

EFFLUENT AND WASTE DISPOSAL REPORT
SUPPLEMENTAL INFORMATION
GASEOUS EFFLUENTS - BATCH MODE
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Number of releases		53	63	59	61	236
Total release time	minutes	6.48E+03	6.79E+03	7.28E+03	7.00E+03	2.76E+04
Maximum release time	minutes	1.51E+03	6.87E+02	1.37E+03	1.41E+03	1.51E+03
Average release time	minutes	1.22E+02	1.08E+02	1.23E+02	1.15E+02	1.17E+02
Minimum release time	minutes	4.90E+01	1.00E+01	2.60E+01	3.40E+01	1.00E+01

Note: Waste Gas Decay Tank release are included with Unit 1 data

EFFLUENT AND WASTE DISPOSAL REPORT
SUPPLEMENTAL INFORMATION
GASEOUS EFFLUENTS - BATCH MODE
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Number of releases		46	37	30	35	148
Total release time	minutes	4.65E+03	7.62E+03	1.55E+03	1.91E+03	1.57E+04
Maximum release time	minutes	2.39E+02	2.07E+03	6.20E+01	6.30E+01	2.07E+03
Average release time	minutes	1.01E+02	2.06E+02	5.17E+01	5.47E+01	1.06E+02
Minimum release time	minutes	4.40E+01	3.70E+01	4.30E+01	3.90E+01	3.70E+01

EFFLUENT AND WASTE DISPOSAL REPORT
SUPPLEMENTAL INFORMATION
LIQUID EFFLUENTS - BATCH MODE
Unit 1 & Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Number of releases		16	21	18	16	71
Total release time	minutes	4.45E+03	2.41E+03	1.08E+03	3.85E+03	1.18E+04
Maximum release time	minutes	4.63E+02	2.96E+02	1.03E+02	5.95E+02	5.95E+02
Average release time	minutes	2.78E+02	1.15E+02	6.01E+01	2.41E+02	1.66E+02
Minimum release time	minutes	8.00E+01	5.20E+01	3.10E+01	5.30E+01	3.10E+01
Avg. Dilution Water Flow	gpm	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Note: Liquid Releases are divided evenly between unit.

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1A
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
1. Total Release	Ci	4.19E-04	7.29E-02	1.52E-01	1.16E-01	3.41E-01
2. Avg. Release Rate	uCi/sec	5.39E-05	9.27E-03	1.91E-02	1.46E-02	1.08E-02
Iodine-131						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Release Rate	uCi/sec	(1)	(1)	(1)	(1)	(1)
Particulates Half Life >= 8 days						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Release Rate	uCi/sec	(1)	(1)	(1)	(1)	(1)
Others						
1. Total Release	Ci	1.01E+00	1.18E+00	1.09E+00	1.12E+00	4.40E+00
2. Avg. Release Rate	uCi/sec	1.30E-01	1.51E-01	1.37E-01	1.41E-01	1.40E-01
Tritium						
1. Total Release	Ci	2.03E+00	4.56E+00	2.79E+00	5.34E+00	1.47E+01
2. Avg. Release Rate	uCi/sec	2.62E-01	5.80E-01	3.51E-01	6.72E-01	4.67E-01
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Release Rate	uCi/sec	(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1C
GASEOUS EFFLUENTS - MIXED MODE RELEASES - CONTINUOUS MODE
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
XE-133	Ci	(1)	3.45E-02	8.26E-02	3.61E-02	1.53E-01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	(1)	3.45E-02	8.26E-02	3.61E-02	1.53E-01
Iodines						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Particulates Half Life >= 8 days						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Others						
C-14	Ci	1.01E+00	1.18E+00	1.09E+00	1.12E+00	4.40E+00
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.01E+00	1.18E+00	1.09E+00	1.12E+00	4.40E+00
Tritium						
H-3	Ci	2.03E+00	4.52E+00	2.69E+00	5.22E+00	1.45E+01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	2.03E+00	4.52E+00	2.69E+00	5.22E+00	1.45E+01
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1C
GASEOUS EFFLUENTS - MIXED MODE RELEASES - BATCH MODE
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
AR-41	Ci	(1)	3.07E-02	6.74E-02	7.46E-02	1.73E-01
KR-85M	Ci	(1)	4.59E-05	(1)	(1)	4.59E-05
KR-88	Ci	(1)	2.48E-05	(1)	(1)	2.48E-05
XE-131M	Ci	(1)	(1)	5.03E-06	(1)	5.03E-06
XE-133	Ci	4.14E-04	6.20E-03	1.75E-03	4.96E-03	1.33E-02
XE-133M	Ci	4.62E-06	1.09E-04	2.82E-06	4.08E-04	5.24E-04
XE-135	Ci	(1)	1.29E-03	(1)	1.38E-07	1.29E-03
		-----	-----	-----	-----	-----
Totals for Period...	Ci	4.19E-04	3.84E-02	6.92E-02	8.00E-02	1.88E-01
Iodines						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Particulates Half Life >= 8 days						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Others						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Tritium						
H-3	Ci	6.50E-04	4.16E-02	9.59E-02	1.23E-01	2.61E-01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	6.50E-04	4.16E-02	9.59E-02	1.23E-01	2.61E-01
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1A
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
1. Total Release	Ci	6.83e-02	1.06E-01	7.14E-02	7.56E-02	3.21E-01
2. Avg. Release Rate	uCi/sec	8.78E-03	1.35E-02	8.98E-03	9.51E-03	1.02E-02
Iodine-131						
1. Total Release	Ci	(1)	1.06E-06	(1)	(1)	1.06E-06
2. Avg. Release Rate	uCi/sec	(1)	1.35E-07	(1)	(1)	3.37E-08
Particulates Half Life >= 8 days						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Release Rate	uCi/sec	(1)	(1)	(1)	(1)	(1)
Others						
1. Total Release	Ci	1.04E+00	8.44E-01	1.12E+00	1.12E+00	4.13E+00
2. Avg. Release Rate	uCi/sec	1.34E-01	1.07E-01	1.41E-01	1.41E-01	1.31E-01
Tritium						
1. Total Release	Ci	7.55E+00	6.49E+00	6.88E+00	1.61E+01	3.70E+01
2. Avg. Release Rate	uCi/sec	9.71E-01	8.25E-01	8.65E-01	2.02E+00	1.17E+00
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Release Rate	uCi/sec	(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1C
GASEOUS EFFLUENTS - MIXED MODE RELEASES - CONTINUOUS MODE
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
XE-133	Ci	(1)	3.45E-02	3.23E-02	3.61E-02	1.03E-01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	(1)	3.45E-02	3.23E-02	3.61E-02	1.03E-01
Iodines						
I-131	Ci	(1)	1.06E-06	(1)	(1)	1.06E-06
		-----	-----	-----	-----	-----
Totals for Period...	Ci	(1)	1.06E-06	(1)	(1)	1.06E-06
Particulates Half Life >= 8 days						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Others						
C-14	Ci	1.04E+00	8.44E-01	1.12E+00	1.12E+00	4.13E+00
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.04E+00	8.44E-01	1.12E+00	1.12E+00	4.13E+00
Tritium						
H-3	Ci	7.47E+00	6.44E+00	6.84E+00	1.60E+01	3.68E+01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	7.47E+00	6.44E+00	6.84E+00	1.60E+01	3.68E+01
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 1C
GASEOUS EFFLUENTS - MIXED MODE RELEASES - BATCH MODE
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Gases						
AR-41	Ci	5.27E-02	3.29E-02	3.27E-02	3.94E-02	1.57E-01
KR-85M	Ci	(1)	4.58E-05	(1)	(1)	4.58E-05
KR-88	Ci	(1)	2.47E-05	(1)	(1)	2.47E-05
XE-131M	Ci	(1)	(1)	5.07E-06	(1)	5.07E-06
XE-133M	Ci	4.62E-06	1.08E-04	2.83E-06	(1)	1.16E-04
XE-133	Ci	1.56E-02	3.67E-02	6.37E-03	6.44E-05	5.88E-02
XE-135	Ci	(1)	1.59E-03	(1)	1.37E-07	1.59E-03
		-----	-----	-----	-----	-----
Totals for Period...	Ci	6.83E-02	7.14E-02	3.91E-02	3.95E-02	2.18E-01
Iodines						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Particulates Half Life >= 8 days						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Others						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Tritium						
H-3	Ci	8.30E-02	4.79E-02	3.31E-02	6.55E-02	2.29E-01
		-----	-----	-----	-----	-----
Totals for Period...	Ci	8.30E-02	4.79E-02	3.31E-02	6.55E-02	2.29E-01
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
1. Total Release	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03
2. Avg. Diluted Conc.	uCi/ml	1.05E-13	1.37E-13	5.14E-14	3.17E-14	7.69E-14
Tritium						
1. Total Release	Ci	4.58E+02	1.97E+02	6.39E+01	3.42E+02	1.06E+03
2. Avg. Diluted Conc.	uCi/ml	1.99E-05	1.16E-05	6.73E-07	8.91E-06	1.01E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
2. Avg. Diluted Conc.	uCi/ml	5.51E-16	6.00E-16	(1)	2.16E-15	8.40E-16
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste	liters	3.66E+09	3.59E+09	3.98E+09	3.75E+09	1.50E+10
Volume of dil. water	liters	3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A - Release Tank
LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
1. Total Release	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03
2. Avg. Diluted Conc.	uCi/ml	5.37E-10	5.78E-10	2.92E-10	1.75E-10	3.91E-10
Tritium						
1. Total Release	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
2. Avg. Diluted Conc.	uCi/ml	1.05E-04	4.33E-05	1.54E-05	8.25E-05	6.08E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
2. Avg. Diluted Conc.	uCi/ml	2.82E-12	2.54E-12	(1)	1.19E-11	4.27E-12
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste	liters	7.15E+05	8.49E+05	7.00E+05	6.79E+05	2.94E+06
Volume of dil. water	liters	3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A - Circulating Water Blowdown
LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR

Fission and Activation Products						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Diluted Conc.	uCi/ml	(1)	(1)	(1)	(1)	(1)
Tritium						
1. Total Release	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
2. Avg. Diluted Conc.	uCi/ml	1.99E-05	1.16E-05	6.70E-07	8.89E-06	1.00E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Diluted Conc.	uCi/ml	(1)	(1)	(1)	(1)	(1)
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste	liters	3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2B
LIQUID EFFLUENTS - CONTINUOUS MODE
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Tritium						
H-3	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
		-----	-----	-----	-----	-----
Totals for Period...	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
Dissolved and Entrained Gases						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2B
LIQUID EFFLUENTS - BATCH MODE
Unit 1

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
CO-57	Ci	1.50E-06	(1)	1.86E-06	1.24E-06	4.60E-06
CO-58	Ci	4.52E-04	1.77E-03	9.95E-04	4.73E-04	3.69E-03
CO-60	Ci	4.75E-04	1.64E-04	1.52E-04	1.70E-04	9.61E-04
CR-51	Ci	(1)	9.65E-05	(1)	(1)	9.65E-05
FE-59	Ci	(1)	8.23E-06	(1)	(1)	8.23E-06
MN-54	Ci	2.21E-06	1.95E-06	(1)	1.98E-06	6.14E-06
NB-95	Ci	(1)	3.00E-06	(1)	(1)	3.00E-06
NI-63	Ci	9.79E-04	1.21E-05	(1)	(1)	9.92E-04
SB-125	Ci	5.49E-05	1.76E-05	1.47E-05	8.54E-06	9.58E-05
ZR-95	Ci	(1)	3.24E-06	(1)	(1)	3.24E-06
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03
Tritium						
H-3	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
		-----	-----	-----	-----	-----
Totals for Period...	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
Dissolved and Entrained Gases						
XE-133	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

- (1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
1. Total Release	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03
2. Avg. Diluted Conc.	uCi/ml	1.05E-13	1.37E-13	5.14E-14	3.17E-14	7.69E-14
Tritium						
1. Total Release	Ci	4.58E+02	1.97E+02	6.39E+01	3.42E+02	1.06E+03
2. Avg. Diluted Conc.	uCi/ml	1.99E-05	1.16E-05	6.73E-07	8.91E-06	1.01E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
2. Avg. Diluted Conc.	uCi/ml	5.51E-16	6.00E-16	(1)	2.16E-15	8.40E-16
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste						
liters		3.66E+09	3.59E+09	3.98E+09	3.75E+09	1.50E+10
Volume of dil. water						
liters		3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10

- (2) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A - Release Tank
LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
1. Total Release	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03
2. Avg. Diluted Conc.	uCi/ml	5.37E-10	5.78E-10	2.92E-10	1.75E-10	3.91E-10
Tritium						
1. Total Release	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
2. Avg. Diluted Conc.	uCi/ml	1.05E-04	4.33E-05	1.54E-05	8.25E-05	6.08E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
2. Avg. Diluted Conc.	uCi/ml	2.82E-12	2.54E-12	(1)	1.19E-11	4.27E-12
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste	liters	7.15E+05	8.49E+05	7.00E+05	6.79E+05	2.94E+06
Volume of dil. water	liters	3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10

- (1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2A - Circulating Water Blowdown
LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Diluted Conc.	uCi/ml	(1)	(1)	(1)	(1)	(1)
Tritium						
1. Total Release	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
2. Avg. Diluted Conc.	uCi/ml	1.99E-05	1.16E-05	6.70E-07	8.89E-06	1.00E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
2. Avg. Diluted Conc.	uCi/ml	(1)	(1)	(1)	(1)	(1)
Gross Alpha Radioactivity						
1. Total Release	Ci	(1)	(1)	(1)	(1)	(1)
Volume of liquid waste	liters	3.66E+09	3.59E+09	3.98E+09	3.74E+09	1.50E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

- (1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2B
LIQUID EFFLUENTS - CONTINUOUS MODE
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Tritium						
H-3	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
		-----	-----	-----	-----	-----
Totals for Period...	Ci	7.27E+01	4.17E+01	2.67E+00	3.33E+01	1.50E+02
Dissolved and Entrained Gases						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

- (1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

EFFLUENT AND WASTE DISPOSAL REPORT
TABLE 2B
LIQUID EFFLUENTS - BATCH MODE
Unit 2

REPORT FOR 2019	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
-----	-----	-----	-----	-----	-----	-----
Fission and Activation Products						
CO-57	Ci	1.50E-06	(1)	1.86E-06	1.24E-06	4.60E-06
CO-58	Ci	4.52E-04	1.77E-03	9.95E-04	4.73E-04	3.69E-03
CO-60	Ci	4.75E-04	1.64E-04	1.52E-04	1.70E-04	9.61E-04
CR-51	Ci	(1)	9.65E-05	(1)	(1)	9.65E-05
FE-59	Ci	(1)	8.23E-06	(1)	(1)	8.23E-06
MN-54	Ci	2.21E-06	1.95E-06	(1)	1.98E-06	6.14E-06
NB-95	Ci	(1)	3.00E-06	(1)	(1)	3.00E-06
NI-63	Ci	9.79E-04	1.21E-05	(1)	(1)	9.92E-04
SB-125	Ci	5.49E-05	1.76E-05	1.47E-05	8.54E-06	9.58E-05
ZR-95	Ci	(1)	3.24E-06	(1)	(1)	3.24E-06
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.97E-03	2.08E-03	1.16E-03	6.55E-04	5.86E-03

Tritium

H-3	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
		-----	-----	-----	-----	-----
Totals for Period...	Ci	3.85E+02	1.56E+02	6.12E+01	3.09E+02	9.11E+02
Dissolved and Entrained Gases						
XE-133	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
		-----	-----	-----	-----	-----
Totals for Period...	Ci	1.03E-05	9.12E-06	(1)	4.46E-05	6.40E-05
Gross Alpha Radioactivity						
** No Nuclide Activities **		(1)	(1)	(1)	(1)	(1)

(1) Less than minimum detectable activity which meets the lower limit of detection (LLD) requirements of TRM Section 3.11

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===							QUARTER 1 ===	
Age grp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	1.55E-02	3.62E-02	3.51E-02	3.51E-02	3.51E-02	3.69E-02	0.00E+00	3.58E-02
TEEN	1.61E-02	2.75E-02	2.63E-02	2.63E-02	2.63E-02	2.76E-02	0.00E+00	2.71E-02
CHILD	2.12E-02	3.06E-02	2.94E-02	2.94E-02	2.94E-02	2.98E-02	0.00E+00	3.03E-02
INFANT	1.19E-04	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	0.00E+00	1.30E-02

=== SITE DOSE LIMIT ANALYSIS === QUARTER 1 ===

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
-----	-----	-----	-----	-----	-----

Qtr 1 - Admin. Any Organ	ADULT	GILLI	3.69E-02	3.75E+00	9.84E-01
Qtr 1 - Admin. Total Body	ADULT	TBODY	3.58E-02	1.13E+00	3.18E+00

Qtr 1 - T.Spc. Any Organ	ADULT	GILLI	3.69E-02	5.00E+00	7.38E-01
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Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

-----	-----
H-3	9.50E+01
MN-54	4.09E-02
CO-58	1.13E+00
CO-60	3.17E+00
NI-63	6.09E-01
SB-125	4.80E-03

Qtr 1 - T.Spc. Total Body	ADULT	TBODY	3.58E-02	1.50E+00	2.39E+00
---------------------------	-------	-------	----------	----------	----------

Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

-----	-----
H-3	9.80E+01
MN-54	2.62E-03
CO-58	1.29E-01
CO-60	3.84E-01
NI-63	1.46E+00
SB-125	1.07E-04

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

Liquid Receptor

=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) === QUARTER 2 ===

Age grp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
-----	-----	-----	-----	-----	-----	-----	-----	-----
ADULT	4.37E-04	3.17E-02	3.14E-02	3.14E-02	3.14E-02	4.12E-02	0.00E+00	3.20E-02
TEEN	4.53E-04	2.39E-02	2.36E-02	2.36E-02	2.36E-02	3.04E-02	0.00E+00	2.41E-02
CHILD	5.95E-04	2.65E-02	2.63E-02	2.63E-02	2.63E-02	2.87E-02	0.00E+00	2.69E-02
INFANT	3.45E-06	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	0.00E+00	1.17E-02

=== SITE DOSE LIMIT ANALYSIS === QUARTER 2 ===

Age	Dose	Limit	Max % of
-----	------	-------	----------

Quarter - Limit	Group	Organ	(mrem)	(mrem)	Limit
Qtr 2 - Admin. Any Organ	ADULT	GILLI	4.12E-02	3.75E+00	1.10E+00
Qtr 2 - Admin. Total Body	ADULT	TBODY	3.20E-02	1.13E+00	2.84E+00

Qtr 2 - T.Spc. Any Organ	ADULT	GILLI	4.12E-02	5.00E+00	8.24E-01
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Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	7.63E+01
CR-51	8.47E-02
MN-54	7.15E-02
FE-59	1.84E-01
CO-58	8.81E+00
CO-60	2.18E+00
NI-63	1.49E-02
ZR-95	2.39E-03
NB-95	1.24E+01
SB-125	3.06E-03

Qtr 2 - T.Spc. Total Body	ADULT	TBODY	3.20E-02	1.50E+00	2.13E+00
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Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.83E+01
CR-51	4.34E-04
MN-54	5.74E-03
FE-59	2.73E-02
CO-58	1.26E+00
CO-60	3.30E-01
NI-63	4.46E-02
ZR-95	6.59E-07

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Nuclide	Percentage
NB-95	1.41E-03
SB-125	8.54E-05

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LIQUID DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

								Liquid Receptor
Age grp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	1.77E-07	2.30E-02	2.28E-02	2.28E-02	2.28E-02	2.80E-02	0.00E+00	2.33E-02
TEEN	1.83E-07	1.73E-02	1.71E-02	1.71E-02	1.71E-02	2.07E-02	0.00E+00	1.77E-02

CHILD 3.00E-07 1.92E-02 1.90E-02 1.90E-02 1.90E-02 2.03E-02 0.00E+00 1.97E-02
 INFANT 1.42E-07 8.42E-03 8.42E-03 8.42E-03 8.42E-03 8.43E-03 0.00E+00 8.43E-03

=== SITE DOSE LIMIT ANALYSIS ===== QUARTER 3 =====

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 3 - Admin. Any Organ	ADULT	GILLI	2.80E-02	3.75E+00	7.48E-01
Qtr 3 - Admin. Total Body	ADULT	TBODY	2.33E-02	1.13E+00	2.08E+00

Qtr 3 - T.Spc. Any Organ ADULT GILLI 2.80E-02 5.00E+00 5.61E-01

Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	8.11E+01
-----	----------

CO-58	1.34E+01
-------	----------

CO-60	5.45E+00
-------	----------

SB-125	6.94E-03
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Qtr 3 - T.Spc. Total Body	ADULT	TBODY	2.33E-02	1.50E+00	1.56E+00
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Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.74E+01
-----	----------

CO-58	1.78E+00
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CO-60	7.69E-01
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SB-125	1.80E-04
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LIQUID DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

Liquid Receptor

=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===== QUARTER 4 =====

Age grp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	3.11E-08	3.49E-02	3.48E-02	3.48E-02	3.48E-02	3.59E-02	0.00E+00	3.49E-02

TEEN	3.21E-08	2.62E-02	2.61E-02	2.61E-02	2.61E-02	2.69E-02	0.00E+00	2.63E-02
CHILD	5.27E-08	2.92E-02	2.91E-02	2.91E-02	2.91E-02	2.94E-02	0.00E+00	2.93E-02
INFANT	2.49E-08	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.29E-02	0.00E+00	1.29E-02

=== SITE DOSE LIMIT ANALYSIS ===== QUARTER 4 =====

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 4 - Admin. Any Organ	ADULT	GILLI	3.59E-02	3.75E+00	9.57E-01
Qtr 4 - Admin. Total Body	ADULT	TBODY	3.49E-02	1.13E+00	3.11E+00

Qtr 4 - T.Spc. Any Organ ADULT GILLI 3.59E-02 5.00E+00 7.18E-01

Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.70E+01
-----	----------

MN-54	4.66E-02
-------	----------

CO-58	1.51E+00
-------	----------

CO-60	1.44E+00
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SB-125	9.52E-04
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Qtr 4 - T.Spc. Total Body	ADULT	TBODY	3.49E-02	1.50E+00	2.33E+00
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Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.97E+01
-----	----------

MN-54	2.98E-03
-------	----------

CO-58	1.72E-01
-------	----------

CO-60	1.74E-01
-------	----------

SB-125	2.11E-05
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LIQUID DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

Liquid Receptor

=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===== ANNUAL 2019 =====

Age grp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
---------	------	-------	---------	--------	------	--------	------	----

	ADULT	TEEN	CHILD	INFANT
2.50E-02	1.34E-01	1.32E-01	1.32E-01	1.32E-01
2.59E-02	1.01E-01	9.88E-02	9.88E-02	9.88E-02
3.41E-02	1.12E-01	1.10E-01	1.10E-01	1.10E-01
1.91E-04	4.89E-02	4.89E-02	4.89E-02	4.89E-02

=== SITE DOSE LIMIT ANALYSIS ===== ANNUAL 2019 =====

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2019 - Admin. Any Organ	ADULT	GILLI	1.45E-01	7.50E+00	1.93E+00
2019 - Admin. Total Body	ADULT	TBODY	1.34E-01	2.25E+00	5.94E+00

2019 - T.Spc. Any Organ ADULT GILLI 1.45E-01 1.00E+01 1.45E+00

Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.08E+01
CR-51	1.72E-02
MN-54	4.59E-02
FE-59	3.74E-02
CO-58	3.74E+00
CO-60	2.59E+00
NI-63	2.49E-01
ZR-95	4.87E-04
NB-95	2.51E+00
SB-125	3.39E-03

2019 - T.Spc. Total Body ADULT TBODY 1.34E-01 3.00E+00 4.45E+00

Critical Pathway: Fresh Water Fish-Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	9.86E+01
CR-51	7.44E-05
MN-54	3.10E-03
FE-59	4.67E-03
CO-58	4.49E-01
CO-60	3.30E-01
NI-63	6.28E-01
ZR-95	1.13E-07

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Nuclide	Percentage
NB-95	2.42E-04
SB-125	7.95E-05

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GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== I&P DOSE LIMIT ANALYSIS ===== QUARTER 1 =====

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 1 - Admin. Any Organ	CHILD	BONE	1.67E-01	5.63E+00	2.97E+00
Qtr 1 - Admin. Total Body	CHILD	TBODY	3.39E-02	5.25E+00	6.47E-01

Qtr 1 - T.Spc. Any Organ	CHILD	BONE	1.67E-01	7.50E+00	2.23E+00
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Receptor: 5 Composite Crit. Receptor - IP

Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
-----	----------

C-14	1.00E+02
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Qtr 1 - T.Spc. Total Body	CHILD	TBODY	3.39E-02	7.50E+00	4.53E-01
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Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
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H-3	1.59E+00
-----	----------

C-14	9.84E+01
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----- GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019
Unit Range - From: 1 To: 2

=== NG DOSE LIMIT ANALYSIS ===== QUARTER 1 =====

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
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Qtr 1 - Admin. Gamma	2.87E-05	3.75E+00	7.66E-04
Qtr 1 - Admin. Beta	2.70E-06	7.50E+00	3.60E-05

Qtr 1 - T.Spc. Gamma	2.87E-05	5.00E+00	5.75E-04
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	9.89E+01
XE-133M	6.10E-04
XE-133	1.14E+00

Qtr 1 - T.Spc. Beta	2.70E-06	1.00E+01	2.70E-05
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	9.11E+01
XE-133M	7.21E-03
XE-133	8.90E+00

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GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== I&P DOSE LIMIT ANALYSIS ===== QUARTER 2 =====

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 2 - Admin. Any Organ	CHILD	BONE	1.65E-01	5.63E+00	2.94E+00
Qtr 2 - Admin. Total Body	CHILD	TBODY	3.37E-02	5.25E+00	6.41E-01

Qtr 2 - T.Spc. Any Organ	CHILD	BONE	1.65E-01	7.50E+00	2.20E+00
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Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
-----	----------

C-14	1.00E+02
------	----------

I-131	1.14E-04
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Qtr 2 - T.Spc. Total Body	CHILD	TBODY	3.37E-02	7.50E+00	4.49E-01
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Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	1.85E+00
-----	----------

C-14	9.81E+01
------	----------

I-131	3.22E-04
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GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== NG DOSE LIMIT ANALYSIS ===== QUARTER 2 =====

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 2 - Admin. Gamma	3.70E-05	3.75E+00	9.86E-04
Qtr 2 - Admin. Beta	4.76E-06	7.50E+00	6.34E-05

Qtr 2 - T.Spc. Gamma	3.70E-05	5.00E+00	7.39E-04
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Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	9.28E+01
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KR-85M	1.77E-02
--------	----------

XE-135	8.67E-01
--------	----------

XE-133M	1.11E-02
---------	----------

KR-88	1.18E-01
-------	----------

XE-133	6.20E+00
--------	----------

Qtr 2 - T.Spc. Beta	4.76E-06	1.00E+01	4.76E-05
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Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	6.25E+01
-------	----------

KR-85M	5.41E-02
--------	----------

XE-135	2.12E+00
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XE-133M	9.62E-02
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KR-88	4.34E-02
-------	----------

XE-133	3.52E+01
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GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== I&P DOSE LIMIT ANALYSIS === QUARTER 3 ===

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 3 - Admin. Any Organ	CHILD	BONE	1.80E-01	5.63E+00	3.21E+00
Qtr 3 - Admin. Total Body	CHILD	TBODY	3.66E-02	5.25E+00	6.97E-01

Qtr 3 - T.Spc. Any Organ	CHILD	BONE	1.80E-01	7.50E+00	2.40E+00
--------------------------	-------	------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
-----	----------

C-14	1.00E+02
------	----------

Qtr 3 - T.Spc. Total Body	CHILD	TBODY	3.66E-02	7.50E+00	4.88E-01
---------------------------	-------	-------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	1.49E+00
-----	----------

C-14	9.85E+01
------	----------

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== NG DOSE LIMIT ANALYSIS === QUARTER 3 ===

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 3 - Admin. Gamma	5.65E-05	3.75E+00	1.51E-03
Qtr 3 - Admin. Beta	6.52E-06	7.50E+00	8.70E-05

Qtr 3 - T.Spc. Gamma	5.65E-05	5.00E+00	1.13E-03
----------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide Percentage

AR-41 9.55E+01

XE-133M 1.90E-04

XE-131M 1.62E-04

XE-133 4.46E+00

Qtr 3 - T.Spc. Beta	6.52E-06	1.00E+01	6.52E-05
---------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide Percentage

AR-41 7.18E+01

XE-133M 1.83E-03

XE-131M 2.46E-03

XE-133 2.82E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== I&P DOSE LIMIT ANALYSIS === QUARTER 4 ===

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 4 - Admin. Any Organ	CHILD	BONE	1.83E-01	5.63E+00	3.25E+00
Qtr 4 - Admin. Total Body	CHILD	TBODY	3.77E-02	5.25E+00	7.18E-01

Qtr 4 - T.Spc. Any Organ	CHILD	BONE	1.83E-01	7.50E+00	2.43E+00
--------------------------	-------	------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
-----	----------

C-14	1.00E+02
------	----------

Qtr 4 - T.Spc. Total Body	CHILD	TBODY	3.77E-02	7.50E+00	5.03E-01
---------------------------	-------	-------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP

Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	3.21E+00
-----	----------

C-14	9.68E+01
------	----------

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== NG DOSE LIMIT ANALYSIS === QUARTER 4 ===

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
-----------------	----------------	-----------------	-------------------

Qtr 4 - Admin. Gamma	6.31E-05	3.75E+00	1.68E-03
----------------------	----------	----------	----------

Qtr 4 - Admin. Beta	6.49E-06	7.50E+00	8.66E-05
---------------------	----------	----------	----------

Qtr 4 - T.Spc. Gamma	6.31E-05	5.00E+00	1.26E-03
----------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	9.75E+01
-------	----------

XE-135	4.85E-05
--------	----------

XE-133M	1.23E-02
---------	----------

XE-133	2.51E+00
--------	----------

Qtr 4 - T.Spc. Beta	6.49E-06	1.00E+01	6.49E-05
---------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	8.21E+01
-------	----------

XE-135	1.48E-04
--------	----------

XE-133M	1.33E-01
---------	----------

XE-133	1.78E+01
--------	----------

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== I&P DOSE LIMIT ANALYSIS ===== ANNUAL 2019 =====

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2019 - Admin. Any Organ	CHILD	BONE	6.95E-01	1.13E+01	6.18E+00
2019 - Admin. Total Body	CHILD	TBODY	1.42E-01	1.05E+01	1.35E+00

2019 - T.Spc. Any Organ	CHILD	BONE	6.95E-01	1.50E+01	4.63E+00
-------------------------	-------	------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP
Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	0.00E+00
C-14	1.00E+02
I-131	2.71E-05

2019 - T.Spc. Total Body	CHILD	TBODY	1.42E-01	1.50E+01	9.46E-01
--------------------------	-------	-------	----------	----------	----------

Receptor: 5 Composite Crit. Receptor - IP
Distance: 800 (meters) Compass Point: SSE

Critical Pathway: Vegetation

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	2.06E+00
C-14	9.79E+01
I-131	7.64E-05

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== NG DOSE LIMIT ANALYSIS ===== ANNUAL 2019 =====

Annual - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
2019 - Admin. Gamma	1.85E-04	7.50E+00	2.47E-03
2019 - Admin. Beta	2.05E-05	1.50E+01	1.37E-04

2019 - T.Spc. Gamma	1.85E-04	1.00E+01	1.85E-03
---------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	9.62E+01
KR-85M	3.53E-03
XE-135	1.73E-01
XE-133M	6.55E-03
KR-88	2.35E-02
XE-131M	4.95E-05
XE-133	3.63E+00

2019 - T.Spc. Beta	2.05E-05	2.00E+01	1.02E-04
--------------------	----------	----------	----------

Receptor: 4 Composite Crit. Receptor - NG

Distance: 800 (meters) Compass Point: SSE

Nuclide	Percentage
---------	------------

AR-41	7.54E+01
KR-85M	1.26E-02
XE-135	4.93E-01
XE-133M	6.59E-02
KR-88	1.01E-02
XE-131M	7.84E-04
XE-133	2.40E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

Units 1 & 2

Report for: 2019

Unit Range - From: 1 To: 2

=== MAXIMUM DOSE ANALYSIS === ANNUAL 2019 ===

Dose Type	Age Group	Organ	Dose (mrem)
Any Organ	CHILD	BONE	7.29E-01
Liquid Receptor: 0	Liquid Receptor		
Gaseous Receptor: 5	Composite Crit. Receptor - IP		
Distance: 800 (meters)	Compass Point: SSE		

Liquid Dose: 3.41E-02 % of Total: 4.68E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
CR-51	0.00E+00
MN-54	0.00E+00
FE-59	2.55E-02
CO-58	0.00E+00
CO-60	0.00E+00
NI-63	1.00E+02
ZR-95	2.83E-06
NB-95	3.76E-03
SB-125	2.22E-03

Gaseous Dose: 6.95E-01 % of Total: 9.53E+01

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
---------	------------

H-3	0.00E+00
C-14	1.00E+02
I-131	2.71E-05

=== MAXIMUM DOSE ANALYSIS === ANNUAL 2019 ===

Dose Type	Age Group	Organ	Dose (mrem)
-----	-----	-----	-----
Total Body	CHILD	TBODY	2.54E-01
Liquid Receptor: 0	Liquid Receptor		
Gaseous Receptor: 5	Composite Crit. Receptor - IP		
Distance: 800 (meters)	Compass Point: SSE		

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

Liquid Dose: 1.12E-01 % of Total: 4.43E+01
Critical Pathway: Fresh Water Fish - Sport (FFSP)
Major Contributors (0% or greater to total)
Nuclide Percentage

H-3 9.79E+01
CR-51 9.73E-05
MN-54 3.96E-03
FE-59 6.23E-03
CO-58 5.82E-01
CO-60 4.29E-01
NI-63 1.03E+00
ZR-95 1.68E-07
NB-95 3.18E-04
SB-125 1.41E-04

Gaseous Dose: 1.42E-01 % of Total: 5.59E+01
Critical Pathway: Vegetation (VEG)
Major Contributors (0% or greater to total)
Nuclide Percentage

H-3 2.06E+00
C-14 9.79E+01
I-131 7.64E-05

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 5.512E+05
 Total Release Volume (cf)..... 6.220E+10
 Average Release Flowrate (cfm)..... 1.129E+05

Average Period Flowrate (cfm)..... 1.184E+05

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	EC Ratio	EC
AR-41	1.73E+05	9.80E-11	9.80E-03	1.00E-08
KR-85M	4.58E+01	2.60E-14	2.60E-07	1.00E-07
KR-88	2.47E+01	1.40E-14	1.56E-06	9.00E-09
XE-131M	5.07E+00	2.88E-15	1.44E-09	2.00E-06
XE-133M	5.24E+02	2.97E-13	4.96E-07	6.00E-07
XE-133	1.67E+05	9.45E-11	1.89E-04	5.00E-07
XE-135	1.29E+03	7.32E-13	1.05E-05	7.00E-08
F&AG	3.41E+05	1.94E-10	1.00E-02	
C-14	4.40E+06	2.50E-09	8.33E-01	3.00E-09
Other	4.40E+06	2.50E-09	8.33E-01	
H-3	1.47E+07	8.35E-09	8.35E-02	1.00E-07

H-3	1.47E+07	8.35E-09	8.35E-02
-----	-----	-----	-----
Total	1.95E+07	1.10E-08	9.26E-01

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== MAXIMUM I&P DOSE FOR PERIOD =====							
Limit Type	Organ Type	Age Group	Organ	Dose (mrem)	Limit Period	Limit (mrem)	Percent of Limit
-----	-----	-----	-----	-----	-----	-----	-----
Admin	Any Organ	CHILD	BONE	3.59E-01	31-day	2.25E-01	1.59E+02
					Quarter	5.63E+00	6.37E+00
					Annual	1.13E+01	3.19E+00
-----	-----	-----	-----	-----	-----	-----	-----
T.Spec	Any Organ	CHILD	BONE	3.59E-01	31-day	3.00E-01	1.20E+02
					Quarter	7.50E+00	4.78E+00
					Annual	1.50E+01	2.39E+00

Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Critical Pathway.....: 2 Vegetation (VEG)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
-----	-----
H-3	0.00E+00
C-14	1.00E+02

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== PERIOD ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====								
Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB

AINHL	1.14E-03	3.65E-04	3.65E-04	3.65E-04	3.65E-04	3.65E-04	0.00E+00	3.65E-04
AVEG	5.63E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	0.00E+00	1.15E-02
ACMEAT	2.09E-02	4.22E-03	4.22E-03	4.22E-03	4.22E-03	4.22E-03	0.00E+00	4.22E-03
ACMILK	2.28E-02	4.65E-03	4.65E-03	4.65E-03	4.65E-03	4.65E-03	0.00E+00	4.65E-03
TINHL	1.63E-03	4.58E-04	4.58E-04	4.58E-04	4.58E-04	4.58E-04	0.00E+00	4.58E-04
TVEG	9.10E-02	1.86E-02	1.86E-02	1.86E-02	1.86E-02	1.86E-02	0.00E+00	1.86E-02
TCMEAT	1.76E-02	3.55E-03	3.55E-03	3.55E-03	3.55E-03	3.55E-03	0.00E+00	3.55E-03
TCMILK	4.20E-02	8.53E-03	8.53E-03	8.53E-03	8.53E-03	8.53E-03	0.00E+00	8.53E-03
CINHL	2.25E-03	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	0.00E+00	5.57E-04
CVEG	2.20E-01	4.45E-02	4.45E-02	4.45E-02	4.45E-02	4.45E-02	0.00E+00	4.45E-02
CCMEAT	3.32E-02	6.68E-03	6.68E-03	6.68E-03	6.68E-03	6.68E-03	0.00E+00	6.68E-03
CCMILK	1.04E-01	2.08E-02	2.08E-02	2.08E-02	2.08E-02	2.08E-02	0.00E+00	2.08E-02
IINHL	1.66E-03	4.10E-04	4.10E-04	4.10E-04	4.10E-04	4.10E-04	0.00E+00	4.10E-04
ICMILK	2.03E-01	4.35E-02	4.35E-02	4.35E-02	4.35E-02	4.35E-02	0.00E+00	4.35E-02

TOTALS -----								
ADULT	1.01E-01	2.07E-02	2.07E-02	2.07E-02	2.07E-02	2.07E-02	0.00E+00	2.07E-02
TEEN	1.52E-01	3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.11E-02	0.00E+00	3.11E-02
CHILD	3.59E-01	7.25E-02	7.25E-02	7.25E-02	7.25E-02	7.25E-02	0.00E+00	7.25E-02
INFANT	2.04E-01	4.39E-02	4.39E-02	4.39E-02	4.39E-02	4.39E-02	0.00E+00	4.39E-02

```

=== AGE GROUP / PATHWAY DESCRIPTIONS =====
Abbreviation  Age Group  Pathway
-----
AINHL         ADULT      Inhalation (INHL)
AVEG          ADULT      Vegetation (VEG)
ACMEAT        ADULT      Grs/Cow/Meat (CMEAT)
ACMILK        ADULT      Grs/Cow/Milk (CMILK)
TINHL         TEEN       Inhalation (INHL)
TVEG          TEEN       Vegetation (VEG)
TCMEAT        TEEN       Grs/Cow/Meat (CMEAT)
TCMILK        TEEN       Grs/Cow/Milk (CMILK)
CINHL         CHILD      Inhalation (INHL)
CVEG          CHILD      Vegetation (VEG)
CCMEAT        CHILD      Grs/Cow/Meat (CMEAT)
CCMILK        CHILD      Grs/Cow/Milk (CMILK)
IINHL         INFANT     Inhalation (INHL)
ICMILK        INFANT     Grs/Cow/Milk (CMILK)

```

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

```

=== MAXIMUM NG DOSE FOR PERIOD =====
Limit      Dose      Limit      Limit      Percent
Type       Dose Type   (mrad)     Period     (mrad)     of Limit
-----
Admin      Gamma      9.68E-05   31-day     1.50E-01   6.45E-02
                               Quarter    3.75E+00   2.58E-03
                               Annual     7.50E+00   1.29E-03
-----
Admin      Beta       1.06E-05   31-day     3.00E-01   3.54E-03
                               Quarter    7.50E+00   1.42E-04
                               Annual     1.50E+01   7.08E-05
-----
T.Spec     Gamma      9.68E-05   31-day     2.00E-01   4.84E-02
                               Quarter    5.00E+00   1.94E-03
                               Annual     1.00E+01   9.68E-04

```

Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Major Contributors.....: 0.0 % or greater to total
 Nuclide Percentage

AR-41	9.63E+01
KR-85M	3.38E-03
KR-88	2.25E-02
XE-131M	4.74E-05
XE-133M	1.03E-02
XE-133	3.52E+00
XE-135	1.49E-01

-----	-----	-----	-----	-----	-----
T.Spec	Beta	1.06E-05	31-day	4.00E-01	2.66E-03
			Quarter	1.00E+01	1.06E-04
			Annual	2.00E+01	5.31E-05

Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
-----	-----
AR-41	7.60E+01
KR-85M	1.21E-02

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
 (Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
-----	-----
KR-88	9.72E-03
XE-131M	7.55E-04
XE-133M	1.04E-01
XE-133	2.35E+01
XE-135	4.26E-01

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 5.477E+05
 Total Release Volume (cf)..... 7.124E+10
 Average Release Flowrate (cfm)..... 1.301E+05
 Average Period Flowrate (cfm)..... 1.355E+05

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	EC Ratio	EC
AR-41	1.58E+05	7.81E-11	7.81E-03	1.00E-08
KR-85M	4.58E+01	2.27E-14	2.27E-07	1.00E-07
KR-88	2.47E+01	1.23E-14	1.36E-06	9.00E-09
XE-131M	5.07E+00	2.51E-15	1.26E-09	2.00E-06
XE-133M	1.16E+02	5.74E-14	9.57E-08	6.00E-07
XE-133	1.62E+05	8.02E-11	1.60E-04	5.00E-07

XE-135	1.59E+03	7.86E-13	1.12E-05	7.00E-08
-----	-----	-----	-----	
F&AG	3.21E+05	1.59E-10	7.99E-03	
I-131	1.06E+00	5.27E-16	2.63E-06	2.00E-10
-----	-----	-----	-----	
Iodine	1.06E+00	5.27E-16	2.63E-06	
C-14	4.13E+06	2.05E-09	6.83E-01	3.00E-09
-----	-----	-----	-----	
Other	4.13E+06	2.05E-09	6.83E-01	
H-3	3.70E+07	1.83E-08	1.83E-01	1.00E-07
-----	-----	-----	-----	
H-3	3.70E+07	1.83E-08	1.83E-01	
-----	-----	-----	-----	
Total	4.15E+07	2.06E-08	8.74E-01	

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== MAXIMUM I&P DOSE FOR PERIOD =====							
Limit Type	Organ Type	Age Group	Organ	Dose (mrem)	Limit Period	Limit (mrem)	Percent of Limit
-----	-----	-----	-----	-----	-----	-----	-----
Admin	Any Organ	CHILD	BONE	3.37E-01	31-day	2.25E-01	1.50E+02
					Quarter	5.63E+00	5.98E+00
					Annual	1.13E+01	2.99E+00
-----	-----	-----	-----	-----	-----	-----	-----
T.Spec	Any Organ	CHILD	BONE	3.37E-01	31-day	3.00E-01	1.12E+02
					Quarter	7.50E+00	4.49E+00
					Annual	1.50E+01	2.24E+00

Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Critical Pathway.....: 2 Vegetation (VEG)

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	0.00E+00
C-14	1.00E+02
I-131	5.59E-05

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
Period Start Date.....: 01/01/2019 00:00
Period End Date.....: 01/01/2020 00:00
Period Duration (min): 5.256E+05
Coefficient Type.....: Historical
Unit.....: 2

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
AGPD	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	0.00E+00	2.18E-09
AINHL	1.07E-03	5.80E-04	5.80E-04	5.80E-04	5.80E-04	5.80E-04	0.00E+00	5.80E-04
AVEG	5.28E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	0.00E+00	1.12E-02
ACMEAT	1.96E-02	4.02E-03	4.02E-03	4.02E-03	4.02E-03	4.02E-03	0.00E+00	4.02E-03
ACMILK	2.14E-02	4.51E-03	4.52E-03	4.51E-03	4.50E-03	4.51E-03	0.00E+00	4.51E-03
TGPD	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	0.00E+00	2.18E-09
TINHL	1.53E-03	6.69E-04	6.69E-04	6.69E-04	6.69E-04	6.69E-04	0.00E+00	6.69E-04
TVEG	8.54E-02	1.79E-02	1.79E-02	1.79E-02	1.79E-02	1.79E-02	0.00E+00	1.79E-02
TCMEAT	1.65E-02	3.37E-03	3.37E-03	3.37E-03	3.37E-03	3.37E-03	0.00E+00	3.37E-03
TCMILK	3.95E-02	8.19E-03	8.22E-03	8.19E-03	8.19E-03	8.19E-03	0.00E+00	8.19E-03

CGPD	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	0.00E+00	2.18E-09
CINHL	2.11E-03	7.34E-04	7.34E-04	7.34E-04	7.34E-04	7.34E-04	7.34E-04	0.00E+00	7.34E-04
CVEG	2.06E-01	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02	0.00E+00	4.25E-02
CCMEAT	3.12E-02	6.31E-03	6.31E-03	6.31E-03	6.31E-03	6.31E-03	6.31E-03	0.00E+00	6.31E-03
CCMILK	9.72E-02	1.98E-02	1.99E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	0.00E+00	1.98E-02
IGPD	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	2.18E-09	0.00E+00	2.18E-09
IINHL	1.56E-03	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	0.00E+00	5.07E-04
ICMILK	1.90E-01	4.13E-02	4.14E-02	4.13E-02	4.13E-02	4.13E-02	4.13E-02	0.00E+00	4.13E-02

----- TOTALS -----									
ADULT	9.49E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	0.00E+00	2.03E-02
TEEN	1.43E-01	3.01E-02	3.02E-02	3.01E-02	3.01E-02	3.01E-02	3.01E-02	0.00E+00	3.01E-02
CHILD	3.37E-01	6.94E-02	6.94E-02	6.94E-02	6.94E-02	6.94E-02	6.94E-02	0.00E+00	6.94E-02
INFANT	1.92E-01	4.18E-02	4.19E-02	4.18E-02	4.18E-02	4.18E-02	4.18E-02	0.00E+00	4.18E-02

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
AGPD	ADULT	Ground Plane Deposition (GPD)
AINHL	ADULT	Inhalation (INHL)
AVEG	ADULT	Vegetation (VEG)
ACMEAT	ADULT	Grs/Cow/Meat (CMEAT)
ACMILK	ADULT	Grs/Cow/Milk (CMILK)
TGPD	TEEN	Ground Plane Deposition (GPD)
TINHL	TEEN	Inhalation (INHL)
TVEG	TEEN	Vegetation (VEG)
TCMEAT	TEEN	Grs/Cow/Meat (CMEAT)
TCMILK	TEEN	Grs/Cow/Milk (CMILK)
CGPD	CHILD	Ground Plane Deposition (GPD)
CINHL	CHILD	Inhalation (INHL)

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
CVEG	CHILD	Vegetation (VEG)
CCMEAT	CHILD	Grs/Cow/Meat (CMEAT)
CCMILK	CHILD	Grs/Cow/Milk (CMILK)
IGPD	INFANT	Ground Plane Deposition (GPD)
IINHL	INFANT	Inhalation (INHL)
ICMILK	INFANT	Grs/Cow/Milk (CMILK)

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== MAXIMUM NG DOSE FOR PERIOD =====					
Limit Type	Dose Type	Dose (mrad)	Limit Period	Limit (mrad)	Percent of Limit
-----	-----	-----	-----	-----	-----
Admin	Gamma	8.86E-05	31-day	1.50E-01	5.90E-02
			Quarter	3.75E+00	2.36E-03
			Annual	7.50E+00	1.18E-03
-----	-----	-----	-----	-----	-----
Admin	Beta	9.85E-06	31-day	3.00E-01	3.28E-03
			Quarter	7.50E+00	1.31E-04

-----	-----	-----	Annual	1.50E+01	6.57E-05
T.Spec	Gamma	8.86E-05	31-day	2.00E-01	4.43E-02
			Quarter	5.00E+00	1.77E-03
			Annual	1.00E+01	8.86E-04

Receptor.....: 4 Composite Crit. Receptor - NG

Distance (meters).....: 0.0

Compass Point.....: 0.0

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
---------	------------

AR-41	9.60E+01
-------	----------

KR-85M	3.69E-03
--------	----------

KR-88	2.46E-02
-------	----------

XE-131M	5.18E-05
---------	----------

XE-133M	2.48E-03
---------	----------

XE-133	3.74E+00
--------	----------

XE-135	1.99E-01
--------	----------

-----	-----	-----	-----	-----
T.Spec	Beta	9.85E-06	31-day	4.00E-01
			Quarter	1.00E+01
			Annual	2.00E+01
				2.46E-03
				9.85E-05
				4.93E-05

Receptor.....: 4 Composite Crit. Receptor - NG

Distance (meters).....: 0.0

Compass Point.....: 0.0

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
---------	------------

AR-41	7.48E+01
-------	----------

KR-85M	1.31E-02
--------	----------

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT (Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types

Period Start Date.....: 01/01/2019 00:00

Period End Date.....: 01/01/2020 00:00

Period Duration (min): 5.256E+05

Coefficient Type.....: Historical

Unit.....: 2

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
---------	------------

KR-88	1.05E-02
-------	----------

XE-131M	8.14E-04
---------	----------

XE-133M	2.48E-02
---------	----------

XE-133	2.46E+01
--------	----------

XE-135	5.65E-01
--------	----------

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2019 00:00
Period End Date.....: 01/01/2020 00:00
Period Duration (mins): 5.256E+05
Unit.....: 1

=== MULTIPLE RELEASE POINT MESSAGE =====
Undiluted and Diluted Flowrate(s) and Concentration(s) cannot be combined.

=== RELEASE DATA =====
Total Release Duration (minutes)..... 5.374E+05
Total Undiluted Volume Released (gallons)..... NA

Average Undiluted Flowrate (gpm)..... NA
 Total Dilution Volume (gallons)..... NA
 Average Dilution Flowrate (gpm)..... NA

=== NUCLIDE DATA =====

Nuclide	uCi
-----	-----
CO-57	4.60E+00
SB-125	9.58E+01
CR-51	9.65E+01
MN-54	6.14E+00
FE-59	8.23E+00
CO-58	3.69E+03
CO-60	9.61E+02
ZR-95	3.24E+00
NB-95	3.00E+00
-----	-----
Gamma	4.87E+03
XE-133	6.40E+01
-----	-----
D&EG	6.40E+01
H-3	1.06E+09
NI-63	9.92E+02
-----	-----
Beta	1.06E+09
-----	-----
Total	1.06E+09

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (mins): 5.256E+05
 Unit.....: 1
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
-----	-----	-----	-----	-----	-----	-----	-----	-----
APWtr	4.34E-05	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02	0.00E+00	1.84E-02

AFWFSp	1.25E-02	4.86E-02	4.75E-02	4.75E-02	4.75E-02	5.41E-02	0.00E+00	4.84E-02
TPWtr	4.13E-05	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	0.00E+00	1.30E-02
TFWFSp	1.29E-02	3.76E-02	3.65E-02	3.65E-02	3.65E-02	4.11E-02	0.00E+00	3.74E-02
CPWtr	1.25E-04	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02	0.00E+00	2.49E-02
CFWFSp	1.69E-02	3.13E-02	3.02E-02	3.02E-02	3.02E-02	3.18E-02	0.00E+00	3.13E-02
IPWtr	9.57E-05	2.44E-02	2.44E-02	2.44E-02	2.44E-02	2.44E-02	0.00E+00	2.44E-02

----- TOTALS -----								
ADULT	1.25E-02	6.70E-02	6.59E-02	6.59E-02	6.59E-02	7.25E-02	0.00E+00	6.68E-02
TEEN	1.30E-02	5.06E-02	4.94E-02	4.94E-02	4.94E-02	5.40E-02	0.00E+00	5.04E-02
CHILD	1.71E-02	5.62E-02	5.51E-02	5.51E-02	5.51E-02	5.67E-02	0.00E+00	5.62E-02
INFANT	9.57E-05	2.44E-02	2.44E-02	2.44E-02	2.44E-02	2.44E-02	0.00E+00	2.44E-02

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
-----	-----	-----
APWtr	ADULT	Potable Water (PWtr)
AFWFSp	ADULT	Fresh Water Fish - Sport (FFSP)
TPWtr	TEEN	Potable Water (PWtr)
TFWFSp	TEEN	Fresh Water Fish - Sport (FFSP)
CPWtr	CHILD	Potable Water (PWtr)
CFWFSp	CHILD	Fresh Water Fish - Sport (FFSP)
IPWtr	INFANT	Potable Water (PWtr)

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (mins): 5.256E+05
 Unit.....: 1
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====
Agegroup Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

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-----
ADULT
H-3      0.00E+00 6.59E-02 6.59E-02 6.59E-02 6.59E-02 6.59E-02 0.00E+00 6.59E-02
CR-51    0.00E+00 0.00E+00 2.97E-08 1.09E-08 6.59E-08 1.25E-05 0.00E+00 4.97E-08
MN-54    0.00E+00 1.09E-05 0.00E+00 3.23E-06 0.00E+00 3.33E-05 0.00E+00 2.07E-06
FE-59    3.46E-06 8.14E-06 0.00E+00 0.00E+00 2.27E-06 2.71E-05 0.00E+00 3.12E-06
CO-58    0.00E+00 1.34E-04 0.00E+00 0.00E+00 0.00E+00 2.71E-03 0.00E+00 3.00E-04
CO-60    0.00E+00 1.00E-04 0.00E+00 0.00E+00 0.00E+00 1.88E-03 0.00E+00 2.21E-04
NI-63    1.25E-02 8.66E-04 0.00E+00 0.00E+00 0.00E+00 1.81E-04 0.00E+00 4.19E-04
ZR-95    3.48E-10 1.12E-10 0.00E+00 1.75E-10 0.00E+00 3.53E-07 0.00E+00 7.55E-11
NB-95    5.40E-07 3.01E-07 0.00E+00 2.97E-07 0.00E+00 1.82E-03 0.00E+00 1.62E-07
SB-125   2.23E-07 2.50E-09 2.27E-10 0.00E+00 1.72E-07 2.46E-06 0.00E+00 5.31E-08

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TEEN
H-3      0.00E+00 4.94E-02 4.94E-02 4.94E-02 4.94E-02 4.94E-02 0.00E+00 4.94E-02
CR-51    0.00E+00 0.00E+00 2.85E-08 1.12E-08 7.31E-08 8.61E-06 0.00E+00 5.12E-08
MN-54    0.00E+00 1.07E-05 0.00E+00 3.18E-06 0.00E+00 2.19E-05 0.00E+00 2.12E-06
FE-59    3.57E-06 8.33E-06 0.00E+00 0.00E+00 2.63E-06 1.97E-05 0.00E+00 3.22E-06
CO-58    0.00E+00 1.33E-04 0.00E+00 0.00E+00 0.00E+00 1.83E-03 0.00E+00 3.06E-04
CO-60    0.00E+00 1.00E-04 0.00E+00 0.00E+00 0.00E+00 1.30E-03 0.00E+00 2.25E-04
NI-63    1.30E-02 9.16E-04 0.00E+00 0.00E+00 0.00E+00 1.46E-04 0.00E+00 4.39E-04
ZR-95    3.56E-10 1.12E-10 0.00E+00 1.65E-10 0.00E+00 2.59E-07 0.00E+00 7.73E-11
NB-95    5.44E-07 3.02E-07 0.00E+00 2.93E-07 0.00E+00 1.29E-03 0.00E+00 1.66E-07
SB-125   2.31E-07 2.52E-09 2.21E-10 0.00E+00 2.03E-07 1.80E-06 0.00E+00 5.40E-08

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CHILD
H-3      0.00E+00 5.51E-02 5.51E-02 5.51E-02 5.51E-02 5.51E-02 0.00E+00 5.51E-02
CR-51    0.00E+00 0.00E+00 3.04E-08 8.30E-09 5.55E-08 2.90E-06 0.00E+00 5.47E-08
MN-54    0.00E+00 8.36E-06 0.00E+00 2.34E-06 0.00E+00 7.01E-06 0.00E+00 2.23E-06
FE-59    4.34E-06 7.03E-06 0.00E+00 0.00E+00 2.04E-06 7.32E-06 0.00E+00 3.50E-06
CO-58    0.00E+00 1.07E-04 0.00E+00 0.00E+00 0.00E+00 6.24E-04 0.00E+00 3.28E-04
CO-60    0.00E+00 8.19E-05 0.00E+00 0.00E+00 0.00E+00 4.54E-04 0.00E+00 2.42E-04
NI-63    1.71E-02 9.13E-04 0.00E+00 0.00E+00 0.00E+00 6.15E-05 0.00E+00 5.80E-04
ZR-95    4.83E-10 1.06E-10 0.00E+00 1.52E-10 0.00E+00 1.11E-07 0.00E+00 9.45E-11
NB-95    6.42E-07 2.50E-07 0.00E+00 2.35E-07 0.00E+00 4.62E-04 0.00E+00 1.79E-07
SB-125   3.79E-07 2.92E-09 3.51E-10 0.00E+00 2.11E-07 9.07E-07 0.00E+00 7.94E-08

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INFANT
H-3      0.00E+00 2.44E-02 2.44E-02 2.44E-02 2.44E-02 2.44E-02 0.00E+00 2.44E-02
CR-51    0.00E+00 0.00E+00 1.35E-10 2.95E-11 2.62E-10 6.02E-09 0.00E+00 2.07E-10
MN-54    0.00E+00 1.86E-08 0.00E+00 4.11E-09 0.00E+00 6.82E-09 0.00E+00 4.21E-09

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2019 00:00
Period End Date.....: 01/01/2020 00:00
Period Duration (mins): 5.256E+05

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====

Agegroup	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
FE-59	3.85E-08	6.73E-08	0.00E+00	0.00E+00	1.99E-08	3.21E-08	0.00E+00	2.65E-08
CO-58	0.00E+00	2.02E-06	0.00E+00	0.00E+00	0.00E+00	5.03E-06	0.00E+00	5.03E-06
CO-60	0.00E+00	1.58E-06	0.00E+00	0.00E+00	0.00E+00	3.75E-06	0.00E+00	3.72E-06
NI-63	9.55E-05	5.90E-06	0.00E+00	0.00E+00	0.00E+00	2.94E-07	0.00E+00	3.31E-06
ZR-95	1.02E-10	2.47E-11	0.00E+00	2.67E-11	0.00E+00	1.23E-08	0.00E+00	1.75E-11
NB-95	1.91E-11	7.87E-12	0.00E+00	5.64E-12	0.00E+00	6.64E-09	0.00E+00	4.55E-12
SB-125	1.79E-07	1.73E-09	2.24E-10	0.00E+00	1.04E-07	2.39E-07	0.00E+00	3.68E-08

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (mins): 5.256E+05
 Unit.....: 1

Receptor.....: 0 Liquid Receptor

=== MAXIMUM DOSE FOR PERIOD =====							
Limit Type	Organ Type	Age Group	Organ	Dose (mrem)	Limit Period	Limit (mrem)	Percent of Limit
Admin	Any Organ	ADULT	GILLI	7.25E-02	31-day Quarter Annual	1.50E-01 3.75E+00 7.50E+00	4.84E+01 1.93E+00 9.67E-01
Admin	Tot Body	ADULT	TBODY	6.68E-02	31-day Quarter Annual	4.50E-02 1.13E+00 2.25E+00	1.48E+02 5.94E+00 2.97E+00
T.Spec	Any Organ	ADULT	GILLI	7.25E-02	31-day Quarter Annual	2.00E-01 5.00E+00 1.00E+01	3.63E+01 1.45E+00 7.25E-01

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)

Major Contributors.....: 0.0 % or greater to total

Nuclide Percentage

SB-125	3.39E-03
H-3	9.08E+01
CR-51	1.72E-02
MN-54	4.59E-02
FE-59	3.74E-02
CO-58	3.74E+00
CO-60	2.59E+00
NI-63	2.49E-01
ZR-95	4.87E-04
NB-95	2.51E+00

T.Spec	Tot Body	ADULT	TBODY	6.68E-02	31-day Quarter Annual	6.00E-02 1.50E+00 3.00E+00	1.11E+02 4.45E+00 2.23E+00
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Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)

Major Contributors.....: 0.0 % or greater to total

Nuclide Percentage

SB-125	7.95E-05
H-3	9.86E+01
CR-51	7.44E-05

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases

Period Start Date.....: 01/01/2019 00:00

Period End Date.....: 01/01/2020 00:00

Period Duration (mins): 5.256E+05

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
---------	------------

-----	-----
-------	-------

MN-54	3.10E-03
-------	----------

FE-59	4.67E-03
-------	----------

CO-58	4.49E-01
-------	----------

CO-60	3.30E-01
-------	----------

NI-63	6.28E-01
-------	----------

ZR-95	1.13E-07
-------	----------

NB-95	2.42E-04
-------	----------

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2019 00:00
Period End Date.....: 01/01/2020 00:00
Period Duration (mins): 5.256E+05
Unit.....: 2

=== MULTIPLE RELEASE POINT MESSAGE =====
Undiluted and Diluted Flowrate(s) and Concentration(s) cannot be combined.

=== RELEASE DATA =====
Total Release Duration (minutes)..... 5.374E+05
Total Undiluted Volume Released (gallons)..... NA
Average Undiluted Flowrate (gpm)..... NA

Total Dilution Volume (gallons)..... NA
Average Dilution Flowrate (gpm)..... NA

=== NUCLIDE DATA =====
Nuclide uCi

CO-57 4.60E+00
SB-125 9.58E+01
CR-51 9.65E+01
MN-54 6.14E+00
FE-59 8.23E+00
CO-58 3.69E+03
CO-60 9.61E+02
ZR-95 3.24E+00
NB-95 3.00E+00

Gamma 4.87E+03

XE-133 6.40E+01

D&EG 6.40E+01

H-3 1.06E+09
NI-63 9.92E+02

Beta 1.06E+09

Total 1.06E+09

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2019 00:00
 Period End Date.....: 01/01/2020 00:00
 Period Duration (mins): 5.256E+05
 Unit.....: 2
 Receptor.....: 0 Liquid Receptor

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=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====
Age/Path Bone      Liver      Thyroid  Kidney   Lung      GI-Lli    Skin      TB
-----
APWtr      4.34E-05 1.84E-02 1.84E-02 1.84E-02 1.84E-02 1.84E-02 0.00E+00 1.84E-02
AFWFSp     1.25E-02 4.86E-02 4.75E-02 4.75E-02 4.75E-02 5.41E-02 0.00E+00 4.84E-02
TPWtr      4.13E-05 1.30E-02 1.30E-02 1.30E-02 1.30E-02 1.30E-02 0.00E+00 1.30E-02
TFWFSp     1.29E-02 3.76E-02 3.65E-02 3.65E-02 3.65E-02 4.11E-02 0.00E+00 3.74E-02
CPWtr      1.25E-04 2.49E-02 2.49E-02 2.49E-02 2.49E-02 2.49E-02 0.00E+00 2.49E-02
CFWFSp     1.69E-02 3.13E-02 3.02E-02 3.02E-02 3.02E-02 3.18E-02 0.00E+00 3.13E-02
IPWtr      9.57E-05 2.44E-02 2.44E-02 2.44E-02 2.44E-02 2.44E-02 0.00E+00 2.44E-02
  
```

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----- TOTALS -----
ADULT      1.25E-02 6.70E-02 6.59E-02 6.59E-02 6.59E-02 7.25E-02 0.00E+00 6.68E-02
TEEN       1.30E-02 5.06E-02 4.94E-02 4.94E-02 4.94E-02 5.40E-02 0.00E+00 5.04E-02
CHILD      1.71E-02 5.62E-02 5.51E-02 5.51E-02 5.51E-02 5.67E-02 0.00E+00 5.62E-02
INFANT     9.57E-05 2.44E-02 2.44E-02 2.44E-02 2.44E-02 2.44E-02 0.00E+00 2.44E-02
  
```

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=== AGE GROUP / PATHWAY DESCRIPTIONS =====
Abbreviation Age Group Pathway
-----
APWtr        ADULT    Potable Water (PWtr)
AFWFSp       ADULT    Fresh Water Fish - Sport (FFSP)
TPWtr        TEEN     Potable Water (PWtr)
TFWFSp       TEEN     Fresh Water Fish - Sport (FFSP)
CPWtr        CHILD    Potable Water (PWtr)
CFWFSp       CHILD    Fresh Water Fish - Sport (FFSP)
IPWtr        INFANT   Potable Water (PWtr)
  
```

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

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Unit.....: 2
Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====								
Agegroup	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB

ADULT								
H-3	0.00E+00	6.59E-02	6.59E-02	6.59E-02	6.59E-02	6.59E-02	0.00E+00	6.59E-02
CR-51	0.00E+00	0.00E+00	2.97E-08	1.09E-08	6.59E-08	1.25E-05	0.00E+00	4.97E-08
MN-54	0.00E+00	1.09E-05	0.00E+00	3.23E-06	0.00E+00	3.33E-05	0.00E+00	2.07E-06
FE-59	3.46E-06	8.14E-06	0.00E+00	0.00E+00	2.27E-06	2.71E-05	0.00E+00	3.12E-06
CO-58	0.00E+00	1.34E-04	0.00E+00	0.00E+00	0.00E+00	2.71E-03	0.00E+00	3.00E-04
CO-60	0.00E+00	1.00E-04	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	2.21E-04
NI-63	1.25E-02	8.66E-04	0.00E+00	0.00E+00	0.00E+00	1.81E-04	0.00E+00	4.19E-04
ZR-95	3.48E-10	1.12E-10	0.00E+00	1.75E-10	0.00E+00	3.53E-07	0.00E+00	7.55E-11
NB-95	5.40E-07	3.01E-07	0.00E+00	2.97E-07	0.00E+00	1.82E-03	0.00E+00	1.62E-07
SB-125	2.23E-07	2.50E-09	2.27E-10	0.00E+00	1.72E-07	2.46E-06	0.00E+00	5.31E-08
TEEN								
H-3	0.00E+00	4.94E-02	4.94E-02	4.94E-02	4.94E-02	4.94E-02	0.00E+00	4.94E-02
CR-51	0.00E+00	0.00E+00	2.85E-08	1.12E-08	7.31E-08	8.61E-06	0.00E+00	5.12E-08
MN-54	0.00E+00	1.07E-05	0.00E+00	3.18E-06	0.00E+00	2.19E-05	0.00E+00	2.12E-06
FE-59	3.57E-06	8.33E-06	0.00E+00	0.00E+00	2.63E-06	1.97E-05	0.00E+00	3.22E-06
CO-58	0.00E+00	1.33E-04	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	3.06E-04
CO-60	0.00E+00	1.00E-04	0.00E+00	0.00E+00	0.00E+00	1.30E-03	0.00E+00	2.25E-04
NI-63	1.30E-02	9.16E-04	0.00E+00	0.00E+00	0.00E+00	1.46E-04	0.00E+00	4.39E-04
ZR-95	3.56E-10	1.12E-10	0.00E+00	1.65E-10	0.00E+00	2.59E-07	0.00E+00	7.73E-11
NB-95	5.44E-07	3.02E-07	0.00E+00	2.93E-07	0.00E+00	1.29E-03	0.00E+00	1.66E-07
SB-125	2.31E-07	2.52E-09	2.21E-10	0.00E+00	2.03E-07	1.80E-06	0.00E+00	5.40E-08
CHILD								
H-3	0.00E+00	5.51E-02	5.51E-02	5.51E-02	5.51E-02	5.51E-02	0.00E+00	5.51E-02
CR-51	0.00E+00	0.00E+00	3.04E-08	8.30E-09	5.55E-08	2.90E-06	0.00E+00	5.47E-08
MN-54	0.00E+00	8.36E-06	0.00E+00	2.34E-06	0.00E+00	7.01E-06	0.00E+00	2.23E-06
FE-59	4.34E-06	7.03E-06	0.00E+00	0.00E+00	2.04E-06	7.32E-06	0.00E+00	3.50E-06
CO-58	0.00E+00	1.07E-04	0.00E+00	0.00E+00	0.00E+00	6.24E-04	0.00E+00	3.28E-04
CO-60	0.00E+00	8.19E-05	0.00E+00	0.00E+00	0.00E+00	4.54E-04	0.00E+00	2.42E-04
NI-63	1.71E-02	9.13E-04	0.00E+00	0.00E+00	0.00E+00	6.15E-05	0.00E+00	5.80E-04
ZR-95	4.83E-10	1.06E-10	0.00E+00	1.52E-10	0.00E+00	1.11E-07	0.00E+00	9.45E-11
NB-95	6.42E-07	2.50E-07	0.00E+00	2.35E-07	0.00E+00	4.62E-04	0.00E+00	1.79E-07
SB-125	3.79E-07	2.92E-09	3.51E-10	0.00E+00	2.11E-07	9.07E-07	0.00E+00	7.94E-08
INFANT								
H-3	0.00E+00	2.44E-02	2.44E-02	2.44E-02	2.44E-02	2.44E-02	0.00E+00	2.44E-02
CR-51	0.00E+00	0.00E+00	1.35E-10	2.95E-11	2.62E-10	6.02E-09	0.00E+00	2.07E-10
MN-54	0.00E+00	1.86E-08	0.00E+00	4.11E-09	0.00E+00	6.82E-09	0.00E+00	4.21E-09

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

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=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) ===								
Agegroup	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
FE-59	3.85E-08	6.73E-08	0.00E+00	0.00E+00	1.99E-08	3.21E-08	0.00E+00	2.65E-08
CO-58	0.00E+00	2.02E-06	0.00E+00	0.00E+00	0.00E+00	5.03E-06	0.00E+00	5.03E-06
CO-60	0.00E+00	1.58E-06	0.00E+00	0.00E+00	0.00E+00	3.75E-06	0.00E+00	3.72E-06
NI-63	9.55E-05	5.90E-06	0.00E+00	0.00E+00	0.00E+00	2.94E-07	0.00E+00	3.31E-06
ZR-95	1.02E-10	2.47E-11	0.00E+00	2.67E-11	0.00E+00	1.23E-08	0.00E+00	1.75E-11
NB-95	1.91E-11	7.87E-12	0.00E+00	5.64E-12	0.00E+00	6.64E-09	0.00E+00	4.55E-12
SB-125	1.79E-07	1.73E-09	2.24E-10	0.00E+00	1.04E-07	2.39E-07	0.00E+00	3.68E-08

LIQUID RELEASE AND DOSE SUMMARY REPORT
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 Receptor.....: 0 Liquid Receptor

=== MAXIMUM DOSE FOR PERIOD =====							
Limit Type	Organ Type	Age Group	Organ	Dose (mrem)	Limit Period	Limit (mrem)	Percent of Limit
Admin	Any Organ	ADULT	GILLI	7.25E-02	31-day Quarter Annual	1.50E-01 3.75E+00 7.50E+00	4.84E+01 1.93E+00 9.67E-01
Admin	Tot Body	ADULT	TBODY	6.68E-02	31-day Quarter Annual	4.50E-02 1.13E+00 2.25E+00	1.48E+02 5.94E+00 2.97E+00
T.Spec	Any Organ	ADULT	GILLI	7.25E-02	31-day Quarter Annual	2.00E-01 5.00E+00 1.00E+01	3.63E+01 1.45E+00 7.25E-01

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
SB-125	3.39E-03
H-3	9.08E+01
CR-51	1.72E-02
MN-54	4.59E-02
FE-59	3.74E-02
CO-58	3.74E+00
CO-60	2.59E+00
NI-63	2.49E-01
ZR-95	4.87E-04
NB-95	2.51E+00

T.Spec	Tot Body	ADULT	TBODY	6.68E-02	31-day Quarter Annual	6.00E-02 1.50E+00 3.00E+00	1.11E+02 4.45E+00 2.23E+00
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Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
SB-125	7.95E-05

H-3 9.86E+01
CR-51 7.44E-05

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2019 00:00
Period End Date.....: 01/01/2020 00:00
Period Duration (mins): 5.256E+05

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
-----	-----
MN-54	3.10E-03
FE-59	4.67E-03
CO-58	4.49E-01
CO-60	3.30E-01
NI-63	6.28E-01
ZR-95	1.13E-07
NB-95	2.42E-04

