

SUPPLEMENTS TO PREVIOUS
SEMIANNUAL REPORTS

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I. DISCUSSION

Supplements to the Effluent and Waste Disposal Semiannual Reports are as follows:

<u>Report Period</u>	<u>Affected Pages</u>
January - June, 1985	Enclosure 1, Page 6
July - December, 1985	Enclosure 1, Page 6
January - June, 1986	Enclosure 1, Page 7, 12, 13

Supplements are provided as replacement pages with change bars indicating new information. Corrections were made to the First and Second Six Months 1985 semiannual reports and the first six months 1986 report to include Unit 1 Circulating Water and the total Unit 1 and 2 Circulating Water, respectively. The Curie Total, Waste Volume, and Average Diluted Concentration corrections to the first six months, 1986, were due to 1) an erroneous continuous Steam Generator Blowdown release, and 2) a Quarterly Steam Generator Blowdown Fe-55 result omitted. The Average Release Rates for Gaseous Effluents in the 1986 report were recalculated for each quarter using the proper time interval.

Enclosure 3 to Serial: RNP/87-508
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II. DATA TABLES

The corrected data tables are as follows:

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1985

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	UNITS	3RD QUARTER	4TH QUARTER	% ERROR
<u>A. FISSION AND ACTIVATION PRODUCTS</u>				
1. Total Releases	Ci	3.99E-02	1.95E-02	1.00E+01
2. Average Diluted Concentration	uCi/ml	1.46E-10	7.27E-11	
3. % of Applicable Limit	%	1.46E-01	7.27E-02	
<u>B. TRITIUM</u>				
1. Total Releases	Ci	1.15E+02	9.02E+01	1.00E+01
2. Average Diluted Concentration	uCi/ml	4.21E-07	3.36E-07	
3. % of Applicable Limit	%	1.40E-02	1.12E-02	
<u>C. DISSOLVED AND ENTRAINED GASES</u>				
1. Total Releases	Ci	1.31E-02	2.39E-02	1.00E+01
2. Average Diluted Concentration	uCi/ml	4.79E-11	8.91E-11	
3. % of Applicable Limit	%	1.60E-03	2.97E-03	
<u>D. GROSS ALPHA RADIOACTIVITY</u>				
1. Total Release	Ci	<LLD	<LLD	1.00E+01
<u>E. VOLUME OF WASTE RELEASED</u>				
	Liters	2.17E+06	3.07E+06	1.00E+01
<u>F. VOLUME OF DILUTION WATER</u>				
	Liters	2.73E+11	2.68E+11	1.00E+01
<u>G. MAXIMUM CONCENTRATION OF GROSS RADIOACTIVITY RELEASED</u>				
	uCi/ml	1.01E-08	1.05E-08	

TABLE 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1986
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	<u>UNITS</u>	<u>1ST QUARTER</u>	<u>2ND QUARTER</u>
A. FISSION AND ACTIVATION GASES:			
1. Total Release	Ci	<u>3.03E+02</u>	<u>7.21E+01</u>
2. Estimated Total Error	%	<u>1.10E+02</u>	<u>1.10E+02</u>
3. Average Release Rate for Period	uCi/sec	<u>3.90E+01</u>	<u>9.17E+00</u>
4. Percent of 10CFR50, Appendix I			
<u>Quarterly Limit</u>			
Gamma Air	%	<u>5.86E+00</u>	<u>1.07E-01</u>
Beta Air	%	<u>8.34E+00</u>	<u>3.59E+00</u>
<u>Yearly Limit</u>			
Gamma Air		<u>2.93E+00</u>	<u>2.99E+00</u>
Beta Air	%	<u>4.17E+00</u>	<u>5.96E+00</u>
B. Iodines, Particulates, and Tritium:			
<u>Iodines</u>			
1. Total Iodine - 131	Ci	<u>4.19E-03</u>	<u>7.22E-05</u>
2. Estimated Total Error	%	<u>1.10E+02</u>	<u>1.10E+02</u>
3. Average Release Rate	uCi/sec	<u>5.39E-04</u>	<u>9.18E-06</u>
<u>Particulates</u>			
1. Particulates with Half-Lives			
>8 days	Ci	<u>1.76E-04</u>	<u>3.21E-06</u>
2. Estimated Total Error	%	<u>1.00E+02</u>	<u>1.00E+02</u>
3. Average Release Rate for Period	uCi/sec	<u>2.26E-05</u>	<u>4.08E-07</u>
4. Gross Alpha Radioactivity	Ci	<u><LLD</u>	<u><LLD</u>
<u>Tritium</u>			
1. Total Release	Ci	<u>2.15E+00</u>	<u>6.81E-01</u>
2. Estimated Total Error	%	<u>9.00E+01</u>	<u>9.00E+01</u>
3. Average Release Rate for Period	uCi/sec	<u>2.77E-01</u>	<u>8.66E-02</u>
Percent of 10CFR50, Appendix I			
<u>Quarterly Limit</u>			
<u>Organ Thyroid</u>	%	<u>5.16E+01</u>	<u>3.11E-01</u>
<u>Yearly Limit*</u>			
<u>Organ Thyroid</u>	%	<u>2.58E+01</u>	<u>2.60E+01</u>

*Cumulative total for the year-to-date.

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1985

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	UNITS	3RD QUARTER	4TH QUARTER	% ERROR
<u>A. FISSION AND ACTIVATION PRODUCTS</u>				
1. Total Releases	Ci	<u>1.68E-02</u>	<u>1.79E-02</u>	<u>1.00E+01</u>
2. Average Diluted Concentration	uCi/ml	<u>8.09E-11</u>	<u>6.58E-11</u>	
3. % of Applicable Limit	%	<u>8.09E-02</u>	<u>6.58E-02</u>	
<u>B. TRITIUM</u>				
1. Total Releases	Ci	<u>1.64E+01</u>	<u>8.78E+01</u>	<u>1.00E+01</u>
2. Average Diluted Concentration	uCi/ml	<u>7.90E-08</u>	<u>3.23E-07</u>	
3. % of Applicable Limit	%	<u>2.63E-03</u>	<u>1.08E-02</u>	
<u>C. DISSOLVED AND ENTRAINED GASES</u>				
1. Total Releases	Ci	<u>3.31E-03</u>	<u>1.09E-01</u>	<u>1.00E+01</u>
2. Average Diluted Concentration	uCi/ml	<u>1.59E-11</u>	<u>4.01E-10</u>	
3. % of Applicable Limit	%	<u>5.30E-04</u>	<u>1.34E-02</u>	
<u>D. GROSS ALPHA RADIOACTIVITY</u>				
1. Total Release	Ci	<u><LLD</u>	<u><LLD</u>	<u>1.00E+01</u>
<u>E. VOLUME OF WASTE RELEASED</u>				
	Liters	<u>9.83E+05</u>	<u>7.14E+06</u>	<u>1.00E+01</u>
<u>F. VOLUME OF DILUTION WATER</u>				
	Liters	<u>2.08E+11</u>	<u>2.72E+11</u>	<u>1.00E+01</u>
<u>G. MAXIMUM CONCENTRATION OF GROSS RADIOACTIVITY RELEASED</u>				
	uCi/ml	<u>8.71E-09</u>	<u>1.41E-08</u>	

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1986
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	UNITS	1ST QUARTER	2ND QUARTER
A. <u>FISSION AND ACTIVATION GASES:</u>			
1. Total Releases	Ci	<u>1.33E-01</u>	<u>1.03E-01</u>
2. Estimated Total Error	%	<u>1.00E+02</u>	<u>1.00E+02</u>
3. Average Diluted Concentration	uCi/sec	<u>9.05E-10</u>	<u>3.90E-10</u>
B. <u>TRITIUM</u>			
1. Total Releases	Ci	<u>4.04E+01</u>	<u>1.71E+01</u>
2. Estimated Total Error	%	<u>4.00E+01</u>	<u>4.00E+01</u>
3. Average Diluted Concentration	uCi/sec	<u>2.75E-07</u>	<u>6.48E-08</u>
C. <u>DISSOLVED AND ENTRAINED GASES</u>			
1. Total Releases	Ci	<u>9.75E-03</u>	<u><LLD</u>
2. Estimated Total Error	%	<u>1.00E+02</u>	<u>1.00E+02</u>
3. Average Diluted Concentration	uCi/sec	<u>6.63E-11</u>	<u><LLD</u>
D. <u>GROSS ALPHA RADIOACTIVITY</u>			
1. Total Releases	Ci	<u><LLD</u>	<u><LLD</u>
2. Estimated Total Error	%	<u>1.00E+02</u>	<u>1.00E+02</u>
E. <u>VOLUME OF WASTE RELEASED</u>	Liters	<u>4.13E+06</u>	<u>5.30E+07</u>
F. <u>VOLUME OF DILUTION WATER</u>	Liters	<u>1.47E+11</u>	<u>2.64E+11</u>
G. <u>PERCENT OF 10CFR50, APPENDIX I</u>			
<u>Quarterly Limit</u>			
Organ Liver %		<u>5.59E+00</u>	<u>7.37E-01</u>
Total Body %		<u>1.33E+01</u>	<u>1.79E+00</u>
<u>Yearly Limit*</u>			
Organ Liver %		<u>2.80E+00</u>	<u>3.17E+00</u>
Total Body %		<u>6.66E+00</u>	<u>7.55E+00</u>

*Cumulative total for the year-to-date.

TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1986
LIQUID EFFLUENTS

NUCLIDES RELEASED	UNITS	<u>CONTINUOUS MODE</u>		<u>BATCH MODE</u>	
		<u>1ST QUARTER</u>	<u>2ND QUARTER</u>	<u>1ST QUARTER</u>	<u>2ND QUARTER</u>
H-3	Ci	<LLD	<LLD	4.04E+01	1.71E+01
Na-24	Ci	<LLD	<LLD	1.15E-04	<LLD
Cr-51	Ci	<LLD	<LLD	3.97E-03	5.02E-04
Mn-54	Ci	<LLD	<LLD	6.54E-04	2.33E-04
Fe-55	Ci	<LLD	8.21E-02	3.34E-03	<LLD
Fe-59	Ci	<LLD	<LLD	1.96E-05	1.20E-05
Co-57	Ci			1.32E-04	1.59E-05
Co-58	Ci	<LLD	<LLD	5.99E-02	9.82E-03
Co-60	Ci	<LLD	<LLD	3.63E-02	4.03E-03
Zn-65	Ci	<LLD	<LLD	2.70E-05	1.74E-05
Sr-89	Ci	<LLD	<LLD	2.60E-05	3.74E-06
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Sr-92	Ci			3.00E-04	1.57E-04
Zr-95	Ci	<LLD	<LLD	1.41E-04	4.32E-05
Nb-95	Ci	<LLD	<LLD	6.23E-04	1.89E-04
Nb-97	Ci	<LLD	<LLD	3.36E-04	<LLD
Tc-99m	Ci	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci			7.09E-04	1.48E-04
Sb-124	Ci			1.26E-02	2.23E-04
I-131	Ci	6.71E-06	<LLD	5.90E-04	2.30E-05
Cs-134	Ci	<LLD	<LLD	3.79E-03	2.00E-03
Cs-137	Ci	<LLD	<LLD	9.62E-03	3.38E-03
Ba/La-140	Ci	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD
Total	Ci	6.71E-06	8.21E-02	4.05E+01	1.71E+01
Xe-133	Ci	1.40E-05	<LLD	9.68E-03	<LLD
Xe-133m	Ci	<LLD	<LLD	7.56E-06	<LLD
Xe135	Ci	<LLD	LLD	5.75E-05	<LLD
Total	Ci	1.40E-05	<LLD	9.75E-03	<LLD