

Table 2.1  
 Semiannual Radioactive Effluent Release Report 1993  
 Gaseous Effluents - Summation of all Releases

Fission and Activation Gases	1st Quarter	2nd Quarter
Total Activity Released (Ci)	1.619E-001	2.046E-001
Average Release Rate ( $\mu$ Ci/sec)	2.060E-002	2.602E-002
Iodines		
Total Activity Released (Ci)	0.000E+000	0.000E+000
Average Release Rate ( $\mu$ Ci/sec)	0.000E+000	0.000E+000
Particulates		
Total Activity Released (Ci)	1.877E-005	9.233E-007
Average Release Rate ( $\mu$ Ci/sec)	2.387E-006	1.174E-007
Gross Alpha Released (Ci)	5.519E-004	1.601E-003
Tritium		
Total Activity Released (Ci)	2.595E+000	5.478E+000
Average Release Rate ( $\mu$ Ci/sec)	3.301E-001	6.967E-001

Table 2.2  
Semiannual Radioactive Effluent Release Report 1993  
Gaseous Effluents

Nuclides Released (Ci)

	Continuous Mode		Batch Mode	
	1st Quarter	2nd Quarter	1st Quarter	2nd Quarter
<b>Fission Gases</b>				
Ar-41	0.000E+000	9.412E-002	3.311E-002	3.356E-002
Kr-85m	0.000E+000	3.452E-004	7.135E-005	1.937E-005
Kr-85	0.000E+000	5.632E-003	0.000E+000	0.000E+000
Kr-87	0.000E+000	1.372E-003	0.000E+000	0.000E+000
Kr-88	0.000E+000	7.084E-004	0.000E+000	0.000E+000
Xe-133	0.000E+000	1.583E-003	1.087E-001	4.551E-002
Xe-133m	0.000E+000	0.000E+000	1.558E-003	5.911E-004
Xe-135m	0.000E+000	6.379E-003	0.000E+000	0.000E+000
Xe-135	0.000E+000	4.380E-003	1.852E-002	5.736E-003
Xe-137	0.000E+000	3.928E-004	0.000E+000	0.000E+000
Xe-138	0.000E+000	4.244E-003	0.000E+000	0.000E+000
Total	0.000E+000	1.192E-001	1.619E-001	8.542E-002
<b>Iodines</b>				
I-131	0.000E+000	0.000E+000	0.000E+000	0.000E+000
I-132	0.000E+000	0.000E+000	0.000E+000	0.000E+000
I-133	0.000E+000	0.000E+000	0.000E+000	0.000E+000
Total	0.000E+000	0.000E+000	0.000E+000	0.000E+000
<b>Particulates</b>				
Co-58	4.162E-007	5.925E-007	0.000E+000	0.000E+000
Co-60	1.640E-005	1.755E-007	0.000E+000	0.000E+000
Sr-89	0.000E+000	1.421E-007	0.000E+000	0.000E+000
Sr-90	0.000E+000	1.323E-008	0.000E+000	0.000E+000
Cs-137	1.950E-006	0.000E+000	0.000E+000	0.000E+000
Total	1.877E-005	9.233E-007	0.000E+000	0.000E+000

Table 2.3A (Con't)  
 Semiannual Radioactive Effluent Release Report 1993  
 2nd Quarter Gaseous Release  
 Total of all Releases

Noble Gasses (Curies)

Isotope	April	May	June	Total
Ar-41	4.239E-002	5.078E-002	3.451E-002	1.277E-001
Kr-85m	1.003E-004	2.307E-004	3.361E-005	3.646E-004
Kr-85	0.000E+000	5.632E-003	0.000E+000	5.632E-003
Kr-87	3.712E-004	9.271E-004	7.401E-005	1.372E-003
Kr-88	2.363E-004	4.721E-004	0.000E+000	7.084E-004
Xe-133	3.811E-004	1.389E-003	4.532E-002	4.709E-002
Xe-133m	0.000E+000	0.000E+000	5.911E-004	5.911E-004
Xe-135m	1.756E-003	4.171E-003	4.520E-004	6.379E-003
Xe-135	1.228E-003	2.903E-003	5.986E-003	1.012E-002
Xe-137	1.471E-004	2.374E-004	8.299E-006	3.928E-004
Xe-138	1.102E-003	2.956E-003	1.848E-004	4.244E-003
Total	4.771E-002	6.970E-002	8.716E-002	2.046E-001

Particulates (Curies)

Isotope	April	May	June	Total
Co-58	3.472E-007	2.453E-007	0.000E+000	5.925E-007
Co-60	1.755E-007	0.000E+000	0.000E+000	1.755E-007
Sr-89	0.000E+000	0.000E+000	1.421E-007	1.421E-007
Sr-90	0.000E+000	0.000E+000	1.323E-008	1.323E-008
Total	5.227E-007	2.453E-007	1.553E-007	9.233E-007

Halogens (Curies)

Isotope	April	May	June	Total
Total	0.000E+000	0.000E+000	0.000E+000	0.000E+000

Table 2.3A (Con't)  
 Semiannual Radioactive Effluent Release Report 1993  
 2nd Quarter Gaseous Release  
 Total of all Releases

Summary	April	May	June	<u>Total</u>
Total Noble Gases (Ci)	4.771E-002	6.970E-002	8.716E-002	2.046E-001
Total Halogens (Ci)	0.000E+0000	0.000E+000	0.000E+000	0.000E+000
Total Particulate Gross Beta-Gamma Half-Lives>8 Days (Ci)	5.227E-007	2.453E-007	1.553E-007	9.233E-007
Total Tritium (Ci)	4.006E+000	1.466E+000	5.333E-003	5.478E+000
Total Particulate Gross Alpha (Ci)	1.917E-005	1.858E-004	1.396E-003	1.601E-003

**Table 2.3B (Con't)**  
**Semiannual Radioactive Effluent Release Report 1993**  
**2nd Quarter Gaseous Release**  
**Continuous Mode Only**

**Noble Gasses (Curies)**

Isotope	April	May	June	Total
Ar-41	4.239E-002	5.078E-002	9.511E-004	9.412E-002
Kr-85m	1.003E-004	2.307E-004	1.424E-005	3.452E-004
Kr-85	0.000E+000	5.632E-003	0.000E+000	5.632E-003
Kr-87	3.712E-004	9.271E-004	7.401E-005	1.372E-003
Kr-88	2.363E-004	4.721E-004	0.000E+000	7.084E-004
Xe-133	2.932E-004	1.200E-003	8.939E-005	1.583E-003
Xe-135m	1.756E-003	4.171E-003	4.520E-004	6.379E-003
Xe-135	1.228E-003	2.903E-003	2.494E-004	4.380E-003
Xe-137	1.471E-004	2.374E-004	8.299E-006	3.928E-004
Xe-138	1.102E-003	2.956E-003	1.848E-004	4.244E-003
Total	4.762E-002	6.951E-002	2.023E-003	1.192E-001

**Particulates (Curies)**

Isotope	April	May	June	Total
Co-58	3.472E-007	2.453E-007	0.000E+000	5.925E-007
Co-60	1.755E-007	0.000E+000	0.000E+000	1.755E-007
Sr-89	0.000E+000	0.000E+000	1.421E-007	1.421E-007
Sr-90	0.000E+000	0.000E+000	1.323E-008	1.323E-008
Total	5.227E-007	2.453E-007	1.553E-007	9.233E-007

**Halogens (Curies)**

Isotope	April	May	June	Total
Total	0.000E+000	0.000E+000	0.000E+000	0.000E+000

Table 2.3B (Con't)  
 Semiannual Radioactive Effluent Release Report 1993  
 2nd Quarter Gaseous Release  
 Continuous Mode Only

Summary	April	May	June	<u>Total</u>
Total Noble Gases (Ci)	4.762E-002	6.951E-002	2.023E-003	1.192E-001
Total Halogens (Ci)	0.000E+000	0.000E+000	0.000E+000	0.000E+000
Total Particulate Gross Beta-Gamma Half-Lives > 8 Days (Ci)	5.227E-007	2.453E-007	1.553E-007	9.233E-007
Total Tritium (Ci)	4.006E+000	1.465E+000	0.000E+000	5.472E+000
Total Particulate Gross Alpha (Ci)	2.402E-007	2.521E-007	9.428E-007	1.435E-006