

TABLE HP 10.3-2

BIG ROCK POINT SEMIANNUAL RADIOACTIVE
EFFLUENT RELEASE REPORT (Revised)

GASEOUS EFFLUENTS - SUMMATION OF RELEASES

JANUARY 1988 to JUNE 1988

A. FISSION AND ACTIVATION GASES	UNITS	1st QUARTER	2nd QUARTER	Est Total Error %
1. Total release	Ci	2.17E+03	2.07E+02	
2. Average release rate for period	uCi/sec	2.76E+02	2.63E+01	5.34
3. Percent of annual avg MPC	%	7.65E-02	7.30E-03	
B. IODINES				
1. Total Iodine	Ci	1.67E-02	1.17E-03	
2. Average release rate for period	uCi/sec	2.13E-03	1.48E-04	4.47*
3. Percent of annual avg MPC *	%	4.17E-05	4.98E-06	
C. PARTICULATES				
1. Particulates with half-life > 8 days	Ci	7.79E-04	8.90E-04	#
2. Average release rate for period	uCi/sec	9.91E-05	1.13E-04	#
3. Percent of annual avg MPC	%	1.31E-06	3.48E-06	11.0 #
4. Gross alpha radioactivity	Ci	3.32E-07	1.65E-06	
5. Gross alpha release rate for period	uCi/sec	4.22E-08	2.10E-07	
D. TRITIUM				
1. Total release	Ci	1.3E+00	1.2E+00	
2. Average release rate for period	uCi/sec	1.6E-01	1.5E-01	
3. Percent of annual avg MPC	%	7.4E-06	6.9E-06	
E.				
1. Beta air dose at site boundary due to Noble Gases (TS 13.1.4.2a)	mRads	9.97E-03	9.59E-04	
2. Percent limit	%	9.97E-02	9.59E-03	
3. Gamma air dose at site boundary due to Noble Gases (TS 13.1.4.2a)	mRads	1.73E-02	1.65E-03	
4. Percent limit	%	3.46E-01	3.30E-02	
F.				
1. Maximum organ dose to public based on critical receptors (TS 13.1.4.3a)	mRem	2.96E-03	6.67E-04	#
2. Percent of limit	%	3.95E-02	8.89E-03	#

* Note: Data is reported for I-131 and I-133 only

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GASEOUS EFFLUENTS

JANUARY 1988 to JUNE 1988

3. PARTICULATES*	Units	1st QUARTER	2nd QUARTER
Chromium-51	Ci	1.99E-04	8.00E-06
Manganese-54	Ci	2.67E-05	5.57E-05
Cobalt-58	Ci	None	None
Barium-140	Ci	2.45E-04	2.70E-05
Cobalt-60	Ci	5.82E-05	6.28E-05
Zinc-65	Ci	1.49E-05	5.50E-06
Niobium-95	Ci	8.76E-07	None
Cesium-134	Ci	2.73E-05	1.82E-05
Total Cesium-137	Ci	8.67E-05	8.03E-05
Iron-59	Ci	7.36E-06	None
Silver-110m	Ci	1.14E-05	6.10E-04
Lanthanum-140**	Ci	6.92E-04	8.10E-05
Strontium-91**	Ci	2.70E-03	6.10E-04
Bromine-82**	Ci	2.05E-03	2.50E-04
Sodium-24**	Ci	1.54E-04	None
Molybdenum-99**	Ci	3.74E-05	None
Neptunium-239**	Ci	1.19E-05	None
Strontium-89***	Ci	1.0E-04	8.9E-06
Strontium-90***	Ci	1.2E-06	7.7E-07
Net unidentified beta	Ci	None	1.26E-05
Total	Ci	7.79E-04	8.90E-04

MAXIMUM DOSE PERCENT* Particulates with half-lives >8 days.

** Particulates with half-lives <8 days; not reflected in overall isotopic totals.

*** Calculated from vendor analysis of monthly stack gas filters. Reported vendor analyzed Sr 89/90 results were input to CASPAR code as Sr90 to yield conservative dose estimates.

TABLE HP 10.3-3

BIG ROCK POINT SEMIANNUAL RADIOACTIVE
EFFLUENT RELEASE REPORT (Revised)

LIQUID EFFLUENTS - SUMMATION OF RELEASES

JANUARY 1988 to JUNE 1988

A. FISSION AND ACTIVATION PRODUCTS	UNITS	1st QUARTER	2nd QUARTER	Est Total Error %
1. Total release (not including tritium, gases, alpha)	Ci	4.13E-02	1.29E-01	
2. Average diluted concentration during period	uCi/ml	1.66E-09	1.82E-08	5.07
3. Percent of MPC	%	1.18E-01	1.79	
B. TRITIUM				
1. Total release	Ci	8.03E-02	1.99E-01	
2. Average diluted concentration during period	uCi/ml	3.24E-09	2.80E-08	5.59
3. Percent of MPC	%	1.08E-04	9.34E-04	
C. DISSOLVED AND ENTRAINED GASES				
1. Total Release	Ci	None	None	
2. Average diluted concentration during period	uCi/ml	None	None	None
3. Percent of MPC	%	None	None	
D. GROSS ALPHA RADIOACTIVITY (Total Release)	Ci	8.29E-07	4.00E-06	
1. Average diluted concentration during period	uCi/ml	3.34E-14	5.63E-13	
E. VOLUME OF WASTE RELEASED (Prior to Dilution)	Liters	1.15E+05	4.21E+05	
F. VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	2.48E+10	7.10E+09	
G. MAXIMUM DOSE COMMITMENT - WHOLEBODY	mRem	4.40E-02	4.74E-02	
Percent of TS 13.1.4.1a limit	%	2.93	3.16	
H. MAXIMUM DOSE COMMITMENT - ORGAN	mRem	7.14E-02	1.00E-01	
Percent of TS 13.1.4.1a limit	%	1.43	2.00	

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LIQUID EFFLUENTS

JANUARY 1988 to JUNE 1988

1. NUCLIDES RELEASED	Units	1st QUARTER	2nd QUARTER
Cesium-137	Ci	1.77E-02	9.50E-03
Cobalt-58	Ci	4.27E-05	8.80E-04
Manganese-54	Ci	5.27E-03	3.15E-02
Cobalt-60	Ci	7.33E-03	3.86E-02
Cesium-134	Ci	8.51E-04	2.22E-03
Iron-59	Ci	6.87E-04	4.88E-03
Strontium-92	Ci	None	7.32E-06
Zinc-65	Ci	1.37E-04	2.00E-03
Antimony-124	Ci	None	4.97E-04
Molybdenum-99	Ci	8.15E-06	None
Chromium-51	Ci	None	7.29E-04
Silver-110m	Ci	None	8.00E-04
Iodine-135	Ci	2.75E-04	None
Iodine-133	Ci	5.31E-04	None
Iodine-131	Ci	2.16E-04	None
Strontium-89**	Ci	2.7E-04	3.6E-04
Strontium-90**	Ci	2.7E-04	3.4E-03
Net Unidentified Beta	Ci	7.68E-03	3.38E-02
Fission & Activation Product Total (Above)	Ci	4.13E-02	1.29E-01
Xenon-133	Ci	None	None
Tritium	Ci	8.03E-02	1.99E-01
Grand Total	Ci	1.22E-01	3.28E-01

** Calculated from vendor analysis of monthly radwaste composite samples. Reported net beta and vendor analyzed Sr 89/90 results were input to LADTAP code as Sr-90 to yield conservative dose estimates.