Released (liters)	9028	8699	8567	8238	8765

Release No.	332	333	334	335	336
Date	7/30/79	7/31/79	8/1/79	8/2/79	8/3/79
Total Time of Hours Release	3.5	4.0	4.6	4.1	4.7
% of Tech. Spec. Limit Based on Gross β γ	3.01E+00	3.57E+00	5.50E-01	1.47E+00	5.60E-01
% of MPC Limit for Tritium	2.97E+01	1.13E+01	2.32E+00	1.39E+00	5.80E-01
Total Volume Released (liters)	7381	8435	9160	8435	8567

Release No.	337	338	339	340	341
Date	8/6/79	8/9/79	8/10/79	8/15/79	8/19/79
Total Time of Hours Release	4.7	12.7	3.7	4.0	3.4
% of Tech. Spec. Limit Based on Gross β γ	1.48E+00	1.02E+00	2.60E+00	5.80E-01	1.21E+00
% of MPC Limit for Tritium	5.34E+01	3.01E+00	2.89E+01	1.89E+01	1.17E+01
Total Volume Released (liters)	8238	8172	8238	8633	6722

TABLE L.2 - RADIOACTIVE LIQUID EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH LIQUID RELEASES

Release No.	342	343	344	345	346
Date	8/18/79	8/21/79	8/23/79	8/24/79	8/28/79
Total Time of Hours Release	4.0	3.7	3.9	3.8	4.5
% of Tech. Spec. Limit Based on Gross β γ	1.69E+01	4.10E-01	5.40E-01	1.60E+00	1.10E+00
% of MPC Limit for Tritium	3.02E+01	4.20E+01	3.74E+01	1.18E+01	6.16E+00
Total Volume Released (liters)	8962	8765	8633	8501	8673

Release No.	347	348	349	350	351
Date	9/1/79	9/6/79	9/19/79	9/24/79	9/28/79
Total Time of Hours Release	3.9	3.4	7.3	4.4	3.9
% of Tech. Spec. Limit Based on Gross β γ	1.33E+00	1.60E+00	1.25E+00	6.60E+01	4.04E-01
% of MPC Limit for Tritium	6.79E+00	2.83E+01	9.33E+01	4.00E+01	4.42E+01
Total Volume Released (liters)	8172	7776	8369	8765	7381

Release No.	352	353	354	355	356
Date	10/1/79	10/5/79	10/10/79	10/11/79	10/12/79
Total Time of Hours Release	3.82	3.50	0.4	3.82	4.28
% of Tech. Spec. Limit Based on Gross β γ	-2.61E-01	-1.56E-02	7.48E-01	3.51E-01	1.40E+00
% of MPC Limit for Tritium	1.07E+01	5.33E+00	3.19E+00	1.50E+00	6.13E+01
Total Volume Released (liters)	8369	7974	1647	7315	7447

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TABLE 1.2 - RADIOACTIVE LIQUID EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH LIQUID RELEASES

Release No.	357	358	359	360*	361
Date	10/13/79	10/14/79	10/15/79	10/15/79	10/17/79
Total Time of Hours Release	6.97	4.22	4.15	16.42	4.73
% of Tech. Spec. Limit Based on Gross β γ	2.35E+00	1.66E+00	1.36E+01	4.30E-02	6.61E-01
% of MPC Limit for Tritium	5.95E+01	2.48E+01	1.96E+01	2.48E-01	2.82E+01
Total Volume Released (liters)	9391	8369	9226	144585	7974

Release No.	362	363	364	365	366
Date	10/20/79	10/25/79	10/26/79	10/28/79	10/30/79
Total Time of Hours Release	8.88	3.85	3.48	3.97	4.42
% of Tech. Spec. Limit Based on Gross β γ	1.30E+00	2.38E+00	1.77E+00	-6.73E-03	3.46E-01
% of MPC Limit for Tritium	5.84E+01	4.64E+01	3.36E+01	4.27E+00	1.99E+00
Total Volume Released (liters)	7776	8831	8040	8962	7842

Release No.	367	368	369	370	371
Date	11-5-79	11-7-79	11-10-79	11-16-79	11-23-79
Total Time of Hours Release	4.2	3.9	2.6	4.0	5.3
% of Tech. Spec. Limit Based on Gross β γ	6.32E-01	1.09E+00	1.02E+00	9.96E-01	3.61E+00
% of MPC Limit for Tritium	1.88E+00	5.90E-01	5.56E+00	8.15E+00	8.13E+01
Total Volume Released (liters)	6985	8303	5799	8831	8501

*Release 360 made from Reactor Bldg Sump

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TABLE 1.2 - RADIOACTIVE LIQUID EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH LIQUID RELEASES

Release No.	372	373	374	375	
Date	11-25-79	12-4-79	12-10-79	12-20-79	
Total Time of Hours Release	3.4	4.1	3.3	3.3	
% of Tech. Spec. Limit Based on Gross β γ	6.81E+00	2.36E+00	1.38E+00	9.49E-01	
% of MPC Limit for Tritium	7.06E+01	2.27E+01	1.68E+01	8.24E+00	
Total Volume Released (liters)	7644	7710	7117	7578	

Release No.					
Date					
Total Time of Hours Release					
% of Tech. Spec. Limit Based on Gross β γ					
% of MPC Limit for Tritium					
Total Volume Released (liters)					

Release No.					
Date					
Total Time of Hours Release					
% of Tech. Spec. Limit Based on Gross β γ					
% of MPC Limit for Tritium					
Total Volume Released (liters)					

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TABLE 1.3: LIQUID EFFLUENT RELEASED VIA THE TURBINE BUILDING SUMP
AND THE REACTOR BUILDING SUMP (CONTINUOUS RELEASE) *

Turbine Building Sump

	July	August	September	Quarterly Total
Volume ℓ	3.55E+06	7.32E+06	1.94E+06	1.28E+07 ℓ
H ³ pCi/l	1.92E+04	5.35E+04	2.78E+04	5.14E-01 Ci
Gross 3 γ pCi/l	1.14E+01	9.87E+00	1.05E+01	1.33E-04 Ci
Gross α pCi/l	1.67E+01	1.32E+01	1.26E+01	1.80E-04 Ci

Reactor Building Sump

	July	August	September	Quarterly Total
Volume ℓ	4.59E+05	9.39E+05	1.14E+06	2.54E+06 ℓ
H ³ pCi/l	1.66E+05	5.28E+05	1.19E+05	7.08E-01 Ci
Gross 3 γ pCi/l	9.90E+00	9.47E+00	7.58E+00	2.21E-05 Ci
Gross α pCi/l	3.88E+00	3.56E+00	3.53E+00	9.15E-06 Ci

* Does not include batch release data.

TABLE 1.3: LIQUID EFFLUENT RELEASED VIA THE TURBINE BUILDING SUMP
AND THE REACTOR BUILDING SUMP (CONTINUOUS RELEASE)

Turbine Building Sump

	October	November	December	Quarterly Total Ci
Volume L	2.06E+06	2.38E+06	7.72E+06	1.22E+07
H ³ pCi/l	3.90E+04	4.28E+03	3.76E+03	4.70E+04
Gross BY pCi/l	1.24E+01	6.98E+00	9.37E+00	2.88E+01
Gross a pCi/l	2.09E+01	8.32E+00	9.77E+00	3.90E+01

Reactor Building Sump

	October	November	December	Quarterly Total Ci
Volume L	8.09E+06*	8.12E+05	9.66E+05	9.87E+06
H ³ pCi/l	3.54E+05*	8.93E+04	5.56E+04	4.99E+05
Gross BY pCi/l	8.20E+00*	1.28E+01	6.81E+00	2.78E+01
Gross a pCi/l	2.52E+00*	4.64E+00	2.91E+00	1.01E+01

*Excluding batch release #360, made on 10/15/79

TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

	UNITS	JULY	AUGUST	SEPTEMBER	QUARTERLY TOTAL
1a. Total Noble Gases	Curies	2.99E-01	6.16E+01	1.31E+01	7.50E+01
1b. Total Tritium	Curies	1.57E-01	8.76E-02	9.76E-01	1.22E+00
1c. Total Halogens	Curies	NSA	NSA	NSA	NSA
1d. Total Particulate Gross (β, γ) Activity RT-7325	Curies	4.50E-12	3.92E-12	1.31E-10	1.39E-10
1e. Total Particulate Gross Alpha Activity RT-7325	Curie	1.88E-12	1.47E-12	6.26E-11	6.60E-11
2. Maximum Hourly Release Rate for Any One Hour Period	Ci/hr	1.13E-02	3.46E+00	2.79E-01	3.46E+00
3. Estimated Total Radioac- tivity Released by Nu- clide (MPCa)					
Particulates MPCa	Curies				
Halogens MPCa	Curies				
Gases MPCa	Curies				
Tritium 2.00E-07		1.57E-01	8.76E-02	9.76E-01	1.22E+00
133 Xe 3.00E-07		2.98E-01	6.11E+01	1.31E+01	7.45E+01
135 Xe 1.00E-07		1.75E-03	2.85E-02		3.03E-02
133 Xem			4.57E-01		4.57E-01
85 Krm			1.23E-02		1.23E-02
87 Kr			1.09E-02		1.09E-02
88 Kr			1.57E-02		1.57E-02

$4.7E-05 = 4.7 \times 10^{-5}$
 $5.2E+03 = 5.2 \times 10^{+3}$

NSA means no significant activity.

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TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

	UNITS	OCTOBER	NOVEMBER	DECEMBER	QUARTERLY TOTAL	
1a. Total Noble Gases	Curies	2.15E+00	3.11E-01	6.08E-02	2.52E+00	
1b. Total Tritium	Curies	3.81E-01	3.00E-01	1.16E-01	7.97E-01	
1c. Total Halogens	Curies	6.89E-07	NSA	NSA	NSA	
1d. Total Particulate Gross (S,y) Activity RT-7325	Curies	7.44E-11	1.17E-10	6.48E-12	1.98E-10	
1e. Total Particulate Gross Alpha Activity RT-7325	Curies	3.34E-11	9.12E-11	1.76E-12	1.26E-10	
2. Maximum Hourly Release Rate for Any One Hour Period	Ci/hr	5.01E-02	1.03E-02	3.68E-03	5.01E-02	
3. Estimated Total Radioactivity Released by Nuclide (MPCa)						
Particulates	MPCa	Curies	NSA	NSA	NSA	
			NSA			
Halogens	MPCa	Curies	NSA	NSA	NSA	
131I			6.89E-07			
Gases	MPCa	Curies				
3H	2.00E-07		3.81E-01	3.00E-01	1.16E-01	7.97E-01
133XE	3.00E-07		2.14E+00	3.11E-01	6.08E-02	2.51E+00
135XE	1.00E-07		2.79E-03			2.79E-03
133XEM	3.00E-07		8.90E-03			8.90E-03

$4.7E-05 = 4.7 \times 10^{-5}$
 $5.2E+03 = 5.2 \times 10^3$

NSA means no significant activity.

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TABLE 2.2 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH GASEOUS RELEASES

Release No.	347	348	349	350	351
Date	7/3/79	7/6/79	7/9/79	7/10/79	7/13/79
Total Time of Release (hours)	17.7	15.9	15.5	16.6	17.2
Percent of Technical Specification Limit	9.91E-04	1.45E-03	9.18E-03	3.89E-03	1.07E-02
Average Rate of Release (μ Ci/sec)	5.97E-02	1.07E-01	5.92E-01	3.03E-01	9.14E-01

Release No.	352	353	354	355	356
Date	7/16/79	7/20/79	7/23/79	7/25/79	7/28/79
Total Time of Release	14.9	18.1	16.5	13.9	17.3
Percent of Technical Specification Limit	3.42E-03	7.84E-03	9.54E-03	3.08E-03	3.54E-02
Average Rate of Release (μ Ci/sec)	2.92E-01	4.86E-01	5.53E-01	2.01E-01	3.14E+0

Release No.	357	358	359	360	361
Date	7/30/79	8/1/79	8/3/79	8/6/79	8/7/79
Total Time of Release	17.0	13.9	15.0	15.6	14.3
Percent of Technical Specification Limit	1.36E-02	3.84E-02	3.51E-03	1.23E-01	5.81E-02
Average Rate of Release (μ Ci/sec)	8.58E-01	3.45E+00	3.14E-01	3.09E+00	5.17E+00

TABLE 2.2 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH GASEOUS RELEASES

Release No.	362	363	364	365	366
Date	8/8/79	8/10/79	8/13/79	8/15/79	8/17/79
Total Time of Release	17.3	14.1	14.1	15.0	15.4
Percent of Technical Specification Limit	3.60E-01	2.78E-02	1.81E-01	5.39E-02	4.77E-01
Average Rate of Release (μ Ci/sec)	3.25E+01	2.36E+00	1.62E+01	4.78E+00	4.25E+01

Release No.	367	368	369	370	371
Date	8/20/79	8/28/79	9/1/79	9/4/79	9/6/79
Total Time of Release	15.3	21.9	19.9	14.4	15.7
Percent of Technical Specification Limit	1.10E+01	1.37E-01	7.00E-01	2.86E-02	4.74E-01
Average Rate of Release (μ Ci/sec)	9.90E+02	1.23E+01	6.18E+01	2.45E+00	3.93E+01

Release No.	372	373	374	375	376
Date	9/12/79	9/18/79	9/21/79	9/26/79	10/2/79
Total Time of Release	22.0	20.5	20.2	21.1	21.12
Percent of Technical Specification Limit	8.73E-01	7.87E-02	9.53E-02	2.27E-02	1.17E-02
Average Rate of Release (μ Ci/sec)	7.76E+01	6.45E+00	7.84E+00	1.53E+00	8.76E-01

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TABLE 2.2 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH GASEOUS RELEASES

Release No.	377	378	379	380	381
Date	10/8/79	10/12/79	10/15/79	10/17/79	10/20/79
Total Time of Release	21.08	19.47	15.32	27.17	16.23
Percent of Technical Specification Limit	8.98E-03	3.60E-03	4.96E-02	1.60E-01	7.87E-02
Average Rate of Release (μ Ci/sec)	5.48E-01	2.35E-01	3.39E+00	1.39E+01	6.98E+00

Release No.	382	383	384	385	386
Date	10/26/79	11-2-79	11-7-79	11-9-79	11-14-79
Total Time of Release	21.05	21.17	20.87	16.93	19.30
Percent of Technical Specification Limit	7.12E-02	1.12E-02	3.68E-03	4.60E-02	5.67E-03
Average Rate of Release (μ Ci/sec)	5.86E+00	9.91E-01	2.76E-01	2.86E+00	3.90E-01

Release No.	387	388	389	390	391
Date	11-16-79	11-19-79	11-23-79	11-26-79	12-3-79
Total Time of Release	27.28	15.97	16.38	19.50	19.60
Percent of Technical Specification Limit	1.50E-03	5.07E-03	1.81E-02	3.74E-02	1.27E-02
Average Rate of Release (μ Ci/sec)	9.70E-02	3.19E-01	1.50E+00	2.81E+00	1.02E+00

TABLE 2.2 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

SYNOPSIS OF BATCH GASEOUS RELEASES

Release No.	392	393	394	395	396
Date	12-8-79	12-15-79	12-20-79	12-24-79	12-27-79
Total Time of Release	17.93	19.42	19.83	18.87	15.48
Percent of Technical Specification Limit	3.13E-03	8.52E-03	4.38E-03	3.06E-03	4.39E-03
Average Rate of Release (μ Ci/sec)	2.07E-01	5.19E-01	2.63E-01	1.84E-01	2.64E-01

Release No.	397				
Date	12-29-79				
Total Time of Release	13.75				
Percent of Technical Specification Limit	2.90E-03				
Average Rate of Release (μ Ci/sec)	1.74E-01				

Release No.					
Date					
Total Time of Release					
Percent of Technical Specification Limit					
Average Rate of Release (μ Ci/sec)					

TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO.	347	DATE	7/3/79	STABILITY CONDITION E										RELEASE DURATION	17.7	
AT START OF RELEASE																
Wind Direction	H	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)			3.3				6.5				8.5		2.3		3.3	
% of Time Wind was From the Direction			15.8				21.1				21.1		21.1		15.8	5.3

RELEASE NO.	348	DATE	7/6/79	STABILITY CONDITION D										RELEASE DURATION		15.9
AT START OF RELEASE																
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (mph)			3.0		5.0		2.7	5.5				3.0	2.0	1.0		
% of Time Wind was From the Direction			5.9		11.8		35.3	11.8				11.8	5.9	5.9		11.8

RELEASE NO	349	DATE	7/9/79	STABILITY CONDITION F										RELEASE DURATION	15.5	
AT START OF RELEASE																
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)	2.0	3.7	4.7	12.4	13.5	12.1	8.3	2.6	2.0	5.4	6.8	5.4	5.1	3.3	2.7	2.6
% of Time Wind was From the Direction	5.1	6.0	4.3	6.1	5.9	8.2	1.4	0.2	0.2	6.6	13.6	3.9	13.4	4.4	3.5	4.3
																12.9

RELEASE NO.	350	DATE	7/10/79	STABILITY CONDITION D										RELEASE DURATION	16.6	
AT START OF RELEASE																
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)	10.0	9.1	6.8	6.6	6.5	0	3.5	3.1	5.2	2.4	2.4	4.4	4.0	4.1	5.9	5.4
% of Time Wind was From the Direction	7.7	17.3	25.6	19.6	3.5	0	0.8	1.3	0.5	0.2	0.9	3.5	3.2	1.6	3.5	6.5
																4.0

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TABLE 2.3 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 351		DATE 7/13/79		STABILITY CONDITION A										RELEASE DURATION 17.2			
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.	
Avg. Wind Velocity (MPH)	4.9	6.4	9.8	4.2	0	0	0	0	0	5.8	6.8	9.0	10.9	10.9	5.6	2.4	
% of Time Wind was From the Direction	0.2	0.4	0.4	0.5	0	0	0	0	0	3.5	21.6	23.3	24.7	18.3	4.0	0.2	2.7

RELEASE NO.	352	DATE	7/16/79	STABILITY CONDITION										D	RELEASE DURATION			14.9
AT START OF RELEASE																		
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.		
Avg. Wind Velocity (mph)	7.2	8.4	9.3	11.0	9.3	8.2	5.9	3.3	4.6	6.8	12.4	6.6	6.5	6.5	4.8	3.9		
% of Time Wind was From the Direction	4.5	19.8	11.2	12.8	11.6	5.0	1.6	0.6	0.6	0.9	4.3	3.7	5.3	2.0	3.7	2.5	9.5	

RELEASE NO.	353	DATE	7/23/79	STABILITY CONDITION										D	RELEASE DURATION	18.1
AT START OF RELEASE																
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)	2.0		3.0		2.7		1.5		2.0		3.3		2.0		2.7	
% of Time Wind was From the Direction	5.0		5.0		15.0		10.0		15.0		25.0		15.0			

RELEASE NO.	354*	DATE	7/23/79	STABILITY CONDITION										D	RELEASE DURATION	16.5
AT START OF RELEASE																
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)																
% of Time Wind was From the Direction																

* Not obtained

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 355 DATE 7/25/79 STABILITY CONDITION D RELEASE DURATION 13.9
AT START OF RELEASE

Wind Direction	H	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	11.1	9.3	5.7	4.4	6.4	5.6	8.2	7.3	10.6	9.3	1.7	3.8	6.3	14.2	17.4	14.1	
% of Time Wind was From the Direction	8.1	8.8	5.4	11.6	9.0	3.0	4.6	2.1	4.3	0.5	0.3	0.6	13.0	10.6	9.1	6.3	2.5

RELEASE NO. 356 DATE 7/23/79 STABILITY CONDITION D RELEASE DURATION 17.3
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.7	6.1	6.0	10.0	12.2	12.8	6.5	7.0	7.2	7.1	7.5	7.3	5.0	8.7	6.6	5.5	
% of Time Wind was From the Direction	7.5	7.8	4.2	5.2	7.4	5.1	1.8	2.9	5.0	5.1	11.1	9.2	3.7	7.5	6.2	3.8	6.1

RELEASE NO. 357 DATE 7/30/79 STABILITY CONDITION D RELEASE DURATION 17.0
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	9.0	6.6	4.1	3.9	2.7	3.7	4.1	14.1	20.3	10.2	3.3	2.5	8.1	9.0	8.2	8.8	
% of Time Wind was From the Direction	7.3	6.7	4.8	3.5	2.1	2.6	4.9	1.8	10.1	5.2	8.4	8.2	4.0	6.6	4.7	8.3	10.4

RELEASE NO. 358 DATE 8/1/79 STABILITY CONDITION D RELEASE DURATION 13.9
AT START OF RELEASE

Wind Direction	H	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	10.6	6.9	4.5	6.1	6.9	6.6	8.5	6.0	15.4	12.9	7.3	8.1	6.7	6.2	4.2	11.8	
% of Time Wind was From the Direction	16.2	15.0	8.6	2.9	1.5	1.7	1.1	0.5	0.7	2.1	1.7	6.8	7.2	5.5	5.0	9.4	13.7

TABLE 2.3 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

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TABLE 2.3 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO.	359	DATE	8/3/79	STABILITY CONDITION										D	RELEASE DURATION				15.0
AT START OF RELEASE																			
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.		
Avg. Wind Velocity (MPH)	3.8	4.0				2.0	2.0	1.0							4.5				
% of Time Wind was From the Direction	25.0	6.3				6.3	6.3	6.3							37.5		12.5		

RELEASE NO.		360		DATE		8/6/79		STABILITY CONDITION				C		RELEASE DURATION				15.6	
AT START OF RELEASE																			
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.		
Avg. Wind Velocity (MPH)	4.7	7.4	8.1	10.3	2.8	2.1	2.9	3.4	10.7	11.1	6.7	3.7	3.1	3.5	4.5	4.1			
% of Time Wind was From the Direction	6.3	8.3	19.8	4.7	0.8	0.7	0.1	0.2	5.6	14.7	2.7	4.2	8.6	7.8	4.4	2.6	8.1		

RELEASE NO. 361		DATE 8/7/79		STABILITY CONDITION				D		RELEASE DURATION 14.3							
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)	15.1	12.2	9.2	3.8	5.4	7.7	1.3	4.8	7.4	5.5	4.0	5.0	4.9	5.8	6.5	7.7	
% of Time Wind was From the Direction	20.2	12.1	7.1	1.7	0.5	0.2	0.1	0.5	1.0	7.2	5.0	10.6	5.3	1.5	3.9	10.4	12.6

RELEASE NO. 362		DATE 8/8/79		STABILITY CONDITION D										RELEASE DURATION 17.3			
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	7.5	14.6	12.0	8.3	6.8	3.1	6.0	8.1	8.5	11.5	5.3	5.6	2.2	2.8	6.2	3.9	
% of Time Wind was From the Direction	2.6	16.0	14.7	7.7	1.7	0.9	3.9	6.2	7.3	6.7	3.7	16.6	3.7	0.6	0.2	0.7	6.4

TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

RELEASE NO.	DATE	8/10/79	STABILITY CONDITION F										RELEASE DURATION 14.1				
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	10.0	9.9	7.4	3.4	6.3	6.4	4.8	2.7	3.4	6.5	6.3	4.5	4.1	4.8	4.2	4.2	12.6
% of Time Wind was From the Direction	9.8	9.7	8.1	2.3	0.5	0.4	0.9	1.3	1.6	10.7	21.4	4.6	1.7	2.0	2.8	7.3	
RELEASE NO.	DATE	8/13/79	STABILITY CONDITION D										RELEASE DURATION 14.1				
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	3.9	3.9	3.3	2.6	6.9	8.3	7.6	4.4	2.9	4.0	4.7	5.0	8.0	8.7	4.3	2.7	
% of Time Wind was From the Direction	4.8	3.7	2.7	1.0	10.0	11.6	7.6	0.8	1.0	1.2	2.7	4.8	14.1	14.4	4.1	2.6	12.9
RELEASE NO.	DATE	8/15/79	STABILITY CONDITION D										RELEASE DURATION 15.0				
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	4.8	4.4	3.4	2.5	2.4	2.6	7.5	6.6	6.3	6.0	2.0	2.0	3.0	4.2	8.3	7.4	
% of Time Wind was From the Direction	8.1	11.3	7.1	5.7	7.9	2.0	2.0	1.7	1.6	1.1	1.1	0.8	5.2	8.9	18.3	9.8	6.8
RELEASE NO.	DATE	8/17/79	STABILITY CONDITION F										RELEASE DURATION 15.4				
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	8.6	7.6	7.4	12.1	9.0	4.6	6.7	12.1	8.8	10.7	7.7	4.1	4.5	4.0	5.0	5.1	
% of Time Wind was From the Direction	10.7	12.9	15.3	11.7	3.9	1.8	1.4	0.1	3.0	17.0	7.4	3.7	1.5	1.1	1.6	2.2	4.3

TABLE 2.3 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

RELEASE NO.	367	DATE	8/20/79	STABILITY CONDITION D										RELEASE DURATION				12.2
AT START OF RELEASE																		
Wind Direction	H	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.	
Avg. Wind Velocity (MPH)	3.5	2.6	2.6	2.0	2.4	2.0	2.3	2.1	2.5	5.4	4.7	3.4	2.7	3.7	3.3	3.5	18.3	
% of Time Wind was From the Direction	4.2	3.0	4.5	4.1	4.0	3.9	1.1	1.0	6.6	14.0	5.3	6.0	2.3	7.1	7.6	6.5	18.3	

RELEASE NO.		DATE		8/28/79		STABILITY CONDITION										D		RELEASE DURATION				21.9													
						AT START OF RELEASE																													
Wind Direction		N		NNE		NE		ENE		E		ESE		SE		SSE		S		SSW		SW		WSW		W		WNW		NW		NNW		ZERO WIND VEL.	
		9.0		3.3		2.9		8.0		6.6		4.3		4.5		3.8		0		0		0		0		0		0		0		0		13.7	
Avg. Wind Velocity (MPH)		9.0		3.3		2.9		8.0		6.6		4.3		4.5		3.8		0		0		0		0		0		0		0		0		13.7	
% of Time Wind was From the Direction		5.5		10.1		10.7		12.4		17.1		15.2		10.8		4.4		0		0		0		0		0		0		0		0		13.7	

RELEASE NO. 369		DATE 9/1/79		STABILITY CONDITION D										RELEASE DURATION 19.9			
		AT START OF RELEASE															
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0.0	4.3	7.9	3.6	2.0	0.0	0	0	0	0	0	0	0	0	0	0	0.1
% of Time Wind was From the Direction	0.0	0.3	6.2	93.2	0.2	0	0	0	0	0	0	0	0	0	0	0	

RELEASE NO.	370	DATE	9/4/79	STABILITY CONDITION										D	RELEASE DURATION				14.4
AT START OF RELEASE																			
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.		
Avg. Wind Velocity (MPH)	6.1	3.7	4.4	4.1	3.1	5.0	7.6	6.4	0	0	0	0	0	0	0	0	9.4		
% of Time Wind was From the Direction	1.5	8.1	12.0	7.0	3.6	27.3	22.2	8.8	0	0	0	0	0	0	0	0			

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TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO.	371	DATE	9/6/79	STABILITY CONDITION C										RELEASE DURATION	15.7		
				AT START OF RELEASE													
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	4.6	4.5	4.6	2.8	11.4	4.9	2.5	5.0	0	0	0	0	0	0	0	0	0
% of Time Wind was From the Direction	4.9	16.4	20.2	9.6	17.0	9.8	4.2	3.3	0	0	0	0	0	0	0	0	14.3

RELEASE NO. 372		DATE 9/12/79		STABILITY CONDITION B										RELEASE DURATION 22.0			
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	7.2	6.1	6.1	0	8.6	2.0	4.5	6.0	5.5	5.7	6.4	7.1	8.3	9.4	6.9	4.3	1.6
% of Time Wind was From the Direction	2.3	7.8	5.7	0	0.1	0.1	0.3	1.3	10.3	17.9	19.2	9.1	8.1	8.6	4.9	2.3	1.6

RELEASE NO. 373		DATE 9/18/79		STABILITY CONDITION D										RELEASE DURATION 20.5			
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity(MPH)	5.4	9.2	5.6	3.9	5.5	5.1	6.6	5.3	2.7	2.7	2.6	2.6	3.1	8.6	7.6	14.6	9.0
% of Time Wind was From the Direction	3.3	12.9	2.6	2.1	0.2	2.2	2.7	1.2	0.4	0.2	0.7	3.2	3.5	10.6	19.7	25.2	9.0

RELEASE NO. 374		DATE 9/21/79		STABILITY CONDITION B										RELEASE DURATION 20.2			
		AT START OF RELEASE															
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	9.1	8.1	8.3	10.5	0	0	13.5	3.3	6.0	7.7	5.9	4.9	5.0	5.8	9.7	9.4	3.4
% of Time Wind was From the Direction	4.2	5.7	1.2	0.1	0	0	0.1	0.1	4.9	21.5	29.0	11.8	5.6	3.3	4.6	4.2	3.4

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TABLE 2.1 - RADIOACTIVE GASEOUS EFFLUENT RELEASES FOR 1979

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 375	DATE 9/26/79	STABILITY CONDITION D														RELEASE DURATION 21.1	
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	14.3	8.9	6.3	4.4	4.7	3.2	4.4	4.1	4.5	4.0	5.5	6.7	5.5	3.3	4.8	8.1	
% of Time Wind was From the Direction	5.0	10.4	14.7	4.7	1.6	1.4	2.1	2.6	5.4	7.3	8.2	10.1	8.1	4.7	2.2	2.2	8.9

RELEASE NO. 376	DATE 10/2/79	STABILITY CONDITION C														RELEASE DURATION 22.12	
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	16.1	18.1	12.3	3.1	2.4	2.8	4.1	3.8	10.1	9.6	3.3	3.2	5.2	11.5	10.9	4.2	
% of Time Wind was From the Direction	2.7	25.0	8.1	1.3	2.2	1.6	1.9	2.0	9.0	12.5	3.3	1.4	1.3	10.3	7.3	1.4	8.5

RELEASE NO. 377	DATE 10/8/79	STABILITY CONDITION C														RELEASE DURATION 21.08	
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0	4.5	3.3	0	0	0	0	0	13.5	17.5	13.8	10.0	7.8	3.7	5.4	3.6	
% of Time Wind was From the Direction	0	0.1	0.1	0	0	0	0	0	3.7	37.0	33.8	20.4	2.8	0.2	0.9	0.5	0.4

RELEASE NO. 378	DATE 10/12/79	STABILITY CONDITION D														RELEASE DURATION 19.47	
AT START OF RELEASE																	
Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.4	6.7	11.0	11.8	9.0	2.8	3.9	2.9	3.7	3.4	3.3	2.2	3.1	3.7	3.5	3.1	
% of Time Wind was From the Direction	1.4	10.7	12.8	21.8	4.6	0.9	2.9	2.7	6.0	8.5	7.7	3.5	3.0	1.6	2.2	1.4	7.9

*Wind direction indicator was off by 180°

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 379 DATE 10/15/79 STABILITY CONDITION D RELEASE DURATION 15.32
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	7.6	10.6	5.2	3.8	7.9	5.9	5.8	5.6	4.9	3.8	5.1	7.0	3.8	5.6	5.6	4.1	
% of Time Wind was From the Direction	1.8	14.3	3.4	3.8	14.3	7.7	6.8	2.9	2.3	2.3	5.8	8.9	2.4	6.2	6.8	3.0	7.0

RELEASE NO. 380 DATE 10/17/79 STABILITY CONDITION D RELEASE DURATION 27.17
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.2	5.2	3.3	4.8	3.9	2.9	3.8	3.3	4.6	4.7	3.6	3.5	6.6	9.3	8.3	4.6	
% of Time Wind was From the Direction	2.7	5.7	2.5	4.3	2.8	2.7	3.1	2.1	3.8	6.9	9.1	8.1	6.6	17.3	10.4	2.9	8.7

RELEASE NO. 381 DATE 10/20/79 STABILITY CONDITION C RELEASE DURATION 16.23
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	1.9	2.6	3.2	3.6	4.1	3.4	6.5	19.8	22.2	11.3	7.0	5.8	6.9	6.9	1.9	2.2	
% of Time Wind was From the Direction	0.1	0.6	2.1	0.4	1.3	1.4	1.0	4.8	30.0	15.4	13.2	9.8	8.8	3.0	1.4	0.2	6.3

RELEASE NO. 382 DATE 10/26/79 STABILITY CONDITION C RELEASE DURATION 21.05
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	13.2	18.9	18.7	6.6	4.4	2.6	3.6	3.8	3.9	6.3	5.8	13.0	24.4	14.5	8.4	11.3	
% of Time Wind was From the Direction	8.0	16.9	5.9	2.2	2.7	0.4	1.5	1.2	1.7	3.7	5.6	7.4	19.9	4.5	6.5	7.7	4.0

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 383 DATE 11-2-79 STABILITY CONDITION D AT START OF RELEASE RELEASE DURATION 21.17

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0	0	1.7	1.5	2.7	4.8	6.8	6.1	7.9	5.3	8.4	4.7	5.0	4.3	2.0	0	
% of Time Wind was From the Direction	0	0	0.2	0.2	0.6	1.1	11.1	10.7	10.9	26.3	24.6	4.0	3.9	2.8	0.6	0	2.9

RELEASE NO. 384 DATE 11-7-79 STABILITY CONDITION D AT START OF RELEASE RELEASE DURATION 20.87

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.7	6.9	6.1	8.0	6.9	4.4	4.3	3.6	4.5	8.0	8.8	4.4	2.1	2.0	3.8	3.6	
% of Time Wind was From the Direction	2.9	6.7	6.8	4.5	5.9	2.4	0.9	2.9	4.9	16.6	23.3	6.5	1.6	1.0	3.1	3.9	6.1

RELEASE NO. 385 DATE 11-9-79 STABILITY CONDITION D AT START OF RELEASE RELEASE DURATION 16.93

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	2.5	1.2	4.8	4.9	5.3	5.0	0	0	0	6.8	8.0	6.0	4.5	4.2	2.8	2.0	
% of Time Wind was From the Direction	0.2	0.2	0.7	2.6	1.4	0.6	0	0	0	6.0	33.2	9.7	7.3	11.3	6.5	5.0	15.1

RELEASE NO. 386 DATE 11-14-79 STABILITY CONDITION D AT START OF RELEASE RELEASE DURATION 19.30

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	2.5	2.4	0	0	0	0	0	2.5	3.0	5.5	6.1	5.9	1.8	0	0	2.3	
% of Time Wind was From the Direction	0.1	0.6	0	0	0	0	0	0.5	2.7	30.8	46.0	15.3	0.3	0	0	0.1	3.6

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 387 DATE 11-16-79 STABILITY CONDITION D RELEASE DURATION 27.26
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	1.5	0	1.1	0	0	0	2.0	1.9	3.0	4.6	4.7	3.9	1.5	2.0	2.1	2.4	
% of Time Wind was From the Direction	0.1	0	0.2	0	0	0	0.3	1.3	4.6	18.1	38.6	7.0	0.9	1.7	3.3	5.4	18.5

RELEASE NO. 388 DATE 11-19-79 STABILITY CONDITION D RELEASE DURATION 15.97
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0	0	0	0	0	0	0	0	0	0	4.3	11.6	12.2	9.0	0	0	
% of Time Wind was From the Direction	0	0	0	0	0	0	0	0	0	0	0.1	86.9	12.0	1.0	0	0	0

RELEASE NO. 389 DATE 11-23-79 STABILITY CONDITION D RELEASE DURATION 16.38
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	3.8	4.0	3.3	3.0	3.6	4.8	3.9	6.5	6.8	6.8	8.2	3.1	2.7	2.4	3.1	4.8	
% of Time Wind was From the Direction	0.7	2.6	2.0	2.7	2.9	3.5	2.7	9.5	16.2	17.7	22.0	4.5	2.0	1.7	1.9	0.4	6.6

RELEASE NO. 390 DATE 11-26-79 STABILITY CONDITION D RELEASE DURATION 19.50
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.0	6.2	7.0	8.9	6.3	4.9	5.0	5.1	6.3	5.4	6.7	5.5	5.6	2.6	3.9	4.7	
% of Time Wind was From the Direction	0.8	7.8	20.4	15.1	1.9	4.8	7.0	11.5	14.2	7.4	2.8	0.8	0.8	0.5	1.0	0.5	2.5

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 391 DATE 12-3-79 STABILITY CONDITION B RELEASE DURATION 19.60
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	2	1	0	0	2	0	0	6	7	4	2	2	2	0	1	0	
% of Time Wind was From the Direction	13.6	4.5	0	0	13.6	0	0	4.5	9.1	27.3	9.1	4.5	9.1	0	4.5	0	0

RELEASE NO. 392 DATE 12-8-79 STABILITY CONDITION E RELEASE DURATION 17.93
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	2.6	2.2	2.2	2.6	2.6	2.0	2.3	1.8	2.3	3.7	4.9	5.3	2.7	2.5	2.6	2.2	
% of Time Wind was From the Direction	1.1	1.3	3.3	3.9	1.5	2.3	2.5	3.5	3.2	10.3	17.5	16.2	4.2	5.3	4.4	0.9	18.5

RELEASE NO. 393 DATE 12-15-79 STABILITY CONDITION D RELEASE DURATION 19.42
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	6.5	8.5	14.7	17.5	12.4	5.6	7.9	7.8	6.7	7.8	10.9	11.2	15.1	12.7	7.8	6.2	
% of Time Wind was From the Direction	0.6	2.9	11.4	25.4	4.8	0.4	0.2	0.3	2.1	2.9	8.0	13.2	18.9	6.1	1.2	0.6	0.7

RELEASE NO. 394 DATE 12-20-79 STABILITY CONDITION D RELEASE DURATION 19.83
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	4.0	4.3	4.6	4.2	3.5	2.3	3.2	3.6	3.6	4.4	7.1	4.3	3.0	2.9	3.0	3.6	
% of Time Wind was From the Direction	0.8	7.0	16.4	12.8	5.1	0.2	0.8	1.8	6.8	11.7	15.2	4.4	3.4	0.9	2.5	1.2	8.7

5. The following is a tabulation of meteorological conditions during periods of gaseous effluent release:

RELEASE NO. 395 DATE 12-24-79 STABILITY CONDITION D RELEASE DURATION 18.87
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	5.3	6.4	7.1	5.7	5.4	3.4	4.7	4.4	4.7	5.1	5.0	4.6	3.2	2.4	3.1	3.4	
% of Time Wind was From the Direction	3.6	8.1	11.3	6.8	3.9	0.9	1.0	1.2	1.7	10.7	17.6	12.5	2.6	3.0	2.9	4.3	7.5

RELEASE NO. 396 DATE 12-27-79 STABILITY CONDITION D RELEASE DURATION 15.48
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0	0	0	0	0	0	7.9	9.5	9.6	8.2	3.9	9.2	13.1	10.0	11.9	0	
% of Time Wind was From the Direction	0	0	0	0	0	0	1.7	21.5	20.7	28.7	5.9	5.2	13.8	2.1	0.1	0	0.3

RELEASE NO. 397 DATE 12-29-79 STABILITY CONDITION D RELEASE DURATION 13.75
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)	0	0	0	0	0	0	0	0	0	3.9	4.7	2.4	1.4	0	0	0	
% of Time Wind was From the Direction	0	0	0	0	0	0	0	0	0	17.9	67.4	4.9	1.5	0	0	0	8.0

RELEASE NO. _____ DATE _____ STABILITY CONDITION _____ RELEASE DURATION _____
AT START OF RELEASE

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	ZERO WIND VEL.
Avg. Wind Velocity (MPH)																	
% of Time Wind was From the Direction																	

POOR ORIGINAL

TABLE 3.1 - NON-RADIOLOGICAL EFFLUENT FOR 1979

MONTH		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	
SR NR 1.1 S		(5)	(4)	(4)	(5)	(4)	(4)	
Total) Million Gallons		61.74		58.04	50.81	68.55	67.05	
Released to the River.	(Average)	ppm Fe	.575	.180	.138	.196	0.271	.368
		ppm Cu	.34	.033	.020	.020	.0065	.013
		ppm Zn	.377	.199	.167	.049	0.044	.050
		ppm Cr ⁺⁶	.006	.004	.001	.004	0.0045	.006
		ppm P	.57	1.784	1.104	2.38	1.7	2.43
		ppm pH	8.08	7.93	7.82	8.06	7.8	7.68
		ppm TDS	478	1173	824	1095	658	886
	(Maximum)	ppm Fe	1.48	.383	.392	.477	0.413	.485
		ppm Cu	.068	.045	.023	.033	0.008	.018
		ppm Zn	1.31	.550	.485	.067	0.052	.058
		ppm Cr ⁺⁶	.013	.005	.004	.006	0.006	.015
		ppm P	1.58	2.86	2.051	2.646	2.030	3.18
		Max pH	8.63	8.35	7.95	8.9	8.9	7.97
		Min pH	6.69	7.55	7.65	7.1	7.0	7.35
		ppm TDS	478	1173	1232	1955	1086	1070
		ppm 321	0.0	0.0	0.0	0.0	0.257	0
		ppm 71-D5	0.0	8.84	< 1	0.0	0.059	0
		ppm Cl ₂	0.0	.50	1.15	.5	0.59	.10
SR NR 1.2 S		(5)	(4)	(4)	(5)	(4)	(4)	
Farm Pond Effluent To Latte-Temp.	*F Max	85	76	72	62	43	41	
	*F Avg	77	71	68	56	42	39	
SK NR 1.3 M (1) Note		(13)	(13)	(13)	(14)	(13)	(13)	
(Total)	(Gal)	938,496	1,937,476	513,609	542,976	630,109	2,043,201	
Sump Effluent	(Average)	ppm Fe	7.076	2.933	.468	.783	.540	.97
		ppm Cu	1.188	.021	.024	.114	.073	.13
		ppm Zn	2.796	2.196	.513	.631	.331	.33
		ppm Cr ⁺⁶	.026	.004	.004	.005	.003	.046
		ppm P	.815	1.44	1.602	1.506	1.167	2.22
		ppm TDS	1381	1013	1020	1336	515	538
		pH	7.24	7.14	6.88	7.61	7.15	7.95

NOTE 1: Value in parenthesis indicates the number of measurements made.

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 70179. TO 73179.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	9. 81E-09	1. 43E-08	4. 26E-05	MAXIMUM
	6. 71E-09	3. 37E-09	1. 29E-05	MINIMUM
	8. 03E-09(5)	7. 18E-09(5)	2. 50E-05(5)	AVERAGE
.....				
COOLING TOWER BLOWDOWN				
	2. 11E-08	2. 72E-08	2. 56E-03	MAXIMUM
	6. 46E-09	3. 47E-09	5. 40E-07	MINIMUM
	9. 90E-09(19)	1. 04E-08(19)	2. 22E-04(19)	AVERAGE
.....				
REACTOR BUILDING SUMP (EFFLUENT)				
	3. 02E-08	8. 20E-09	6. 10E-04	MAXIMUM
	6. 04E-09	2. 67E-09	4. 34E-05	MINIMUM
	9. 90E-09(15)	3. 88E-09(15)	1. 66E-04(15)	AVERAGE
.....				
TURBINE BUILDING SUMP (EFFLUENT)				
	3. 88E-08	4. 54E-08	6. 02E-05	MAXIMUM
	6. 60E-09	4. 29E-09	3. 43E-06	MINIMUM
	1. 14E-08(13)	1. 67E-08(13)	1. 92E-05(13)	AVERAGE
.....				
SYSTEM 21				
	8. 25E-09	4. 51E-09	7. 99E-05	MAXIMUM
	6. 04E-09	2. 69E-09	6. 43E-06	MINIMUM
	6. 78E-09(8)	3. 66E-09(8)	3. 09E-05(8)	AVERAGE
.....				
SYSTEM 31				
	2. 08E-08	4. 42E-09	1. 12E-04	MAXIMUM
	5. 70E-09	2. 67E-09	9. 98E-06	MINIMUM
	8. 84E-09(6)	3. 15E-09(6)	5. 11E-05(6)	AVERAGE
.....				
SYSTEM 41				
	3. 45E-08	1. 08E-08	5. 86E-07	MAXIMUM
	3. 45E-08	1. 08E-08	5. 86E-07	MINIMUM
	3. 45E-08(1)	1. 08E-08(1)	5. 86E-07(1)	AVERAGE
.....				
SYSTEM 42				
	8. 76E-09	8. 58E-09	5. 86E-07	MAXIMUM
	8. 76E-09	8. 58E-09	5. 86E-07	MINIMUM
	8. 76E-09(1)	8. 58E-09(1)	5. 86E-07(1)	AVERAGE
.....				
SYSTEM 46				
	2. 01E-08	4. 49E-09	3. 29E-05	MAXIMUM
	6. 88E-09	2. 69E-09	2. 83E-05	MINIMUM
	1. 19E-08(8)	3. 65E-09(8)	3. 10E-05(8)	AVERAGE
.....				
SYSTEM 47				
	2. 85E-08	4. 49E-09	1. 90E-04	MAXIMUM
	6. 04E-09	2. 68E-09	1. 76E-04	MINIMUM
	9. 32E-09(8)	3. 65E-09(8)	1. 83E-04(8)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE THE NUMBER OF SAMPLES REPRESENTED BY THE AVERAGE VALUE.

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 80179. TO 83179.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	2. 08E-08	1. 53E-08	1. 67E-05	MAXIMUM
	8. 64E-09	3. 73E-09	6. 10E-07	MINIMUM
	1. 53E-08(4)	9. 73E-09(4)	6. 72E-06(4)	AVERAGE
.....				
COOLING TOWER BLOWDOWN				
	3. 96E-08	3. 51E-08	1. 43E-03	MAXIMUM
	6. 72E-09	3. 66E-09	6. 10E-07	MINIMUM
	1. 76E-08(30)	1. 48E-08(30)	1. 51E-04(30)	AVERAGE
.....				
REACTOR BUILDING SUMP (EFFLUENT)				
	2. 09E-08	5. 15E-09	3. 39E-03	MAXIMUM
	6. 40E-09	2. 58E-09	1. 39E-04	MINIMUM
	9. 47E-09(14)	3. 56E-09(14)	5. 28E-04(14)	AVERAGE
.....				
TURBINE BUILDING SUMP (EFFLUENT)				
	1. 74E-08	3. 36E-08	1. 07E-04	MAXIMUM
	6. 73E-09	3. 89E-09	2. 41E-05	MINIMUM
	9. 87E-09(13)	1. 32E-08(13)	5. 35E-05(13)	AVERAGE
.....				
SYSTEM 21				
	8. 76E-09	4. 01E-09	1. 75E-04	MAXIMUM
	6. 29E-09	2. 56E-09	5. 62E-05	MINIMUM
	7. 31E-09(10)	3. 00E-09(10)	1. 26E-04(10)	AVERAGE
.....				
SYSTEM 31				
	8. 11E-09	5. 28E-09	2. 29E-04	MAXIMUM
	5. 94E-09	2. 67E-09	1. 05E-04	MINIMUM
	6. 93E-09(6)	4. 16E-09(6)	1. 53E-04(6)	AVERAGE
.....				
SYSTEM 41				
	1. 64E-08	1. 18E-08	5. 42E-07	MAXIMUM
	1. 64E-08	1. 18E-08	5. 42E-07	MINIMUM
	1. 64E-08(1)	1. 18E-08(1)	5. 42E-07(1)	AVERAGE
.....				
SYSTEM 42				
	1. 44E-08	2. 15E-08	5. 42E-07	MAXIMUM
	1. 44E-08	2. 15E-08	5. 42E-07	MINIMUM
	1. 44E-08(1)	2. 15E-08(1)	5. 42E-07(1)	AVERAGE
.....				
SYSTEM 46				
	7. 35E-08	3. 87E-09	6. 55E-05	MAXIMUM
	7. 78E-09	2. 55E-09	2. 94E-05	MINIMUM
	2. 85E-08(10)	2. 86E-09(10)	3. 93E-05(10)	AVERAGE
.....				
SYSTEM 47				
	1. 46E-08	3. 87E-09	2. 25E-04	MAXIMUM
	5. 91E-09	2. 55E-09	3. 74E-05	MINIMUM
	7. 89E-09(10)	2. 87E-09(10)	1. 63E-04(10)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE THE NUMBER OF SAMPLES REPRESENTED BY THE AVERAGE VALUE.

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 90179. TO 93079.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	7. 59E-09	1. 02E-08	3. 66E-06	MAXIMUM
	7. 59E-09	1. 02E-08	3. 66E-06	MINIMUM
	7. 59E-09(1)	1. 02E-08(1)	3. 66E-06(1)	AVERAGE
COOLING TOWER BLOWDOWN				
	3. 85E-08	3. 89E-08	6. 35E-04	MAXIMUM
	1. 17E-08	5. 77E-09	7. 94E-07	MINIMUM
	1. 68E-08(14)	1. 46E-08(14)	1. 44E-04(14)	AVERAGE
REACTOR BUILDING SUMP (EFFLUENT)				
	1. 23E-08	4. 14E-09	3. 75E-04	MAXIMUM
	6. 87E-09	2. 30E-09	4. 75E-05	MINIMUM
	7. 58E-09(17)	3. 53E-09(17)	1. 19E-04(17)	AVERAGE
TURBINE BUILDING SUMP (EFFLUENT)				
	1. 85E-08	2. 04E-08	9. 98E-05	MAXIMUM
	7. 18E-09	4. 73E-09	7. 32E-06	MINIMUM
	1. 05E-08(13)	1. 26E-08(13)	2. 78E-05(13)	AVERAGE
SYSTEM 21				
	1. 28E-08	4. 00E-09	8. 09E-05	MAXIMUM
	7. 14E-09	2. 84E-09	1. 50E-05	MINIMUM
	8. 39E-09(8)	3. 39E-09(8)	4. 48E-05(8)	AVERAGE
SYSTEM 31				
	1. 27E-08	3. 94E-09	5. 83E-05	MAXIMUM
	6. 41E-09	2. 85E-09	1. 28E-05	MINIMUM
	8. 57E-09(4)	3. 38E-09(4)	3. 70E-05(4)	AVERAGE
SYSTEM 41				
	1. 46E-08	1. 12E-08	5. 54E-07	MAXIMUM
	1. 46E-08	1. 12E-08	5. 54E-07	MINIMUM
	1. 46E-08(1)	1. 12E-08(1)	5. 54E-07(1)	AVERAGE
SYSTEM 42				
	1. 56E-08	3. 23E-08	1. 30E-06	MAXIMUM
	1. 56E-08	3. 23E-08	1. 30E-06	MINIMUM
	1. 56E-08(1)	3. 23E-08(1)	1. 30E-06(1)	AVERAGE
SYSTEM 46				
	1. 47E-08	3. 97E-09	7. 16E-05	MAXIMUM
	7. 06E-09	2. 85E-09	6. 58E-05	MINIMUM
	8. 31E-09(8)	3. 39E-09(8)	6. 92E-05(8)	AVERAGE
SYSTEM 47				
	1. 84E-08	3. 98E-09	1. 79E-04	MAXIMUM
	6. 42E-09	2. 86E-09	1. 53E-04	MINIMUM
	9. 96E-09(8)	3. 39E-09(8)	1. 66E-04(8)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE NUMBER OF SAMPLES REPRESENTED BY THE AVERAGE.

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 100179. TO 103179.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	1. 68E-08	1. 66E-08	3. 87E-05	MAXIMUM
	6. 95E-09	5. 24E-09	6. 61E-06	MINIMUM
	1. 16E-08(5)	9. 76E-09(5)	2. 12E-05(5)	AVERAGE
COOLING TOWER BLOWDOWN				
	5. 91E-08	4. 05E-08	2. 76E-03	MAXIMUM
	7. 66E-09	3. 92E-09	5. 75E-07	MINIMUM
	1. 87E-08(37)	1. 33E-08(37)	1. 05E-04(37)	AVERAGE
REACTOR BUILDING SUMP (EFFLUENT)				
	2. 18E-07	4. 66E-09	6. 41E-04	MAXIMUM
	5. 51E-09	2. 25E-09	1. 29E-04	MINIMUM
	1. 93E-08(22)	2. 58E-09(22)	3. 70E-04(22)	AVERAGE
TURBINE BUILDING SUMP (EFFLUENT)				
	2. 08E-08	4. 50E-08	8. 62E-05	MAXIMUM
	6. 75E-09	3. 64E-09	1. 23E-05	MINIMUM
	1. 24E-08(14)	2. 09E-08(14)	3. 90E-05(14)	AVERAGE
SYSTEM 21				
	7. 04E-09	2. 32E-09	2. 01E-04	MAXIMUM
	5. 51E-09	2. 17E-09	2. 69E-05	MINIMUM
	6. 33E-09(8)	2. 23E-09(8)	9. 45E-05(8)	AVERAGE
SYSTEM 31				
	7. 04E-09	3. 24E-09	1. 81E-04	MAXIMUM
	5. 88E-09	2. 17E-09	2. 24E-05	MINIMUM
	6. 43E-09(5)	2. 43E-09(5)	8. 17E-05(5)	AVERAGE
SYSTEM 41				
	1. 53E-08	1. 70E-08	5. 96E-07	MAXIMUM
	1. 53E-08	1. 70E-08	5. 96E-07	MINIMUM
	1. 53E-08(1)	1. 70E-08(1)	5. 96E-07(1)	AVERAGE
SYSTEM 42				
	5. 14E-08	5. 38E-08	5. 96E-07	MAXIMUM
	5. 14E-08	5. 38E-08	5. 96E-07	MINIMUM
	5. 14E-08(1)	5. 38E-08(1)	5. 96E-07(1)	AVERAGE
SYSTEM 46				
	1. 16E-08	3. 47E-09	7. 27E-05	MAXIMUM
	5. 52E-09	2. 17E-09	1. 96E-05	MINIMUM
	7. 29E-09(8)	2. 38E-09(8)	6. 39E-05(8)	AVERAGE
SYSTEM 47				
	7. 04E-09	2. 27E-09	1. 66E-04	MAXIMUM
	5. 51E-09	2. 17E-09	6. 57E-05	MINIMUM
	6. 33E-09(8)	2. 22E-09(8)	9. 73E-05(8)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE NUMBER OF SAMPLES REPRESENTED BY

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 110179. TO 113079.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	1. 06E-08	5. 84E-09	1. 09E-05	MAXIMUM
	6. 87E-09	3. 52E-09	5. 37E-06	MINIMUM
	8. 89E-09(3)	4. 90E-09(3)	7. 65E-06(3)	AVERAGE
COOLING TOWER BLOWDOWN				
	1. 83E-08	1. 05E-08	5. 59E-05	MAXIMUM
	5. 84E-09	3. 09E-09	5. 10E-07	MINIMUM
	8. 67E-09(16)	6. 02E-09(16)	1. 06E-05(16)	AVERAGE
REACTOR BUILDING SUMP (EFFLUENT)				
	3. 61E-08	2. 20E-08	3. 34E-04	MAXIMUM
	5. 46E-09	2. 25E-09	9. 80E-06	MINIMUM
	1. 28E-08(24)	4. 64E-09(24)	8. 93E-05(24)	AVERAGE
TURBINE BUILDING SUMP (EFFLUENT)				
	8. 80E-09	1. 90E-08	1. 86E-05	MAXIMUM
	6. 01E-09	2. 46E-09	5. 10E-07	MINIMUM
	6. 98E-09(12)	8. 32E-09(12)	4. 28E-06(12)	AVERAGE
SYSTEM 21				
	7. 28E-09	3. 31E-09	6. 11E-04	MAXIMUM
	5. 94E-09	2. 28E-09	9. 51E-07	MINIMUM
	6. 88E-09(10)	2. 46E-09(10)	9. 70E-05(10)	AVERAGE
SYSTEM 31				
	7. 19E-09	2. 32E-09	1. 08E-05	MAXIMUM
	5. 46E-09	2. 27E-09	5. 31E-07	MINIMUM
	6. 28E-09(4)	2. 30E-09(4)	5. 44E-06(4)	AVERAGE
SYSTEM 41				
	6. 87E-09	5. 84E-09	5. 34E-07	MAXIMUM
	6. 87E-09	5. 84E-09	5. 34E-07	MINIMUM
	6. 87E-09(1)	5. 84E-09(1)	5. 34E-07(1)	AVERAGE
SYSTEM 42				
	1. 10E-08	1. 57E-08	5. 34E-07	MAXIMUM
	1. 10E-08	1. 57E-08	5. 34E-07	MINIMUM
	1. 10E-08(1)	1. 57E-08(1)	5. 34E-07(1)	AVERAGE
SYSTEM 46				
	1. 38E-08	5. 80E-09	7. 65E-05	MAXIMUM
	5. 94E-09	2. 29E-09	2. 72E-05	MINIMUM
	8. 44E-09(10)	2. 78E-09(10)	5. 65E-05(10)	AVERAGE
SYSTEM 47				
	7. 19E-09	6. 93E-09	1. 20E-04	MAXIMUM
	5. 94E-09	2. 27E-09	7. 06E-05	MINIMUM
	6. 76E-09(10)	2. 78E-09(10)	9. 35E-05(10)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE NUMBER OF SAMPLES REPRESENTED BY THE AVERAGE.

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TABLE 4. 1

RADIOCHEMISTRY SUMMARY FROM 120179. TO 123179.

SYSTEM	BETA/GAMMA	ALPHA	TRITIUM	

FARM POND (EFFLUENT)				
	1. 01E-08	1. 24E-08	4. 50E-06	MAXIMUM
	6. 64E-09	6. 93E-09	5. 81E-07	MINIMUM
	8. 20E-09(3)	9. 25E-09(3)	2. 03E-06(3)	AVERAGE
COOLING TOWER BLOWDOWN				
	1. 84E-08	1. 22E-08	5. 06E-04	MAXIMUM
	6. 40E-09	3. 30E-09	5. 36E-07	MINIMUM
	9. 37E-09(11)	7. 00E-09(11)	7. 26E-05(11)	AVERAGE
REACTOR BUILDING SUMP (EFFLUENT)				
	1. 26E-08	8. 12E-09	3. 25E-04	MAXIMUM
	4. 97E-09	2. 22E-09	7. 35E-06	MINIMUM
	6. 81E-09(17)	2. 91E-09(17)	5. 56E-05(17)	AVERAGE
TURBINE BUILDING SUMP (EFFLUENT)				
	1. 76E-08	1. 87E-08	1. 06E-05	MAXIMUM
	5. 20E-09	4. 44E-09	1. 16E-06	MINIMUM
	9. 37E-09(12)	9. 77E-09(12)	3. 76E-06(12)	AVERAGE
SYSTEM 21				
	6. 21E-09	2. 30E-09	3. 43E-04	MAXIMUM
	5. 09E-09	2. 24E-09	5. 38E-06	MINIMUM
	5. 49E-09(5)	2. 28E-09(5)	1. 03E-04(5)	AVERAGE
SYSTEM 31				
	3. 14E-08	7. 12E-09	3. 84E-05	MAXIMUM
	5. 09E-09	2. 22E-09	1. 93E-06	MINIMUM
	1. 13E-08(5)	3. 47E-09(5)	1. 12E-05(5)	AVERAGE
SYSTEM 41				
	2. 61E-08	2. 33E-08	5. 91E-07	MAXIMUM
	2. 61E-08	2. 33E-08	5. 91E-07	MINIMUM
	2. 61E-08(1)	2. 33E-08(1)	5. 91E-07(1)	AVERAGE
SYSTEM 42				
	3. 06E-08	9. 86E-09	5. 35E-07	MAXIMUM
	3. 06E-08	9. 86E-09	5. 35E-07	MINIMUM
	3. 06E-08(1)	9. 86E-09(1)	5. 35E-07(1)	AVERAGE
SYSTEM 46				
	8. 71E-09	2. 30E-09	7. 63E-05	MAXIMUM
	5. 09E-09	2. 22E-09	2. 77E-05	MINIMUM
	6. 21E-09(8)	2. 26E-09(8)	4. 93E-05(8)	AVERAGE
SYSTEM 47				
	6. 21E-09	2. 30E-09	1. 17E-04	MAXIMUM
	5. 09E-09	2. 22E-09	7. 31E-05	MINIMUM
	5. 76E-09(8)	2. 26E-09(8)	9. 56E-05(8)	AVERAGE

NOTES:

1. ALL ACTIVITIES EXPRESSED IN UNITS OF UCI/ML.
2. () REPRESENTS THE NUMBER OF SAMPLES REPRESENTED BY THE AVERAGE VALUE.

TABLE 5.1 - SOLID WASTE (LOW LEVEL) FOR 1979

		UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Total Volume of Titanium From Hydrogen Getter									
1. Shipped	ft ³		0	0	0	0	0	0	0
Curies of Tritium									
2. Table 4.4, Item 1	Ci		0	0	0	0	0	0	0
Total Volume of Wastes (Not Getters) Shipped									
3. For Offsite Disposal	ft ³		0	0	0	0	0	0	0
Curies Involved in									
4. Table 4.4, Item 3	Ci		0	0	0	0	0	0	0
5. Description	Shipping Date	Ci	0	0	0	0	0	0	0
			0	0	0	0	0	0	0
Total Curies Involved in 6. Offsite Shipments		Ci	0	0	0	0	0	0	0

Note: 1.5E+09 means $1.5 \times 10^{+9}$; Similarly, 2.7E-07 means 2.7×10^{-7}