

Exelon Generation Company, LLC www.exeloncorp.com
Byron Station
4450 North German Church Road
Byron, IL 61010-9794

April 30, 2007

10 CFR 50.36a

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United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Byron Station, Units 1 and 2
Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: 2006 Annual Radioactive Effluent Release Report

Enclosed is the Annual Radioactive Effluent Release Report for Byron Station. This report is being submitted in accordance with 10 CFR 50.36(a)(2), "Technical specifications on effluents from nuclear power reactors," and includes a summary of radiological liquid and gaseous effluents and solid waste released from the site from January 2006, through December 2006.

In addition, an investigation performed as part of an Exelon Generation Company, LLC fleetwide environmental assessment project relating to previously identified leaks from the Circulating Water System vacuum breaker vaults investigation, a copy of the report entitled "Hydrogeologic Investigation Report – Fleetwide Assessment – Byron Generating Station – Byron, IL – Report #045136(13)" performed by Conestoga-Rovers & Associates was provided to the NRC in September 2006.

If you have any questions regarding this information, please contact W. Grundmann, Regulatory Assurance Manager, at (815) 406-2800.

Respectfully,



David M. Hoots
Site Vice President
Byron Nuclear Generating Station

DMH/ES/TH/rah

Attachment

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006
Supplemental Information

1. Regulatory Limits

a. Fission and activation gases:

Tech Spec Whole Body = 500 mrem/year
Skin = 3000 mrem/year

10CFR50 Gamma = 5 mrad/quarter; 10 mrad/year
Beta = 10 mrad/quarter; 20 mrad/year

b. Iodine: (summed with particulate, see below)

c. Particulates with half-lives > 8 days:

Tech Spec Organ = 1500 mrem/year
10CFR50 Organ = 7.5 mrem/quarter; 15 mrem/year

d. Liquid Effluents:

10CFR50 Whole Body = 1.5 mrem/quarter; 3 mrem/year
Organ = 5 mrem/quarter; 10 mrem/year

e. Total Effective Dose Equivalent:

10CFR20 TEDE = 100 mrem/year

2. Maximum Permissible Concentration

- a. Fission and Activation Gases: 10CFR20 Appendix B Table 2
- b. Iodine: 10CFR20 Appendix B Table 2
- c. Particulates: 10CFR20 Appendix B Table 2
- d. Liquid Effluents: 10 X 10CFR20 Appendix B Table 2

3. Average Energy: This item is not applicable. Release rates are calculated using an isotopic mix rather than average energy.

4. Measurements and Approximations of Total Radioactivity

- a. Fission and Activation Gases: Prior to release, the isotopic content is determined. Released activity is calculated using volume of release, which is determined by the change in tank or containment pressure. Additional methods of calculation utilize historical data and assign an isotopic mix, which is representative of normal vent stack isotopics.
- b. Particulate, Tritium and Iodine sampling media for the plant vent stacks are collected and isotopically analyzed weekly for the plant vent stacks.

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006
Supplemental Information

- c. Liquid effluents: Batch releases are isotopically analyzed prior to release. Total release activity is calculated using volume of release. Total tritium activity released is calculated from the highest of a monthly circulating water blowdown composite activity or a sum of the input composite activities.
 - d. Analysis results that are less than the lower limit of detection (<LLD) are reported in units of Ci/ml unless otherwise noted. All LLD values are listed in Attachment A.
5. Batch Releases:
- a. Liquid:
 - 1. Number of batch releases = 71
 - 2. Total time period for batch releases = 12,700 minutes
 - 3. Maximum time period for a batch release = 362 minutes
 - 4. Average time period for a batch release = 179 minutes
 - 5. Minimum time period for a batch release = 7 minutes
 - 6. Average stream flow during periods of release of effluent into a flowing stream = 159.76 m³/sec, based on information from the U.S. Geological Survey Byron Gauging Station.
 - b. Gaseous:
 - 1. Number of batch releases = 318
 - 2. Total time period for batch releases = 77,400 minutes
 - 3. Maximum time period for a batch release = 16,400 minutes
 - 4. Average time period for batch releases = 243 minutes
 - 5. Minimum time period for a batch release = 5 minutes
6. Abnormal Releases:
- a. Liquid - None
 - b. Gaseous – None
7. Addendum

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1A
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	7.12E-01	7.84E-01	1.03E+01	2.12E-01	1.20E+01
2. Avg. Release Rate	uCi/sec	9.16E-02	9.97E-02	1.30E+00	2.67E-02	3.81E-01
Iodine-131						
1. Total Release	Ci	9.46E-06	9.51E-06	6.43E-05	4.91E-06	8.82E-05
2. Avg. Release Rate	uCi/sec	1.22E-06	1.21E-06	8.09E-06	6.18E-07	2.80E-06
Particulates Half Life >= 8 days						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Release Rate	uCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tritium						
1. Total Release	Ci	2.04E-01	4.20E-02	2.51E+00	5.45E+00	8.20E+00
2. Avg. Release Rate	uCi/sec	2.62E-02	5.34E-03	3.16E-01	6.86E-01	2.60E-01

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1C
 GASEOUS EFFLUENTS - GROUND RELEASES - CONTINUOUS MODE
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR

Fission and Activation Gases						
XE-133	Ci	5.41E-01	5.77E-01	6.37E-01	1.47E-01	1.90E+00

Totals for Period...	Ci	5.41E-01	5.77E-01	6.37E-01	1.47E-01	1.90E+00
Iodines						
I-131	Ci	9.46E-06	9.51E-06	6.43E-05	4.91E-06	8.82E-05
I-132	Ci	0.00E+00	0.00E+00	8.45E-04	0.00E+00	8.45E-04
I-133	Ci	2.76E-05	4.79E-05	8.62E-05	5.36E-06	1.67E-04

Totals for Period...	Ci	3.71E-05	5.74E-05	9.95E-04	1.03E-05	1.10E-03
Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Tritium						
H-3	Ci	2.04E-01	4.20E-02	0.00E+00	6.08E-01	8.54E-01

Totals for Period...	Ci	2.04E-01	4.20E-02	0.00E+00	6.08E-01	8.54E-01

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1C
 GASEOUS EFFLUENTS - GROUND RELEASES - BATCH MODE
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AR-41	Ci	2.54E-03	5.05E-03	3.50E-03	0.00E+00	1.11E-02
KR-85	Ci	1.57E-02	1.93E-02	2.40E-03	3.54E-03	4.09E-02
KR-85M	Ci	5.60E-07	7.57E-04	8.34E-05	0.00E+00	8.41E-04
KR-88	Ci	1.13E-06	0.00E+00	0.00E+00	0.00E+00	1.13E-06
XE-131M	Ci	4.15E-04	9.37E-04	1.02E-03	8.64E-04	3.23E-03
XE-133	Ci	1.54E-01	1.81E-01	9.46E+00	5.96E-02	9.86E+00
XE-133M	Ci	3.00E-05	5.63E-05	4.89E-03	0.00E+00	4.97E-03
XE-135	Ci	3.55E-05	4.83E-04	2.00E-01	6.59E-04	2.01E-01
Totals for Period...	Ci	1.73E-01	2.08E-01	9.67E+00	6.47E-02	1.01E+01
Iodines						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Tritium						
H-3	Ci	0.00E+00	0.00E+00	2.51E+00	4.84E+00	7.35E+00
Totals for Period...	Ci	0.00E+00	0.00E+00	2.51E+00	4.84E+00	7.35E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	4.37E-04	1.55E-03	5.01E-03	3.24E-03	1.02E-02
2. Avg. Diluted Conc.	uCi/ml	2.11E-10	5.34E-10	1.35E-09	1.08E-09	8.71E-10
Tritium						
1. Total Release	Ci	4.59E+01	2.35E+02	6.93E+02	1.60E+02	1.13E+03
2. Avg. Diluted Conc.	uCi/ml	2.21E-05	8.10E-05	1.87E-04	5.32E-05	9.66E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	5.24E-06	2.71E-04	2.13E-03	7.59E-04	3.16E-03
2. Avg. Diluted Conc.	uCi/ml	2.52E-12	9.34E-11	5.76E-10	2.52E-10	2.70E-10
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.08E+09	2.90E+09	3.70E+09	3.01E+09	1.17E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A - Rock River
 LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	4.38E-04	1.55E-03	5.01E-03	3.24E-03	1.02E-02
2. Avg. Diluted Conc.	uCi/ml	2.07E-06	3.05E-06	2.93E-06	6.38E-06	3.47E-06
Tritium						
1. Total Release	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
2. Avg. Diluted Conc.	uCi/ml	1.93E-01	4.23E-01	3.77E-01	2.78E-01	3.54E-01
Dissolved and Entrained Gases						
1. Total Release	Ci	5.24E-06	2.71E-04	2.13E-03	7.58E-04	3.16E-03
2. Avg. Diluted Conc.	uCi/ml	2.48E-08	5.33E-07	1.25E-06	1.49E-06	1.07E-06
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.11E+05	5.08E+05	1.71E+06	5.08E+05	2.94E+06
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A - Circulating Water Blowdown
 LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Diluted Conc.	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tritium						
1. Total Release	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01
2. Avg. Diluted Conc.	uCi/ml	2.50E-06	6.79E-06	1.31E-05	6.38E-06	7.91E-06
Dissolved and Entrained Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Diluted Conc.	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.08E+09	2.90E+09	3.70E+09	3.01E+09	1.17E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2B
 LIQUID EFFLUENTS - CONTINUOUS MODE
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR

Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Tritium						
H-3	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01

Totals for Period...	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01
Dissolved and Entrained Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2B
 LIQUID EFFLUENTS - BATCH MODE
 Unit One 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AG-110M	Ci	0.00E+00	0.00E+00	7.22E-06	0.00E+00	7.22E-06
CO-57	Ci	0.00E+00	1.08E-05	0.00E+00	0.00E+00	1.08E-05
CO-58	Ci	3.91E-04	6.00E-04	2.23E-03	2.29E-03	5.51E-03
CO-60	Ci	4.66E-05	8.94E-04	1.16E-03	8.16E-05	2.18E-03
CR-51	Ci	0.00E+00	0.00E+00	1.05E-03	9.14E-05	1.14E-03
CS-137	Ci	0.00E+00	1.04E-05	2.86E-06	0.00E+00	1.33E-05
FE-59	Ci	0.00E+00	0.00E+00	7.28E-05	0.00E+00	7.28E-05
I-132	Ci	0.00E+00	0.00E+00	1.01E-04	0.00E+00	1.01E-04
LA-140	Ci	0.00E+00	0.00E+00	6.65E-05	0.00E+00	6.65E-05
MN-54	Ci	0.00E+00	2.99E-05	3.90E-05	2.73E-06	7.16E-05
MO-99	Ci	0.00E+00	0.00E+00	4.63E-06	0.00E+00	4.63E-06
NB-95	Ci	0.00E+00	0.00E+00	4.31E-05	1.85E-05	6.16E-05
RU-103	Ci	0.00E+00	0.00E+00	2.47E-05	0.00E+00	2.47E-05
SB-124	Ci	0.00E+00	0.00E+00	5.01E-06	0.00E+00	5.01E-06
SB-125	Ci	0.00E+00	0.00E+00	1.09E-04	1.38E-05	1.23E-04
SR-85	Ci	0.00E+00	0.00E+00	0.00E+00	2.97E-06	2.97E-06
TE-123M	Ci	0.00E+00	0.00E+00	0.00E+00	9.49E-06	9.49E-06
TE-125M	Ci	0.00E+00	0.00E+00	0.00E+00	7.32E-04	7.32E-04
TE-132	Ci	0.00E+00	0.00E+00	7.11E-05	0.00E+00	7.11E-05
ZR-95	Ci	0.00E+00	0.00E+00	2.15E-05	5.43E-06	2.70E-05
Totals for Period...	Ci	4.38E-04	1.55E-03	5.01E-03	3.25E-03	1.02E-02
Tritium						
H-3	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
Totals for Period...	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
Dissolved and Entrained Gases						
KR-85	Ci	0.00E+00	0.00E+00	0.00E+00	6.79E-04	6.79E-04
XE-133	Ci	5.24E-06	2.71E-04	2.13E-03	7.93E-05	2.48E-03
Totals for Period...	Ci	5.24E-06	2.71E-04	2.13E-03	7.58E-04	3.16E-03
Gross Alpha Radioactivity						
** No Nuclide Activities **						

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1A
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	5.91E-01	6.34E-01	1.01E+00	1.73E-01	2.41E+00
2. Avg. Release Rate	uCi/sec	7.60E-02	8.06E-02	1.27E-01	2.18E-02	7.64E-02
Iodine-131						
1. Total Release	Ci	8.86E-06	2.50E-06	1.43E-04	8.10E-06	1.62E-04
2. Avg. Release Rate	uCi/sec	1.14E-06	3.18E-07	1.80E-05	1.02E-06	5.14E-06
Particulates Half Life >= 8 days						
1. Total Release	Ci	7.20E-06	0.00E+00	2.88E-06	1.73E-07	1.03E-05
2. Avg. Release Rate	uCi/sec	9.26E-07	0.00E+00	3.62E-07	2.18E-08	3.27E-07
Tritium						
1. Total Release	Ci	6.06E-01	2.24E-01	1.59E+01	7.80E+00	2.45E+01
2. Avg. Release Rate	uCi/sec	7.79E-02	2.85E-02	2.00E+00	9.81E-01	7.77E-01

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1C
 GASEOUS EFFLUENTS - GROUND RELEASES - CONTINUOUS MODE
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR

Fission and Activation Gases						
XE-133	Ci	5.41E-01	5.77E-01	6.46E-01	1.47E-01	1.91E+00

Totals for Period...	Ci	5.41E-01	5.77E-01	6.46E-01	1.47E-01	1.91E+00
Iodines						
I-131	Ci	8.86E-06	2.50E-06	1.43E-04	8.10E-06	1.62E-04
I-132	Ci	0.00E+00	0.00E+00	1.16E-03	0.00E+00	1.16E-03
I-133	Ci	3.04E-05	2.18E-06	1.21E-05	0.00E+00	4.47E-05

Totals for Period...	Ci	3.92E-05	4.68E-06	1.31E-03	8.10E-06	1.36E-03
Particulates Half Life >= 8 days						
CO-58	Ci	0.00E+00	0.00E+00	1.00E-06	1.73E-07	1.18E-06
CO-60	Ci	0.00E+00	0.00E+00	1.88E-06	0.00E+00	1.88E-06
CR-51	Ci	7.20E-06	0.00E+00	0.00E+00	0.00E+00	7.20E-06

Totals for Period...	Ci	7.20E-06	0.00E+00	2.88E-06	1.73E-07	1.03E-05
Tritium						
H-3	Ci	6.06E-01	2.24E-01	1.58E+01	7.77E+00	2.44E+01

Totals for Period...	Ci	6.06E-01	2.24E-01	1.58E+01	7.77E+00	2.44E+01

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 1C
 GASEOUS EFFLUENTS - GROUND RELEASES - BATCH MODE
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AR-41	Ci	0.00E+00	0.00E+00	2.96E-03	1.39E-03	4.35E-03
Kr-85m	Ci	5.60E-07	0.00E+00	8.34E-05	0.00E+00	8.39E-05
Kr-85	Ci	1.57E-02	1.93E-02	2.40E-03	3.54E-03	4.09E-02
Kr-88	Ci	1.13E-06	0.00E+00	0.00E+00	0.00E+00	1.13E-06
XE-131M	Ci	4.15E-04	9.37E-04	2.81E-02	8.64E-04	3.03E-02
XE-133M	Ci	3.05E-05	4.02E-03	4.89E-03	0.00E+00	8.93E-03
XE-133	Ci	3.35E-02	3.25E-02	3.03E-01	2.02E-02	3.90E-01
XE-135	Ci	2.97E-04	0.00E+00	2.56E-02	1.43E-05	2.59E-02
Totals for Period...	Ci	4.99E-02	5.68E-02	3.67E-01	2.60E-02	5.00E-01
Iodines						
** No Nuclide Activities **						
Particulates Half Life >= 8 days						
** No Nuclide Activities **						
Tritium						
H-3	Ci	0.00E+00	0.00E+00	5.36E-02	3.27E-02	8.64E-02
Totals for Period...	Ci	0.00E+00	0.00E+00	5.36E-02	3.27E-02	8.64E-02

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	4.37E-04	1.55E-03	5.01E-03	3.24E-03	1.02E-02
2. Avg. Diluted Conc.	uCi/ml	2.11E-10	5.34E-10	1.35E-09	1.08E-09	8.71E-10
Tritium						
1. Total Release	Ci	4.59E+01	2.35E+02	6.93E+02	1.60E+02	1.13E+03
2. Avg. Diluted Conc.	uCi/ml	2.21E-05	8.10E-05	1.87E-04	5.32E-05	9.66E-05
Dissolved and Entrained Gases						
1. Total Release	Ci	5.24E-06	2.71E-04	2.13E-03	7.59E-04	3.16E-03
2. Avg. Diluted Conc.	uCi/ml	2.52E-12	9.34E-11	5.76E-10	2.52E-10	2.70E-10
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.08E+09	2.90E+09	3.70E+09	3.01E+09	1.17E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A - Rock River
 LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	4.38E-04	1.55E-03	5.01E-03	3.24E-03	1.02E-02
2. Avg. Diluted Conc.	uCi/ml	2.07E-06	3.05E-06	2.93E-06	6.38E-06	3.47E-06
Tritium						
1. Total Release	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
2. Avg. Diluted Conc.	uCi/ml	1.93E-01	4.23E-01	3.77E-01	2.78E-01	3.54E-01
Dissolved and Entrained Gases						
1. Total Release	Ci	5.24E-06	2.71E-04	2.13E-03	7.58E-04	3.16E-03
2. Avg. Diluted Conc.	uCi/ml	2.48E-08	5.33E-07	1.25E-06	1.49E-06	1.07E-06
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.11E+05	5.08E+05	1.71E+06	5.08E+05	2.94E+06
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2A - Circulating Water Blowdown
 LIQUID EFFLUENTS - SUMMATION BY RELEASE POINT
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Diluted Conc.	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tritium						
1. Total Release	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01
2. Avg. Diluted Conc.	uCi/ml	2.50E-06	6.79E-06	1.31E-05	6.38E-06	7.91E-06
Dissolved and Entrained Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Diluted Conc.	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Volume of liquid waste	liters	2.08E+09	2.90E+09	3.70E+09	3.01E+09	1.17E+10
Volume of dil. water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2B
 LIQUID EFFLUENTS - CONTINUOUS MODE
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Tritium						
H-3	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01
Totals for Period...	Ci	5.20E+00	1.97E+01	4.85E+01	1.92E+01	9.26E+01
Dissolved and Entrained Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

EFFLUENT AND WASTE DISPOSAL REPORT
 TABLE 2B
 LIQUID EFFLUENTS - BATCH MODE
 Unit Two 2006

REPORT FOR 2006	Units	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
Fission and Activation Gases						
AG-110M	Ci	0.00E+00	0.00E+00	7.22E-06	0.00E+00	7.22E-06
CO-57	Ci	0.00E+00	1.08E-05	0.00E+00	0.00E+00	1.08E-05
CO-58	Ci	3.91E-04	6.00E-04	2.23E-03	2.29E-03	5.51E-03
CO-60	Ci	4.66E-05	8.94E-04	1.16E-03	8.16E-05	2.18E-03
CR-51	Ci	0.00E+00	0.00E+00	1.05E-03	9.14E-05	1.14E-03
CS-137	Ci	0.00E+00	1.04E-05	2.86E-06	0.00E+00	1.33E-05
FE-59	Ci	0.00E+00	0.00E+00	7.28E-05	0.00E+00	7.28E-05
I-132	Ci	0.00E+00	0.00E+00	1.01E-04	0.00E+00	1.01E-04
LA-140	Ci	0.00E+00	0.00E+00	6.65E-05	0.00E+00	6.65E-05
MN-54	Ci	0.00E+00	2.99E-05	3.90E-05	2.73E-06	7.16E-05
MO-99	Ci	0.00E+00	0.00E+00	4.63E-06	0.00E+00	4.63E-06
NB-95	Ci	0.00E+00	0.00E+00	4.31E-05	1.85E-05	6.16E-05
RU-103	Ci	0.00E+00	0.00E+00	2.47E-05	0.00E+00	2.47E-05
SB-124	Ci	0.00E+00	0.00E+00	5.01E-06	0.00E+00	5.01E-06
SB-125	Ci	0.00E+00	0.00E+00	1.09E-04	1.38E-05	1.23E-04
SR-85	Ci	0.00E+00	0.00E+00	0.00E+00	2.97E-06	2.97E-06
TE-123M	Ci	0.00E+00	0.00E+00	0.00E+00	9.49E-06	9.49E-06
TE-125M	Ci	0.00E+00	0.00E+00	0.00E+00	7.32E-04	7.32E-04
TE-132	Ci	0.00E+00	0.00E+00	7.11E-05	0.00E+00	7.11E-05
ZR-95	Ci	0.00E+00	0.00E+00	2.15E-05	5.43E-06	2.70E-05
Totals for Period...	Ci	4.38E-04	1.55E-03	5.01E-03	3.25E-03	1.02E-02
Tritium						
H-3	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
Totals for Period...	Ci	4.07E+01	2.15E+02	6.44E+02	1.41E+02	1.04E+03
Dissolved and Entrained Gases						
KR-85	Ci	0.00E+00	0.00E+00	0.00E+00	6.79E-04	6.79E-04
XE-133	Ci	5.24E-06	2.71E-04	2.13E-03	7.93E-05	2.48E-03
Totals for Period...	Ci	5.24E-06	2.71E-04	2.13E-03	7.58E-04	3.16E-03
Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006

SOLID RADIOACTIVE WASTE FOR BURIAL 1ST QUARTER 2006

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	CURIES* PER SHIPMENT
1/11/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum,PA.	6.80E+01	1.06E-01
1/24/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Clive, UT.	4.67E+00	7.92E+00
1/31/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Clive, UT	4.56E+00	5.33E+01
2/07/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Clive, UT	4.62E+00	1.81E+01
3/14/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum,PA.	2.53E+01	1.04E+00
Quarterly Totals		Number of Shipments:	5	1.07E+02	8.05E+01
* Calculated using measured ratios				CUBIC M	CURIES

BYRON NUCLEAR POWER STATION
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SOLID RADIOACTIVE WASTE FOR BURIAL 2ND QUARTER 2006

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	CURIES* PER SHIPMENT
4/12/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER	EXCLUSIVE-USE	Oak Ridge, TN.	1.45E+01	5.59E-02
5/10/2006	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE, LIMITED QUANTITY OF MATERIAL,7, UN2910, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Kingston, TN.	2.83E+01	5.36E-03
5/23/2006	RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, 7, UN2916, TYPE B, NONE	EXCLUSIVE-USE	Barnwell, SC.	2.61E+00	1.15E+02
6/08/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY,7, UN3321, CLASS B, TYPE A CONTAINER,NONE	EXCLUSIVE-USE	Barnwell, SC.	2.61E+00	8.77E+01
6/15/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS B,TYPE A CONTAINER, NONE	EXCLUSIVE-USE	Barnwell, SC.	2.55E+00	9.63E+01
6/23/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN2912, STRONG TIGHT CONTAINER, NONE, CLASS A	EXCLUSIVE-USE	Kingston, TN	1.53E+01	2.76E-02
Quarterly Totals		Number of Shipments:	6	6.59E+01	2.99E+02
* Calculated using measured ratios				CUBIC M	CURIES

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SOLID RADIOACTIVE WASTE FOR BURIAL 3RD QUARTER 2006

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	CURIES* PER SHIPMENT
7/12/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum, PA.	6.80E+01	1.35E-01
8/02/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Oak Ridge, TN	8.35E+00	1.02E-02
9/01/06	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE, LIMITED QUANTITY MATERIAL, 7, UN2910, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Kingston, TN	3.06E+01	2.59E-03
9/21/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum, PA.	6.80E+01	1.24E-01
Quarterly Totals		Number of Shipments:	4	1.75E+02	2.72E-01
* Calculated using measured ratios				CUBIC M	CURIES

BYRON NUCLEAR POWER STATION
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RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006

SOLID RADIOACTIVE WASTE FOR BURIAL 4TH QUARTER 2006

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	CURIES* PER SHIPMENT
10/04/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum, PA.	2.53E+01	1.17E+00
10/10/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum, PA.	6.46E+01	2.62E-01
10/25/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Wampum, PA.	6.12E+01	3.21E-01
11/06/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Clive, UT	4.64E+00	6.52E+00
11/14/2006	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, UN2910, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Kingston, TN	1.15E+01	2.99E-04
11/14/2006	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, 7, UN3321, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Clive, UT	4.39E+00	7.44E+00
11/15/2006	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, UN2910, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	Oak Ridge, TN	7.02E+01	4.45E-03
Quarterly Totals		Number of Shipments:	7	2.42E+02	1.57E+01
* Calculated using measured ratios				CUBIC M	CURIES

BYRON NUCLEAR POWER STATION
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RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006

A. Process Control Program for Radioactive Wastes, RW-AA-100 rev 3 was revised to Rev 4. The following changes were made to RW-AA-100 from rev 3 to rev 4. All changes are administrative in nature and do not effect the PCP.

In step 4.6.1, the phrase "Technical Specifications" was added for clarification.

In step 4.6.2, the wording was changed to read as follows: "Changes to the PCP shall be included in the Annual Radiological Effluent Release Report (ARERR) as required by the ODCM. Per the ODCM ALL changes to the PCP are required to be included in the ARERR."

Steps 4.6.3 and 4.6.4 were modified to clarify the requirement for reviewing and approving vendor procedures.

In the reference section 6, steps were added for procedures LS-AA-106, RM-AA-102-1006, and RP-AA-600 Series. These procedures were stated in steps 4.6.3 (LS-AA-106) and 4.6.4 (RM-AA-102-1006 and RP-AA-600 Series) and were not previously listed in Section 6, References.

B. Error Analysis

The following is an estimate of the errors associated with effluent monitoring and analysis. The estimate is calculated using the square root of the sum of the squares methodology.

1. Gaseous Effluents

Qme=3.33%
RM=N/A
ECe=5%
Stdcse/Smplcse=5%
qme=N/A

Total error = 7.8%

2. Liquid Effluents

Qme=3.33%
RM=N/A
ECe=N/A
Stdcse/Smplcse=5%
qme=2.22%

Total error = 6.4%

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B. Error Analysis (Cont.)

3. Waste Resin

Qme=10.0%
RM=N/A
ECe=5%
Stdcse/Smpcse=5%
qme=1.0%

Total error = 12.3%

4. DAW, Mechanical Filters, and Contaminated Metal

Qme=10.0%
RM=N/A
ECe=N/A
Stdcse/Smpcse=5%
qme=N/A

Instrument calibration error = 10%

Total error = 11.2%

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006

- A. Meteorological and environmental impact information is reported in the Station Annual Radiological Environmental Operating Report as required by Technical Specification 5.6.2.
- B. No limits were exceeded in liquid hold up tanks as stated in Technical Specification 5.5.12 or in waste gas decay tanks as stated in Technical Specification 5.5.12.
- C. There were no irradiated fuel shipments during this period.
- D. There were no elevated releases. All releases are considered vent or ground level releases.
- E. There was one REMP issue in 2006. The required LLD for Iodine-131 (1.0pCi/L) was not met on 4 milk samples collected in 2006. Teledyne-Brown Engineering (TBE) performs the analysis and performed an investigation documenting why the LLD was not achieved. In May 2006, TBE was informed by Fisher-Scientific that Whatman had discontinued production of the filter they were using for I-131 analysis. After TBE reviewed filter specifications, TBE identified an equivalent filter produced by Millipore. TBE started using this equivalent Millipore filter only to find out that this filter was also being discontinued. A vendor's recommended equivalent replacement filter for the Millipore filter performed poorly, apparently due to a difference in porosity of the filters, resulting in low yields. Sample aliquots were increased (up to 8 liters, when possible) and count times extended (up to 64 hours, in some cases) but LLD requirements were missed due to low chemical yield and decay of the iodine during the investigation. TBE has found a new filter which has been utilized and the problem is now resolved. (Ref. IR 526171)
- F. Attached are Offsite Dose Calculations for January through December of 2006.
- G. In 2005 the Annual Radiological Effluent Release Report contained an inaccurate description of a shipment. The shipment on 1/18/2005 was listed as RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS B, STRONG-TIGHT CONTAINER, NONE. The statement Strong-tight Container does not apply to a Class B shipment. See the 2006 Addendum for corrections.

Solid Radioactive Waste for Burial, Addendum
A. Estimated Solid Waste Composition

Resins, Filters, Evap Bottoms		
Nuclide	Percent Abundance	uCi/ml
H-3	1.594	4.67E-01
C-14	0.379	1.11E-01
Mn-54	2.348	6.88E-01
Fe-55	26.652	7.80E+00
Co-57	0.579	1.70E-01
Co-58	13.792	4.04E+00
Co-60	15.649	4.59E+00
Ni-59	1.358	3.98E-01
Ni-63	20.889	6.12E+00
Sr-90	0.017	5.10E-03
Sb-122	0.055	1.62E-02
Sb-125	1.346	3.94E-01
I-129	0.000	6.91E-05
Cs-134	6.552	1.92E+00
Cs-137	8.199	2.40E+00
Ce-144	0.263	7.71E-02
Pu-238	0.000	7.53E-05
Pu-239	0.000	3.09E-05
Pu-241	0.213	6.24E-02
Am-241	0.000	2.82E-05
Cm-242	0.000	4.98E-05
Cm-243	0.000	1.97E-05
Tc-99	0.113	3.32E-02

Dry Active Waste		
Nuclide	Percent Abundance	uCi/ml
H-3	68.025	1.15E-03
C-14	0.021	3.53E-07
Cr-51	2.264	3.84E-05
Mn-54	0.255	4.33E-06
Fe-55	1.478	2.51E-05
Fe-59	0.165	2.80E-06
Co-57	0.020	3.32E-07
Co-58	5.298	8.96E-05
Co-60	0.865	1.47E-05
Ni-59	0.075	1.27E-06
Ni-63	1.149	1.95E-05
Sr-90	0.065	1.10E-06
Zr-95	3.291	5.58E-05
Nb-95	13.455	2.28E-04
Tc-99	0.335	5.69E-06
Ru-103	0.362	6.13E-06
Ru-106	0.394	6.69E-06
Sb-125	0.050	8.47E-07
I-129	0.000	2.20E-10
Cs-137	0.041	6.93E-07
Ce-141	0.469	7.98E-06
Ce-144	1.898	3.22E-05
Pu-238	0.002	3.67E-08
Pu-239	0.001	1.51E-08
Pu-241	0.017	2.95E-07
Am-241	0.001	1.38E-08
Cm-242	0.002	2.55E-08
Cm-243	0.002	3.83E-08

Other Contaminated Oil		
Nuclide	Percent Abundance	uCi/ml
H-3	31.923	4.92E-04
C-14	0.044	6.77E-07
Cr-51	4.875	7.51E-05
Mn-54	0.537	8.29E-06
Fe-55	3.107	4.81E-05
Fe-59	0.353	5.44E-06
Co-57	0.041	6.35E-07
Co-58	11.236	1.73E-04
Co-60	1.817	2.82E-05
Ni-59	0.157	2.43E-06
Ni-63	2.413	3.73E-05
Sr-90	0.137	2.11E-06
Zr-95	6.986	1.08E-04
Nb-95	28.822	4.45E-04
Tc-99	0.704	1.09E-05
Ru-103	0.773	1.19E-05
Ru-106	0.829	1.28E-05
Sb-125	0.105	1.61E-06
I-129	0.000	4.20E-10
Cs-137	0.086	1.32E-06
Ce-141	1.006	1.55E-05
Ce-144	3.996	6.16E-05
Pu-238	0.005	7.02E-08
Pu-239	0.002	2.87E-08
Pu-241	0.037	5.64E-07
Am-241	0.002	2.64E-08
Cm-242	0.003	4.89E-08
Cm-243	0.005	7.32E-08

Attachment A, 2006 Radioactive Effluent Release Report
2006 LLD's

Gaseous Effluents		Aqueous Effluents	
Nuclides	LLD (Ci/ml)	Nuclides	LLD (Ci/ml)
H-3	6.04 E-14	H-3	2.42 E-12
Ar-41	2.22 E-13	Na-24	2.03 E-14
Cr-51	4.12 E-18	Cr-51	3.24 E-13
Mn-54	8.14 E-19	Mn-54	6.86 E-14
Co-58	8.05 E-19	Fe-55	9.71 E-13
Fe-59	7.35 E-19	Co-57	3.22 E-14
Co-60	1.46 E-18	Co-58	1.49 E-14
Zn-65	1.55 E-18	Fe-59	4.36 E-14
Br-82	7.30 E-19	Co-60	8.62 E-14
Kr-85m	2.53 E-13	Zn-65	1.27 E-13
Kr-87	7.65 E-13	Sr-85	4.95 E-14
Kr-88	7.66 E-13	Sr-89	4.79 E-14
Sr-89	4.45 E-21	Sr-90	7.67 E-15
Sr-90	3.22 E-22	Sr-92	2.49 E-14
Mo-99	3.10 E-19	Nb-95	5.44 E-14
I-131	6.17 E-19	Zr-95	8.23 E-14
Xe-131m	8.27 E-12	Mo-99	2.86 E-14
I-133	9.08 E-19	Ag-110m	5.54 E-14
Xe-133	6.89 E-13	Sb-122	5.25 E-14
Xe-133m	1.53 E-12	Te-123m	3.35 E-14
Cs-134	3.21 E-19	Sb-124	5.10 E-14
I-135	2.82 E-18	Sb-125	1.18 E-13
Xe-135	1.66 E-13	Te-125m	9.79 E-12
Cs-137	5.46 E-19	Sb-126	4.06 E-14
Xe-138	1.28 E-12	I-131	3.86 E-14
Ba-140	2.23 E-18	I-132	3.85 E-14
La-140	4.10 E-19	Te-132	2.68 E-14
Ce-141	6.71 E-19	I-133	5.08 E-14
Ce-144	2.46 E-18	Xe-133	8.38 E-14
Gross Alpha	5.55 E-19	Cs-134	6.08 E-14
		Xe-135	3.44 E-14
		Cs-137	4.92 E-14
		Ba-140	1.56 E-13
		La-140	6.58 E-14
		Ce-141	4.95 E-14
		Ce-144	2.22 E-13
		Gross Alpha	8.82 E-14

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 5.992E+05
 Total Release Volume (cf)..... 5.953E+10
 Average Release Flowrate (cfm)..... 9.935E+04

 Average Period Flowrate (cfm)..... 1.133E+05

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	EC Ratio	EC
AR-41	1.11E+04	6.58E-12	6.58E-04	1.00E-08
KR-85M	8.41E+02	4.99E-13	4.99E-06	1.00E-07
KR-85	4.09E+04	2.43E-11	3.47E-05	7.00E-07
KR-88	1.13E+00	6.73E-16	7.47E-08	9.00E-09
XE-131M	3.23E+03	1.92E-12	9.58E-07	2.00E-06
XE-133M	4.97E+03	2.95E-12	4.92E-06	6.00E-07
XE-133	1.18E+07	6.98E-09	1.40E-02	5.00E-07
XE-135	2.00E+05	1.19E-10	1.70E-03	7.00E-08
F&AG	1.20E+07	7.13E-09	1.64E-02	
I-131	8.82E+01	5.23E-14	2.62E-04	2.00E-10
I-132	8.45E+02	5.01E-13	2.51E-05	2.00E-08
I-133	1.67E+02	9.91E-14	9.91E-05	1.00E-09
Iodine	1.10E+03	6.53E-13	3.86E-04	
H-3	8.20E+06	4.87E-09	4.87E-02	1.00E-07
H-3	8.20E+06	4.87E-09	4.87E-02	
Total	2.02E+07	1.20E-08	6.54E-02	

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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	INFANT	THYROID	2.53E-02	31-day Quarter Annual	2.25E-01 5.63E+00 1.13E+01	1.13E+01 4.50E-01 2.25E-01
T.Spec	Any Organ	INFANT	THYROID	2.53E-02	31-day Quarter Annual	3.00E-01 7.50E+00 1.50E+01	8.44E+00 3.38E-01 1.69E-01

Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Critical Pathway.....: 3 Grs/Goat/Milk (GMILK)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	2.08E+00
I-131	9.62E+01
I-132	8.55E-03
I-133	1.70E+00

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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
AGPD	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	0.00E+00	3.55E-07
AINHL	6.62E-08	8.41E-05	1.05E-04	8.42E-05	8.40E-05	8.40E-05	0.00E+00	8.41E-05
AVEG	8.90E-07	1.52E-04	5.59E-04	1.53E-04	1.51E-04	1.51E-04	0.00E+00	1.51E-04
AGMILK	3.83E-06	1.09E-04	1.88E-03	1.13E-04	1.04E-04	1.05E-04	0.00E+00	1.07E-04
ACMEAT	1.13E-07	2.18E-05	7.46E-05	2.19E-05	2.17E-05	2.17E-05	0.00E+00	2.18E-05
ACMILK	3.19E-06	5.55E-05	1.53E-03	5.88E-05	5.09E-05	5.22E-05	0.00E+00	5.35E-05
TGPD	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	0.00E+00	3.55E-07
TINHL	9.27E-08	8.49E-05	1.12E-04	8.50E-05	8.47E-05	8.48E-05	0.00E+00	8.48E-05
TVEG	8.46E-07	1.74E-04	5.12E-04	1.75E-04	1.72E-04	1.73E-04	0.00E+00	1.73E-04
TGMILK	6.95E-06	1.45E-04	2.94E-03	1.52E-04	1.35E-04	1.37E-04	0.00E+00	1.40E-04
TCMEAT	9.38E-08	1.30E-05	5.12E-05	1.31E-05	1.29E-05	1.29E-05	0.00E+00	1.30E-05
TCMILK	5.79E-06	7.44E-05	2.41E-03	8.03E-05	6.62E-05	6.80E-05	0.00E+00	7.05E-05
CGPD	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	0.00E+00	3.55E-07
CINHL	1.25E-07	7.50E-05	1.07E-04	7.51E-05	7.48E-05	7.49E-05	0.00E+00	7.49E-05
CVEG	1.57E-06	2.69E-04	7.83E-04	2.70E-04	2.68E-04	2.68E-04	0.00E+00	2.69E-04
CGMILK	1.68E-05	2.31E-04	5.78E-03	2.42E-04	2.14E-04	2.16E-04	0.00E+00	2.24E-04
CCMEAT	1.74E-07	1.58E-05	7.35E-05	1.59E-05	1.56E-05	1.57E-05	0.00E+00	1.57E-05
CCMILK	1.40E-05	1.19E-04	4.74E-03	1.28E-04	1.05E-04	1.06E-04	0.00E+00	1.13E-04
IGPD	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	3.55E-07	0.00E+00	3.55E-07
IINHL	9.96E-08	4.32E-05	7.22E-05	4.32E-05	4.31E-05	4.31E-05	0.00E+00	4.31E-05
IGMILK	3.52E-05	3.66E-04	1.38E-02	3.73E-04	3.25E-04	3.26E-04	0.00E+00	3.43E-04
ICMILK	2.93E-05	1.94E-04	1.14E-02	2.00E-04	1.59E-04	1.61E-04	0.00E+00	1.74E-04
----- TOTALS -----								
ADULT	8.44E-06	4.23E-04	4.15E-03	4.31E-04	4.11E-04	4.15E-04	0.00E+00	4.18E-04
TEEN	1.41E-05	4.91E-04	6.03E-03	5.05E-04	4.72E-04	4.76E-04	0.00E+00	4.82E-04
CHILD	3.31E-05	7.11E-04	1.15E-02	7.32E-04	6.78E-04	6.81E-04	0.00E+00	6.96E-04
INFANT	6.49E-05	6.04E-04	2.53E-02	6.17E-04	5.27E-04	5.30E-04	0.00E+00	5.61E-04

=== AGE GROUP / PATHWAY DESCRIPTIONS ===		
Abbreviation	Age Group	Pathway
AGPD	ADULT	Ground Plane Deposition (GPD)
AINHL	ADULT	Inhalation (INHL)
AVEG	ADULT	Vegetation (VEG)
AGMILK	ADULT	Grs/Goat/Milk (GMILK)
ACMEAT	ADULT	Grs/Cow/Meat (CMEAT)
ACMILK	ADULT	Grs/Cow/Milk (CMILK)
TGPD	TEEN	Ground Plane Deposition (GPD)
TINHL	TEEN	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....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

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

Abbreviation	Age Group	Pathway
TVEG	TEEN	Vegetation (VEG)
TGMILK	TEEN	Grs/Goat/Milk (GMILK)
TCMEAT	TEEN	Grs/Cow/Meat (CMEAT)
TCMILK	TEEN	Grs/Cow/Milk (CMILK)
CGPD	CHILD	Ground Plane Deposition (GPD)
CINHL	CHILD	Inhalation (INHL)
CVEG	CHILD	Vegetation (VEG)
CGMILK	CHILD	Grs/Goat/Milk (GMILK)
CCMEAT	CHILD	Grs/Cow/Meat (CMEAT)
CCMILK	CHILD	Grs/Cow/Milk (CMILK)
IGPD	INFANT	Ground Plane Deposition (GPD)
IINHL	INFANT	Inhalation (INHL)
IGMILK	INFANT	Grs/Goat/Milk (GMILK)
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....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== MAXIMUM NG DOSE FOR PERIOD =====

Limit Type	Dose Type	Dose (mrad)	Limit Period	Limit (mrad)	Percent of Limit
Admin	Gamma	2.69E-04	31-day	1.50E-01	1.80E-01
			Quarter	3.75E+00	7.18E-03
			Annual	7.50E+00	3.59E-03
Admin	Beta	1.85E-04	31-day	3.00E-01	6.16E-02
			Quarter	7.50E+00	2.47E-03
			Annual	1.50E+01	1.23E-03
T.Spec	Gamma	2.69E-04	31-day	2.00E-01	1.35E-01
			Quarter	5.00E+00	5.39E-03
			Annual	1.00E+01	2.69E-03

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	2.22E+00
KR-85M	2.23E-02
KR-85	1.52E-02
KR-88	3.71E-04
XE-131M	1.09E-02
XE-133M	3.50E-02
XE-133	8.94E+01
XE-135	8.28E+00

T.Spec	Beta	1.85E-04	31-day	4.00E-01	4.62E-02
			Quarter	1.00E+01	1.85E-03
			Annual	2.00E+01	9.25E-04

Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters).....: 0.0
 Compass Point.....: 0.0

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 1

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

Nuclide	Percentage
AR-41	2.81E-01
KR-85M	1.28E-02
KR-85	6.16E-01
KR-88	2.56E-05
XE-131M	2.77E-02
XE-133M	5.67E-02
XE-133	9.52E+01
XE-135	3.80E+00

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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)..... 5.383E+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	1.08E+01
SB-124	5.01E+00
SB-125	1.23E+02
TE-123M	9.49E+00
CR-51	1.14E+03
MN-54	7.16E+01
FE-59	7.28E+01
CO-58	5.51E+03
CO-60	2.18E+03
ZR-95	2.70E+01
NB-95	6.16E+01
MO-99	4.63E+00
RU-103	2.47E+01
AG-110M	7.22E+00
TE-125M	7.32E+02
TE-132	7.11E+01
I-132	1.01E+02
CS-137	1.33E+01
LA-140	6.65E+01
Gamma	1.02E+04
KR-85	6.79E+02
XE-133	2.48E+03
D&EG	3.16E+03

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 00:00
Period Duration (mins): 5.256E+05

=== NUCLIDE DATA =====

Nuclide	uCi
SR-85	2.97E+00
H-3	1.13E+09
Beta	1.13E+09
Total	1.13E+09

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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	1.43E-06	2.52E-02	2.52E-02	2.52E-02	2.52E-02	2.53E-02	0.00E+00	2.52E-02
AFWFSp	3.50E-03	6.98E-02	6.56E-02	7.07E-02	6.57E-02	1.27E-01	0.00E+00	6.88E-02
TPWtr	1.41E-06	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	0.00E+00	1.78E-02
TFWFSp	3.76E-03	5.48E-02	5.05E-02	5.19E-02	5.06E-02	9.42E-02	0.00E+00	5.27E-02
CPWtr	4.14E-06	3.41E-02	3.41E-02	3.41E-02	3.41E-02	3.41E-02	0.00E+00	3.41E-02
CFWFSp	4.75E-03	4.57E-02	4.20E-02	4.30E-02	4.19E-02	5.72E-02	0.00E+00	4.35E-02
IPWtr	5.09E-06	3.35E-02	3.35E-02	3.35E-02	3.35E-02	3.35E-02	0.00E+00	3.35E-02

----- TOTALS -----

ADULT	3.50E-03	9.50E-02	9.08E-02	9.59E-02	9.09E-02	1.53E-01	0.00E+00	9.40E-02
TEEN	3.76E-03	7.25E-02	6.82E-02	6.97E-02	6.84E-02	1.12E-01	0.00E+00	7.05E-02
CHILD	4.76E-03	7.98E-02	7.61E-02	7.71E-02	7.60E-02	9.14E-02	0.00E+00	7.76E-02
INFANT	5.09E-06	3.35E-02	3.35E-02	3.35E-02	3.35E-02	3.35E-02	0.00E+00	3.35E-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.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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

ADULT

H-3	0.00E+00	9.05E-02	9.05E-02	9.05E-02	9.05E-02	9.05E-02	0.00E+00	9.05E-02
CR-51	0.00E+00	0.00E+00	4.22E-07	1.55E-07	9.36E-07	1.77E-04	0.00E+00	7.06E-07
MN-54	0.00E+00	1.52E-04	0.00E+00	4.52E-05	0.00E+00	4.65E-04	0.00E+00	2.90E-05
FE-59	3.67E-05	8.63E-05	0.00E+00	0.00E+00	2.41E-05	2.88E-04	0.00E+00	3.31E-05
CO-58	0.00E+00	2.39E-04	0.00E+00	0.00E+00	0.00E+00	4.85E-03	0.00E+00	5.37E-04
CO-60	0.00E+00	2.72E-04	0.00E+00	0.00E+00	0.00E+00	5.11E-03	0.00E+00	6.00E-04
ZR-95	3.46E-09	1.11E-09	0.00E+00	1.74E-09	0.00E+00	3.52E-06	0.00E+00	7.52E-10
NB-95	1.33E-05	7.41E-06	0.00E+00	7.32E-06	0.00E+00	4.50E-02	0.00E+00	3.98E-06
MO-99	0.00E+00	2.39E-07	0.00E+00	5.41E-07	0.00E+00	5.54E-07	0.00E+00	4.55E-08
RU-103	5.47E-08	0.00E+00	0.00E+00	2.09E-07	0.00E+00	6.39E-06	0.00E+00	2.36E-08
AG-110M	3.54E-09	3.28E-09	0.00E+00	6.45E-09	0.00E+00	1.34E-06	0.00E+00	1.95E-09
TE-125M	9.09E-04	3.29E-04	2.73E-04	3.70E-03	0.00E+00	3.63E-03	0.00E+00	1.22E-04
TE-132	8.31E-05	5.38E-05	5.94E-05	5.18E-04	0.00E+00	2.54E-03	0.00E+00	5.05E-05
I-132	3.63E-07	9.72E-07	3.40E-05	1.55E-06	0.00E+00	1.83E-07	0.00E+00	3.40E-07
CS-137	2.46E-03	3.36E-03	0.00E+00	1.14E-03	3.79E-04	6.51E-05	0.00E+00	2.20E-03
LA-140	4.88E-09	2.46E-09	0.00E+00	0.00E+00	0.00E+00	1.81E-04	0.00E+00	6.50E-10

TEEN

H-3	0.00E+00	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02	0.00E+00	6.79E-02
CR-51	0.00E+00	0.00E+00	4.04E-07	1.59E-07	1.04E-06	1.22E-04	0.00E+00	7.27E-07
MN-54	0.00E+00	1.49E-04	0.00E+00	4.45E-05	0.00E+00	3.06E-04	0.00E+00	2.96E-05
FE-59	3.78E-05	8.83E-05	0.00E+00	0.00E+00	2.78E-05	2.09E-04	0.00E+00	3.41E-05
CO-58	0.00E+00	2.38E-04	0.00E+00	0.00E+00	0.00E+00	3.28E-03	0.00E+00	5.48E-04
CO-60	0.00E+00	2.72E-04	0.00E+00	0.00E+00	0.00E+00	3.55E-03	0.00E+00	6.13E-04
ZR-95	3.55E-09	1.12E-09	0.00E+00	1.65E-09	0.00E+00	2.58E-06	0.00E+00	7.70E-10
NB-95	1.34E-05	7.44E-06	0.00E+00	7.21E-06	0.00E+00	3.18E-02	0.00E+00	4.09E-06
MO-99	0.00E+00	2.54E-07	0.00E+00	5.82E-07	0.00E+00	4.55E-07	0.00E+00	4.85E-08
RU-103	5.73E-08	0.00E+00	0.00E+00	2.02E-07	0.00E+00	4.79E-06	0.00E+00	2.45E-08
AG-110M	3.42E-09	3.24E-09	0.00E+00	6.18E-09	0.00E+00	9.10E-07	0.00E+00	1.97E-09
TE-125M	9.90E-04	3.57E-04	2.77E-04	0.00E+00	0.00E+00	2.92E-03	0.00E+00	1.32E-04
TE-132	8.77E-05	5.55E-05	5.86E-05	5.33E-04	0.00E+00	1.76E-03	0.00E+00	5.23E-05
I-132	3.80E-07	9.94E-07	3.35E-05	1.57E-06	0.00E+00	4.33E-07	0.00E+00	3.57E-07
CS-137	2.63E-03	3.50E-03	0.00E+00	1.19E-03	4.63E-04	4.98E-05	0.00E+00	1.22E-03
LA-140	5.17E-09	2.54E-09	0.00E+00	0.00E+00	0.00E+00	1.46E-04	0.00E+00	6.76E-10

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 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

CHILD

Table with 9 columns: Agegroup, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include H-3, CR-51, MN-54, FE-59, CO-58, CO-60, ZR-95, NB-95, MO-99, RU-103, AG-110M, TE-125M, TE-132, I-132, CS-137, LA-140.

INFANT

Table with 9 columns: Agegroup, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include H-3, CR-51, MN-54, FE-59, CO-58, CO-60, ZR-95, NB-95, MO-99, RU-103, AG-110M, TE-125M, TE-132, I-132, CS-137, LA-140.

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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	1.53E-01	31-day Quarter Annual	1.50E-01 3.75E+00 7.50E+00	1.02E+02 4.07E+00 2.04E+00
Admin	Tot Body	ADULT	TBODY	9.40E-02	31-day Quarter Annual	4.50E-02 1.13E+00 2.25E+00	2.09E+02 8.36E+00 4.18E+00
T.Spec	Any Organ	ADULT	GILLI	1.53E-01	31-day Quarter Annual	2.00E-01 5.00E+00 1.00E+01	7.64E+01 3.05E+00 1.53E+00

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

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.04E-01
FE-59	1.88E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.30E-03
NB-95	2.94E+01
MO-99	3.63E-04
RU-103	4.18E-03
AG-110M	8.76E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

T.Spec	Tot Body	ADULT	TBODY	9.40E-02	31-day Quarter Annual	6.00E-02 1.50E+00 3.00E+00	1.57E+02 6.27E+00 3.13E+00
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Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 00:00
Period Duration (mins): 5.256E+05

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

Nuclide	Percentage
-----	-----
H-3	9.62E+01
CR-51	7.51E-04
MN-54	3.08E-02
FE-59	3.52E-02
CO-58	5.71E-01
CO-60	6.38E-01
ZR-95	8.00E-07
NB-95	4.24E-03
MO-99	4.84E-05
RU-103	2.51E-05
AG-110M	2.07E-06
TE-125M	1.30E-01
TE-132	5.37E-02
I-132	3.62E-04
CS-137	2.34E+00
LA-140	6.92E-07

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 5.554E+05
 Total Release Volume (cf)..... 7.837E+10
 Average Release Flowrate (cfm)..... 1.411E+05
 Average Period Flowrate (cfm)..... 1.491E+05

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	EC Ratio	EC
AR-41	4.35E+03	1.96E-12	1.96E-04	1.00E-08
KR-85M	8.39E+01	3.78E-14	3.78E-07	1.00E-07
KR-85	4.09E+04	1.85E-11	2.64E-05	7.00E-07
KR-88	1.13E+00	5.11E-16	5.68E-08	9.00E-09
XE-131M	3.04E+04	1.37E-11	6.84E-06	2.00E-06
XE-133M	8.93E+03	4.02E-12	6.70E-06	6.00E-07
XE-133	2.30E+06	1.04E-09	2.07E-03	5.00E-07
XE-135	2.59E+04	1.17E-11	1.67E-04	7.00E-08
F&AG	2.41E+06	1.09E-09	2.48E-03	
I-131	1.62E+02	7.32E-14	3.66E-04	2.00E-10
I-132	1.16E+03	5.21E-13	2.60E-05	2.00E-08
I-133	4.47E+01	2.01E-14	2.01E-05	1.00E-09
Iodine	1.36E+03	6.14E-13	4.12E-04	
H-3	2.45E+07	1.10E-08	1.10E-01	1.00E-07
H-3	2.45E+07	1.10E-08	1.10E-01	
CR-51	7.20E+00	3.25E-15	1.08E-07	3.00E-08
CO-58	1.18E+00	5.30E-16	5.30E-07	1.00E-09
CO-60	1.88E+00	8.47E-16	1.69E-05	5.00E-11
P>=8	1.03E+01	4.62E-15	1.76E-05	
Total	2.69E+07	1.21E-08	1.13E-01	

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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	INFANT	THYROID	4.66E-02	31-day	2.25E-01	2.07E+01
					Quarter	5.63E+00	8.28E-01
					Annual	1.13E+01	4.14E-01
T.Spec	Any Organ	INFANT	THYROID	4.66E-02	31-day	3.00E-01	1.55E+01
					Quarter	7.50E+00	6.21E-01
					Annual	1.50E+01	3.10E-01

Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters).....: 0.0
 Compass Point.....: 0.0
 Critical Pathway.....: 3 Grs/Goat/Milk (GMILK)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	3.38E+00
CR-51	8.81E-06
CO-58	1.14E-04
CO-60	1.18E-02
I-131	9.64E+01
I-132	6.36E-03
I-133	2.47E-01

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

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== PERIOD ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===								
Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
AGPD	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	0.00E+00	6.07E-06
AINHL	8.29E-08	2.51E-04	2.82E-04	2.51E-04	2.51E-04	2.51E-04	0.00E+00	2.51E-04
AVEG	1.57E-06	4.53E-04	1.19E-03	4.54E-04	4.50E-04	4.52E-04	0.00E+00	4.52E-04
AGMILK	6.90E-06	3.20E-04	3.54E-03	3.27E-04	3.10E-04	3.13E-04	0.00E+00	3.16E-04
ACMEAT	2.08E-07	6.51E-05	1.62E-04	6.53E-05	6.47E-05	6.52E-05	0.00E+00	6.50E-05
ACMILK	5.75E-06	1.60E-04	2.84E-03	1.66E-04	1.52E-04	1.54E-04	0.00E+00	1.57E-04
TGPD	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	0.00E+00	6.07E-06
TINHL	1.16E-07	2.53E-04	2.91E-04	2.54E-04	2.54E-04	2.53E-04	0.00E+00	2.53E-04
TVEG	1.50E-06	5.18E-04	1.13E-03	5.19E-04	5.15E-04	5.17E-04	0.00E+00	5.17E-04
TGMILK	1.25E-05	4.21E-04	5.51E-03	4.34E-04	4.04E-04	4.07E-04	0.00E+00	4.13E-04
TCMEAT	1.73E-07	3.88E-05	1.09E-04	3.90E-05	3.86E-05	3.88E-05	0.00E+00	3.87E-05
TCMILK	1.04E-05	2.12E-04	4.45E-03	2.23E-04	1.98E-04	2.01E-04	0.00E+00	2.06E-04
CGPD	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	0.00E+00	6.07E-06
CINHL	1.57E-07	2.24E-04	2.67E-04	2.24E-04	2.24E-04	2.24E-04	0.00E+00	2.24E-04
CVEG	2.79E-06	8.03E-04	1.72E-03	8.05E-04	8.00E-04	8.01E-04	0.00E+00	8.02E-04
CGMILK	3.04E-05	6.70E-04	1.07E-02	6.90E-04	6.39E-04	6.42E-04	0.00E+00	6.57E-04
CCMEAT	3.20E-07	4.71E-05	1.53E-04	4.73E-05	4.68E-05	4.69E-05	0.00E+00	4.70E-05
CCMILK	2.53E-05	3.39E-04	8.72E-03	3.55E-04	3.13E-04	3.16E-04	0.00E+00	3.28E-04
IGPD	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	6.07E-06	0.00E+00	6.07E-06
IINHL	1.24E-07	1.29E-04	1.68E-04	1.29E-04	1.29E-04	1.29E-04	0.00E+00	1.29E-04
IGMILK	6.34E-05	1.05E-03	2.55E-02	1.06E-03	9.70E-04	9.73E-04	0.00E+00	1.00E-03
ICMILK	5.28E-05	5.38E-04	2.09E-02	5.48E-04	4.76E-04	4.78E-04	0.00E+00	5.03E-04
----- TOTALS -----								
ADULT	2.06E-05	1.26E-03	8.02E-03	1.27E-03	1.23E-03	1.24E-03	0.00E+00	1.25E-03
TEEN	3.08E-05	1.45E-03	1.15E-02	1.47E-03	1.41E-03	1.42E-03	0.00E+00	1.43E-03
CHILD	6.50E-05	2.09E-03	2.16E-02	2.13E-03	2.03E-03	2.04E-03	0.00E+00	2.06E-03
INFANT	1.22E-04	1.72E-03	4.66E-02	1.74E-03	1.58E-03	1.59E-03	0.00E+00	1.64E-03

=== AGE GROUP / PATHWAY DESCRIPTIONS ===		
Abbreviation	Age Group	Pathway
AGPD	ADULT	Ground Plane Deposition (GPD)
AINHL	ADULT	Inhalation (INHL)
AVEG	ADULT	Vegetation (VEG)
AGMILK	ADULT	Grs/Goat/Milk (GMILK)
ACMEAT	ADULT	Grs/Cow/Meat (CMEAT)
ACMILK	ADULT	Grs/Cow/Milk (CMILK)
TGPD	TEEN	Ground Plane Deposition (GPD)
TINHL	TEEN	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....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (min): 5.256E+05
 Coefficient Type.....: Historical
 Unit.....: 2

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

Abbreviation	Age Group	Pathway
TVEG	TEEN	Vegetation (VEG)
TGMILK	TEEN	Grs/Goat/Milk (GMILK)
TCMEAT	TEEN	Grs/Cow/Meat (CMEAT)
TCMILK	TEEN	Grs/Cow/Milk (CMILK)
CGPD	CHILD	Ground Plane Deposition (GPD)
CINHL	CHILD	Inhalation (INHL)
CVEG	CHILD	Vegetation (VEG)
CGMILK	CHILD	Grs/Goat/Milk (GMILK)
CCMEAT	CHILD	Grs/Cow/Meat (CMEAT)
CCMILK	CHILD	Grs/Cow/Milk (CMILK)
IGPD	INFANT	Ground Plane Deposition (GPD)
IINHL	INFANT	Inhalation (INHL)
IGMILK	INFANT	Grs/Goat/Milk (GMILK)
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....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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	5.28E-05	31-day	1.50E-01	3.52E-02
			Quarter	3.75E+00	1.41E-03
			Annual	7.50E+00	7.05E-04
Admin	Beta	3.74E-05	31-day	3.00E-01	1.25E-02
			Quarter	7.50E+00	4.98E-04
			Annual	1.50E+01	2.49E-04
T.Spec	Gamma	5.28E-05	31-day	2.00E-01	2.64E-02
			Quarter	5.00E+00	1.06E-03
			Annual	1.00E+01	5.28E-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	4.44E+00
KR-85M	1.13E-02
KR-85	7.73E-02
KR-88	1.89E-03
XE-131M	5.20E-01
XE-133M	3.20E-01
XE-133	8.92E+01
XE-135	5.46E+00

Limit Type	Dose Type	Dose (mrad)	Limit Period	Limit (mrad)	Percent of Limit
T.Spec	Beta	3.74E-05	31-day	4.00E-01	9.34E-03
			Quarter	1.00E+01	3.74E-04
			Annual	2.00E+01	1.87E-04

Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters).....: 0.0
 Compass Point.....: 0.0

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

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 00:00
Period Duration (min): 5.256E+05
Coefficient Type.....: Historical
Unit.....: 2

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

Nuclide	Percentage
AR-41	5.44E-01
KR-85M	6.31E-03
KR-85	3.05E+00
KR-88	1.27E-04
XE-131M	1.29E+00
XE-133M	5.04E-01
XE-133	9.22E+01
XE-135	2.43E+00

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 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)..... 5.383E+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	1.08E+01
SB-124	5.01E+00
SB-125	1.23E+02
TE-123M	9.49E+00
CR-51	1.14E+03
MN-54	7.16E+01
FE-59	7.28E+01
CO-58	5.51E+03
CO-60	2.18E+03
ZR-95	2.70E+01
NB-95	6.16E+01
MO-99	4.63E+00
RU-103	2.47E+01
AG-110M	7.22E+00
TE-125M	7.32E+02
TE-132	7.11E+01
I-132	1.01E+02
CS-137	1.33E+01
LA-140	6.65E+01
Gamma	1.02E+04
KR-85	6.79E+02
XE-133	2.48E+03
D&EG	3.16E+03

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 00:00
Period Duration (mins): 5.256E+05

=== NUCLIDE DATA =====

Nuclide	uCi
SR-85	2.97E+00
H-3	1.13E+09
Beta	1.13E+09
Total	1.13E+09

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 00:00
Period Duration (mins): 5.256E+05
Unit.....: 2
Receptor.....: 0 Liquid Receptor

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

Table with 9 columns: Age/Path, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include APWtr, AFWFSp, TPWtr, TFWFSp, CPWtr, CFWFSp, IPWtr.

TOTALS

Summary table with 9 columns: Age/Path, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include ADULT, TEEN, CHILD, INFANT.

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

Table with 3 columns: Abbreviation, Age Group, Pathway. Rows include APWtr, AFWFSp, TPWtr, TFWFSp, CPWtr, CFWFSp, IPWtr.

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (mins): 5.256E+05
 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
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ADULT								
H-3	0.00E+00	9.05E-02	9.05E-02	9.05E-02	9.05E-02	9.05E-02	0.00E+00	9.05E-02
CR-51	0.00E+00	0.00E+00	4.22E-07	1.55E-07	9.36E-07	1.77E-04	0.00E+00	7.06E-07
MN-54	0.00E+00	1.52E-04	0.00E+00	4.52E-05	0.00E+00	4.65E-04	0.00E+00	2.90E-05
FE-59	3.67E-05	8.63E-05	0.00E+00	0.00E+00	2.41E-05	2.88E-04	0.00E+00	3.31E-05
CO-58	0.00E+00	2.39E-04	0.00E+00	0.00E+00	0.00E+00	4.85E-03	0.00E+00	5.37E-04
CO-60	0.00E+00	2.72E-04	0.00E+00	0.00E+00	0.00E+00	5.11E-03	0.00E+00	6.00E-04
ZR-95	3.46E-09	1.11E-09	0.00E+00	1.74E-09	0.00E+00	3.52E-06	0.00E+00	7.52E-10
NB-95	1.33E-05	7.41E-06	0.00E+00	7.32E-06	0.00E+00	4.50E-02	0.00E+00	3.98E-06
MO-99	0.00E+00	2.39E-07	0.00E+00	5.41E-07	0.00E+00	5.54E-07	0.00E+00	4.55E-08
RU-103	5.47E-08	0.00E+00	0.00E+00	2.09E-07	0.00E+00	6.39E-06	0.00E+00	2.36E-08
AG-110M	3.54E-09	3.28E-09	0.00E+00	6.45E-09	0.00E+00	1.34E-06	0.00E+00	1.95E-09
TE-125M	9.09E-04	3.29E-04	2.73E-04	3.70E-03	0.00E+00	3.63E-03	0.00E+00	1.22E-04
TE-132	8.31E-05	5.38E-05	5.94E-05	5.18E-04	0.00E+00	2.54E-03	0.00E+00	5.05E-05
I-132	3.63E-07	9.72E-07	3.40E-05	1.55E-06	0.00E+00	1.83E-07	0.00E+00	3.40E-07
CS-137	2.46E-03	3.36E-03	0.00E+00	1.14E-03	3.79E-04	6.51E-05	0.00E+00	2.20E-03
LA-140	4.88E-09	2.46E-09	0.00E+00	0.00E+00	0.00E+00	1.81E-04	0.00E+00	6.50E-10

TEEN								
H-3	0.00E+00	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02	0.00E+00	6.79E-02
CR-51	0.00E+00	0.00E+00	4.04E-07	1.59E-07	1.04E-06	1.22E-04	0.00E+00	7.27E-07
MN-54	0.00E+00	1.49E-04	0.00E+00	4.45E-05	0.00E+00	3.06E-04	0.00E+00	2.96E-05
FE-59	3.78E-05	8.83E-05	0.00E+00	0.00E+00	2.78E-05	2.09E-04	0.00E+00	3.41E-05
CO-58	0.00E+00	2.38E-04	0.00E+00	0.00E+00	0.00E+00	3.28E-03	0.00E+00	5.48E-04
CO-60	0.00E+00	2.72E-04	0.00E+00	0.00E+00	0.00E+00	3.55E-03	0.00E+00	6.13E-04
ZR-95	3.55E-09	1.12E-09	0.00E+00	1.65E-09	0.00E+00	2.58E-06	0.00E+00	7.70E-10
NB-95	1.34E-05	7.44E-06	0.00E+00	7.21E-06	0.00E+00	3.18E-02	0.00E+00	4.09E-06
MO-99	0.00E+00	2.54E-07	0.00E+00	5.82E-07	0.00E+00	4.55E-07	0.00E+00	4.85E-08
RU-103	5.73E-08	0.00E+00	0.00E+00	2.02E-07	0.00E+00	4.79E-06	0.00E+00	2.45E-08
AG-110M	3.42E-09	3.24E-09	0.00E+00	6.18E-09	0.00E+00	9.10E-07	0.00E+00	1.97E-09
TE-125M	9.90E-04	3.57E-04	2.77E-04	0.00E+00	0.00E+00	2.92E-03	0.00E+00	1.32E-04
TE-132	8.77E-05	5.55E-05	5.86E-05	5.33E-04	0.00E+00	1.76E-03	0.00E+00	5.23E-05
I-132	3.80E-07	9.94E-07	3.35E-05	1.57E-06	0.00E+00	4.33E-07	0.00E+00	3.57E-07
CS-137	2.63E-03	3.50E-03	0.00E+00	1.19E-03	4.63E-04	4.98E-05	0.00E+00	1.22E-03
LA-140	5.17E-09	2.54E-09	0.00E+00	0.00E+00	0.00E+00	1.46E-04	0.00E+00	6.76E-10

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

Release ID.....: 1 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 01/01/2007 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

Table with 9 columns: Agegroup, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include CHILD (H-3, CR-51, MN-54, FE-59, CO-58, CO-60, ZR-95, NB-95, MO-99, RU-103, AG-110M, TE-125M, TE-132, I-132, CS-137, LA-140).

Table with 9 columns: Agegroup, Bone, Liver, Thyroid, Kidney, Lung, GI-Lli, Skin, TB. Rows include INFANT (H-3, CR-51, MN-54, FE-59, CO-58, CO-60, ZR-95, NB-95, MO-99, RU-103, AG-110M, TE-125M, TE-132, I-132, CS-137, LA-140).

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (mins): 5.256E+05
 Unit.....: 2
 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	1.53E-01	31-day Quarter Annual	1.50E-01 3.75E+00 7.50E+00	1.02E+02 4.07E+00 2.04E+00
Admin	Tot Body	ADULT	TBODY	9.40E-02	31-day Quarter Annual	4.50E-02 1.13E+00 2.25E+00	2.09E+02 8.36E+00 4.18E+00
T.Spec	Any Organ	ADULT	GILLI	1.53E-01	31-day Quarter Annual	2.00E-01 5.00E+00 1.00E+01	7.64E+01 3.05E+00 1.53E+00

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

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.04E-01
FE-59	1.88E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.30E-03
NB-95	2.94E+01
MO-99	3.63E-04
RU-103	4.18E-03
AG-110M	8.76E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

T.Spec	Tot Body	ADULT	TBODY	9.40E-02	31-day Quarter Annual	6.00E-02 1.50E+00 3.00E+00	1.57E+02 6.27E+00 3.13E+00
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Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)

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

Release ID.....: 1 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 01/01/2007 00:00
 Period Duration (mins): 5.256E+05

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

Nuclide	Percentage
-----	-----
H-3	9.62E+01
CR-51	7.51E-04
MN-54	3.08E-02
FE-59	3.52E-02
CO-58	5.71E-01
CO-60	6.38E-01
ZR-95	8.00E-07
NB-95	4.24E-03
MO-99	4.84E-05
RU-103	2.51E-05
AG-110M	2.07E-06
TE-125M	1.30E-01
TE-132	5.37E-02
I-132	3.62E-04
CS-137	2.34E+00
LA-140	6.92E-07

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit One

								Liquid Receptor
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===								QUARTER 1
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	0.00E+00	4.59E-02	4.56E-02	4.56E-02	4.56E-02	5.15E-02	0.00E+00	4.63E-02
TEEN	0.00E+00	3.45E-02	3.42E-02	3.42E-02	3.42E-02	3.82E-02	0.00E+00	3.49E-02
CHILD	0.00E+00	3.83E-02	3.81E-02	3.81E-02	3.81E-02	3.95E-02	0.00E+00	3.88E-02
INFANT	0.00E+00	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	0.00E+00	1.69E-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	5.15E-02	3.75E+00	1.37E+00		
Qtr 1 - Admin. Total Body	ADULT	TBODY	4.63E-02	1.13E+00	4.11E+00		
Qtr 1 - T.Spc. Any Organ	ADULT	GILLI	5.15E-02	5.00E+00	1.03E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.86E+01
CO-58	8.65E+00
CO-60	2.74E+00

Qtr 1 - T.Spc. Total Body	ADULT	TBODY	4.63E-02	1.50E+00	3.08E+00
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Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.86E+01
CO-58	1.06E+00
CO-60	3.59E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit One

Liquid Receptor

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

Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	1.02E-02	5.23E-02	4.52E-02	4.74E-02	4.60E-02	5.25E-02	0.00E+00	5.03E-02
TEEN	1.01E-02	4.13E-02	3.39E-02	3.62E-02	3.49E-02	3.90E-02	0.00E+00	3.72E-02
CHILD	1.20E-02	4.44E-02	3.78E-02	3.98E-02	3.86E-02	3.95E-02	0.00E+00	3.97E-02
INFANT	1.02E-04	1.67E-02	1.67E-02	1.67E-02	1.67E-02	1.67E-02	0.00E+00	1.67E-02

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 2 - Admin. Any Organ	ADULT	GILLI	5.25E-02	3.75E+00	1.40E+00
Qtr 2 - Admin. Total Body	ADULT	TBODY	5.03E-02	1.13E+00	4.47E+00
Qtr 2 - T.Spc. Any Organ	ADULT	GILLI	5.25E-02	5.00E+00	1.05E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.61E+01
MN-54	8.98E-01
FE-55	2.54E-01
CO-58	2.44E+00
CO-60	9.69E+00
SR-89	1.13E-01
SR-90	2.33E-01
CS-137	2.36E-01

Qtr 2 - T.Spc. Total Body	ADULT	TBODY	5.03E-02	1.50E+00	3.35E+00
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Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.98E+01
MN-54	5.83E-02
FE-55	1.08E-01
CO-58	2.82E-01
CO-60	1.19E+00
SR-89	2.12E-02
SR-90	1.94E-01
CS-137	8.33E+00

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit One

								Liquid Receptor
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) =====								QUARTER 3 =====
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	2.44E-03	3.86E-02	3.77E-02	3.82E-02	3.78E-02	6.44E-02	0.00E+00	3.85E-02
TEEN	2.30E-03	2.92E-02	2.83E-02	2.88E-02	2.84E-02	4.71E-02	0.00E+00	2.89E-02
CHILD	2.65E-03	3.23E-02	3.16E-02	3.19E-02	3.16E-02	3.81E-02	0.00E+00	3.21E-02
INFANT	3.66E-05	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	0.00E+00	1.39E-02

=== 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	6.44E-02	3.75E+00	1.72E+00		
Qtr 3 - Admin. Total Body	ADULT	TBODY	3.85E-02	1.13E+00	3.42E+00		
Qtr 3 - T.Spc. Any Organ	ADULT	GILLI	6.44E-02	5.00E+00	1.29E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.85E+01
CR-51	1.70E-01
MN-54	2.64E-01
FE-55	7.43E-02
FE-59	3.00E-01
CO-58	2.05E+00
CO-60	2.84E+00
SR-89	3.32E-02
SR-90	6.81E-02
ZR-95	2.94E-03
NB-95	3.28E+01
MO-99	5.79E-04
RU-103	6.67E-03
AG-110M	1.40E-03
TE-132	2.66E+00
I-132	1.91E-04
CS-137	1.46E-02
LA-140	1.89E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 LIQUID DOSE SUMMARY

Report for: 2006
 Unit One

Qtr 3 - T.Spc. Total Body ADULT TBODY 3.85E-02 1.50E+00 2.56E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.79E+01
CR-51	1.14E-03
MN-54	2.75E-02
FE-55	5.06E-02
FE-59	5.78E-02
CO-58	3.80E-01
CO-60	5.57E-01
SR-89	9.94E-03
SR-90	9.11E-02
ZR-95	1.05E-06
NB-95	4.87E-03
MO-99	7.95E-05
RU-103	4.12E-05
AG-110M	3.40E-06
TE-132	8.82E-02
I-132	5.95E-04
CS-137	8.28E-01
LA-140	1.14E-06

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit One

Agegrp	Liquid Receptor							
	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	3.75E-03	4.23E-02	4.17E-02	5.31E-02	4.08E-02	1.05E-01	0.00E+00	4.20E-02
TEEN	3.96E-03	3.22E-02	3.15E-02	3.06E-02	3.06E-02	7.73E-02	0.00E+00	3.19E-02
CHILD	4.98E-03	3.55E-02	3.52E-02	3.41E-02	3.41E-02	5.13E-02	0.00E+00	3.55E-02
INFANT	2.29E-05	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	0.00E+00	1.51E-02

Quarter - Limit		Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 4	- Admin. Any Organ	ADULT	GILLI	1.05E-01	3.75E+00	2.81E+00
Qtr 4	- Admin. Total Body	ADULT	TBODY	4.20E-02	1.13E+00	3.73E+00
Qtr 4	- T.Spc. Any Organ	ADULT	GILLI	1.05E-01	5.00E+00	2.11E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	3.86E+01
CR-51	4.49E-02
MN-54	5.62E-02
FE-55	1.58E-02
CO-58	6.37E+00
CO-60	6.05E-01
SR-89	7.08E-03
SR-90	1.45E-02
ZR-95	2.24E-03
NB-95	4.28E+01
TE-125M	1.15E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 LIQUID DOSE SUMMARY

Report for: 2006
 Unit One

Qtr 4 - T.Spc. Total Body ADULT TBODY 4.20E-02 1.50E+00 2.80E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.70E+01
CR-51	4.49E-04
MN-54	8.79E-03
FE-55	1.62E-02
CO-58	1.77E+00
CO-60	1.78E-01
SR-89	3.18E-03
SR-90	2.91E-02
ZR-95	1.20E-06
NB-95	9.52E-03
TE-125M	9.68E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit One

							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) =====							ANNUAL 2006 =====	
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	6.97E-03	1.89E-01	1.80E-01	1.90E-01	1.80E-01	3.04E-01	0.00E+00	1.87E-01
TEEN	7.48E-03	1.44E-01	1.35E-01	1.38E-01	1.36E-01	2.23E-01	0.00E+00	1.40E-01
CHILD	9.47E-03	1.58E-01	1.51E-01	1.53E-01	1.51E-01	1.81E-01	0.00E+00	1.54E-01
INFANT	1.01E-05	6.65E-02	6.65E-02	6.65E-02	6.65E-02	6.65E-02	0.00E+00	6.65E-02

=== SITE DOSE LIMIT ANALYSIS =====							ANNUAL 2006 =====	
Annual - Limit		Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit		
2006	- Admin. Any Organ	ADULT	GILLI	3.04E-01	7.50E+00	4.05E+00		
2006	- Admin. Total Body	ADULT	TBODY	1.87E-01	2.25E+00	8.30E+00		
2006	- T.Spc. Any Organ	ADULT	GILLI	3.04E-01	1.00E+01	3.04E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.05E-01
FE-59	1.89E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.31E-03
NB-95	2.95E+01
MO-99	3.63E-04
RU-103	4.19E-03
AG-110M	8.77E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 LIQUID DOSE SUMMARY

Report for: 2006
 Unit One

2006 - T.Spc. Total Body ADULT TBODY 1.87E-01 3.00E+00 6.22E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.62E+01
CR-51	7.52E-04
MN-54	3.09E-02
FE-59	3.53E-02
CO-58	5.72E-01
CO-60	6.40E-01
ZR-95	8.01E-07
NB-95	4.24E-03
MO-99	4.85E-05
RU-103	2.51E-05
AG-110M	2.08E-06
TE-125M	1.30E-01
TE-132	5.38E-02
I-132	3.62E-04
CS-137	2.35E+00
LA-140	6.93E-07

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 1 - Admin. Any Organ	INFANT	THYROID	5.26E-03	5.63E+00	9.36E-02
Qtr 1 - Admin. Total Body	CHILD	TBODY	7.09E-05	5.25E+00	1.35E-03
Qtr 1 - T.Spc. Any Organ	INFANT	THYROID	5.26E-03	7.50E+00	7.02E-02

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.89E-01
CR-51	7.79E-05
I-131	9.62E+01
I-133	2.84E+00

Qtr 1 - T.Spc. Total Body	CHILD	TBODY	7.09E-05	7.50E+00	9.45E-04
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.44E+01
CR-51	5.95E-03
I-131	5.39E+00
I-133	2.22E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 1 - Admin. Gamma	2.74E-05	3.75E+00	7.31E-04
Qtr 1 - Admin. Beta	2.00E-05	7.50E+00	2.67E-04
Qtr 1 - T.Spc. Gamma	2.74E-05	5.00E+00	5.48E-04

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	5.00E+00
KR-85	1.14E-01
KR-85M	2.91E-04
XE-135	1.35E-01
XE-133M	4.15E-03
KR-88	7.29E-03
XE-131M	2.74E-02
XE-133	9.47E+01

Qtr 1 - T.Spc. Beta	2.00E-05	1.00E+01	2.00E-04
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	5.94E-01
KR-85	4.36E+00
KR-85M	1.57E-04
XE-135	5.82E-02
XE-133M	6.32E-03
KR-88	4.74E-04
XE-131M	6.57E-02
XE-133	9.49E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 2 - Admin. Any Organ	INFANT	THYROID	3.46E-03	5.63E+00	6.16E-02
Qtr 2 - Admin. Total Body	CHILD	TBODY	2.46E-05	5.25E+00	4.68E-04
Qtr 2 - T.Spc. Any Organ	INFANT	THYROID	3.46E-03	7.50E+00	4.62E-02

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	4.93E-01
I-131	9.58E+01
I-133	3.72E+00

Qtr 2 - T.Spc. Total Body	CHILD	TBODY	2.46E-05	7.50E+00	3.28E-04
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.93E+01
I-131	1.02E+01
I-133	5.52E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
-----	-----	-----	-----
Qtr 2 - Admin. Gamma	3.10E-05	3.75E+00	8.26E-04
Qtr 2 - Admin. Beta	2.19E-05	7.50E+00	2.92E-04
Qtr 2 - T.Spc. Gamma	3.10E-05	5.00E+00	6.19E-04

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	8.80E+00
KR-85	1.24E-01
KR-85M	1.74E-01
XE-135	1.74E-01
XE-133M	2.49E-01
XE-131M	5.48E-02
XE-133	9.04E+01

Qtr 2 - T.Spc. Beta	2.19E-05	1.00E+01	2.19E-04
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	1.08E+00
KR-85	4.90E+00
KR-85M	9.70E-02
XE-135	7.72E-02
XE-133M	3.91E-01
XE-131M	1.35E-01
XE-133	9.33E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 3 - Admin. Any Organ	INFANT	THYROID	5.87E-02	5.63E+00	1.04E+00
Qtr 3 - Admin. Total Body	CHILD	TBODY	1.57E-03	5.25E+00	2.99E-02
Qtr 3 - T.Spc. Any Organ	INFANT	THYROID	5.87E-02	7.50E+00	7.83E-01

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	2.01E+00
CO-58	7.74E-05
CO-60	9.36E-03
I-131	9.75E+01
I-132	8.73E-03
I-133	4.31E-01

Qtr 3 - T.Spc. Total Body	CHILD	TBODY	1.57E-03	7.50E+00	2.09E-02
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.68E+01
CO-58	5.11E-03
CO-60	3.71E-01
I-131	2.76E+00
I-132	2.24E-02
I-133	1.70E-02

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Report for: 2006
Unit One

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 3 - Admin. Gamma	2.55E-04	3.75E+00	6.81E-03
Qtr 3 - Admin. Beta	1.74E-04	7.50E+00	2.33E-03
Qtr 3 - T.Spc. Gamma	2.55E-04	5.00E+00	5.11E-03

Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	1.37E+00
KR-85	1.88E-03
KR-85M	4.66E-03
XE-135	9.80E+00
XE-133M	7.26E-02
XE-131M	1.03E-01
XE-133	8.86E+01

Qtr 3 - T.Spc. Beta	1.74E-04	1.00E+01	1.74E-03
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	1.73E-01
KR-85	7.65E-02
KR-85M	2.68E-03
XE-135	4.52E+00
XE-133M	1.18E-01
XE-131M	2.65E-01
XE-133	9.48E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 4 - Admin. Any Organ	INFANT	THYROID	4.46E-03	5.63E+00	7.93E-02
Qtr 4 - Admin. Total Body	CHILD	TBODY	1.10E-03	5.25E+00	2.09E-02
Qtr 4 - T.Spc. Any Organ	INFANT	THYROID	4.46E-03	7.50E+00	5.95E-02

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	1.91E+01
CO-58	1.76E-04
I-131	8.06E+01
I-133	3.09E-01

Qtr 4 - T.Spc. Total Body	CHILD	TBODY	1.10E-03	7.50E+00	1.46E-02
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.97E+01
CO-58	1.26E-03
I-131	2.48E-01
I-133	1.32E-03

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GASEOUS DOSE SUMMARY

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Unit One

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 4 - Admin. Gamma	8.50E-06	3.75E+00	2.27E-04
Qtr 4 - Admin. Beta	5.91E-06	7.50E+00	7.88E-05
Qtr 4 - T.Spc. Gamma	8.50E-06	5.00E+00	1.70E-04

Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	8.80E+00
KR-85	8.30E-02
XE-135	8.83E-01
XE-131M	1.84E-01
XE-133	9.01E+01

Qtr 4 - T.Spc. Beta	5.91E-06	1.00E+01	5.91E-05
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	1.10E+00
KR-85	3.33E+00
XE-135	4.00E-01
XE-131M	4.63E-01
XE-133	9.47E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit One

=== I&P DOSE LIMIT ANALYSIS ===== ANNUAL 2006 =====

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2006 - Admin. Any Organ	INFANT	THYROID	7.19E-02	1.13E+01	6.39E-01
2006 - Admin. Total Body	CHILD	TBODY	2.76E-03	1.05E+01	2.63E-02
2006 - T.Spc. Any Organ	INFANT	THYROID	7.19E-02	1.50E+01	4.79E-01

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	2.92E+00
CR-51	5.71E-06
CO-58	7.41E-05
CO-60	7.64E-03
I-131	9.63E+01
I-132	7.13E-03
I-133	7.58E-01

2006 - T.Spc. Total Body	CHILD	TBODY	2.76E-03	1.50E+01	1.84E-02
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.79E+01
CR-51	1.53E-04
CO-58	3.40E-03
CO-60	2.11E-01
I-131	1.89E+00
I-132	1.27E-02
I-133	2.08E-02

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GASEOUS DOSE SUMMARY

Report for: 2006
Unit One

=== NG DOSE LIMIT ANALYSIS ===== ANNUAL 2006 =====

Annual - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
2006 - Admin. Gamma	3.22E-04	7.50E+00	4.30E-03
2006 - Admin. Beta	2.22E-04	1.50E+01	1.48E-03
2006 - T.Spc. Gamma	3.22E-04	1.00E+01	3.22E-03

Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	2.59E+00
KR-85	2.54E-02
KR-85M	2.05E-02
XE-135	7.82E+00
XE-133M	8.18E-02
KR-88	6.21E-04
XE-131M	9.44E-02
XE-133	8.94E+01

2006 - T.Spc. Beta	2.22E-04	2.00E+01	1.11E-03
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	3.25E-01
KR-85	1.02E+00
KR-85M	1.17E-02
XE-135	3.57E+00
XE-133M	1.32E-01
KR-88	4.26E-05
XE-131M	2.39E-01
XE-133	9.47E+01

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Report for: 2006
Unit One

=== MAXIMUM DOSE ANALYSIS ===== ANNUAL 2006 =====

Dose Type	Age Group	Organ	Dose (mrem)
Any Organ	ADULT	GILLI	3.05E-01

Liquid Receptor: 0 Liquid Receptor
 Gaseous Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Liquid Dose: 3.04E-01 % of Total: 9.95E+01

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.05E-01
FE-59	1.89E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.31E-03
NB-95	2.95E+01
MO-99	3.63E-04
RU-103	4.19E-03
AG-110M	8.77E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

Gaseous Dose: 1.66E-03 % of Total: 5.43E-01

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.90E+01
CR-51	1.38E-03
CO-58	1.26E-02
CO-60	3.98E-01
I-131	5.38E-01
I-132	1.86E-02
I-133	3.06E-02

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Report for: 2006
Unit One

=== MAXIMUM DOSE ANALYSIS ===== ANNUAL 2006 =====

Dose Type	Age Group	Organ	Dose (mrem)
Total Body	ADULT	TBODY	1.88E-01

Liquid Receptor: 0 Liquid Receptor
Gaseous Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA

Liquid Dose: 1.87E-01 % of Total: 9.93E+01

Critical Pathway: Fresh Water Fish - Sport (FFSP)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.62E+01
CR-51	7.52E-04
MN-54	3.09E-02
FE-59	3.53E-02
CO-58	5.72E-01
CO-60	6.40E-01
ZR-95	8.01E-07
NB-95	4.24E-03
MO-99	4.85E-05
RU-103	2.51E-05
AG-110M	2.08E-06
TE-125M	1.30E-01
TE-132	5.38E-02
I-132	3.62E-04
CS-137	2.35E+00
LA-140	6.93E-07

Gaseous Dose: 1.66E-03 % of Total: 8.85E-01

Critical Pathway: Vegetation (VEG)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.85E+01
CR-51	2.45E-04
CO-58	4.23E-03
CO-60	3.38E-01
I-131	1.13E+00
I-132	1.98E-02
I-133	1.31E-02

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LIQUID DOSE SUMMARY

Report for: 2006
Unit Two

							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===							QUARTER 1	
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	0.00E+00	4.59E-02	4.56E-02	4.56E-02	4.56E-02	5.15E-02	0.00E+00	4.63E-02
TEEN	0.00E+00	3.45E-02	3.42E-02	3.42E-02	3.42E-02	3.82E-02	0.00E+00	3.49E-02
CHILD	0.00E+00	3.83E-02	3.81E-02	3.81E-02	3.81E-02	3.95E-02	0.00E+00	3.88E-02
INFANT	0.00E+00	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	0.00E+00	1.69E-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	5.15E-02	3.75E+00	1.37E+00		
Qtr 1 - Admin. Total Body	ADULT	TBODY	4.63E-02	1.13E+00	4.11E+00		
Qtr 1 - T.Spc. Any Organ	ADULT	GILLI	5.15E-02	5.00E+00	1.03E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.86E+01
CO-58	8.65E+00
CO-60	2.74E+00

Qtr 1 - T.Spc. Total Body	ADULT	TBODY	4.63E-02	1.50E+00	3.08E+00
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Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.86E+01
CO-58	1.06E+00
CO-60	3.59E-01

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LIQUID DOSE SUMMARY

Report for: 2006
Unit Two

Table with 9 columns: Agegrp, Bone, Liver, Thyroid, Kidney, Lung, GI-LLI, Skin, TB. Rows include ADULT, TEEN, CHILD, INFANT with corresponding dose values in mrem.

Table for SITE DOSE LIMIT ANALYSIS with 6 columns: Quarter - Limit, Age Group, Organ, Dose (mrem), Limit (mrem), Max % of Limit. Rows include Admin. Any Organ, Admin. Total Body, and T.Spc. Any Organ.

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Table with 2 columns: Nuclide, Percentage. Lists nuclides H-3, MN-54, FE-55, CO-58, CO-60, SR-89, SR-90, CS-137 with their respective percentages.

Summary row for T.Spc. Total Body: ADULT TBODY 5.03E-02 1.50E+00 3.35E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Table with 2 columns: Nuclide, Percentage. Lists nuclides H-3, MN-54, FE-55, CO-58, CO-60, SR-89, SR-90, CS-137 with their respective percentages.

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LIQUID DOSE SUMMARY

Report for: 2006
Unit Two

							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) =====							QUARTER 3 =====	
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	2.44E-03	3.86E-02	3.77E-02	3.82E-02	3.78E-02	6.44E-02	0.00E+00	3.85E-02
TEEN	2.30E-03	2.92E-02	2.83E-02	2.88E-02	2.84E-02	4.71E-02	0.00E+00	2.89E-02
CHILD	2.65E-03	3.23E-02	3.16E-02	3.19E-02	3.16E-02	3.81E-02	0.00E+00	3.21E-02
INFANT	3.66E-05	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	0.00E+00	1.39E-02

=== 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	6.44E-02	3.75E+00	1.72E+00	
Qtr 3 - Admin. Total Body	ADULT	TBODY	3.85E-02	1.13E+00	3.42E+00	
Qtr 3 - T.Spc. Any Organ	ADULT	GILLI	6.44E-02	5.00E+00	1.29E+00	

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.85E+01
CR-51	1.70E-01
MN-54	2.64E-01
FE-55	7.43E-02
FE-59	3.00E-01
CO-58	2.05E+00
CO-60	2.84E+00
SR-89	3.32E-02
SR-90	6.81E-02
ZR-95	2.94E-03
NB-95	3.28E+01
MO-99	5.79E-04
RU-103	6.67E-03
AG-110M	1.40E-03
TE-132	2.66E+00
I-132	1.91E-04
CS-137	1.46E-02
LA-140	1.89E-01

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 LIQUID DOSE SUMMARY

Report for: 2006
 Unit Two

Qtr 3 - T.Spc. Total Body ADULT TBODY 3.85E-02 1.50E+00 2.56E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.79E+01
CR-51	1.14E-03
MN-54	2.75E-02
FE-55	5.06E-02
FE-59	5.78E-02
CO-58	3.80E-01
CO-60	5.57E-01
SR-89	9.94E-03
SR-90	9.11E-02
ZR-95	1.05E-06
NB-95	4.87E-03
MO-99	7.95E-05
RU-103	4.12E-05
AG-110M	3.40E-06
TE-132	8.82E-02
I-132	5.95E-04
CS-137	8.28E-01
LA-140	1.14E-06

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Report for: 2006
Unit Two

							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ===							QUARTER 4	
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	3.75E-03	4.23E-02	4.17E-02	5.31E-02	4.08E-02	1.05E-01	0.00E+00	4.20E-02
TEEN	3.96E-03	3.22E-02	3.15E-02	3.06E-02	3.06E-02	7.73E-02	0.00E+00	3.19E-02
CHILD	4.98E-03	3.55E-02	3.52E-02	3.41E-02	3.41E-02	5.13E-02	0.00E+00	3.55E-02
INFANT	2.29E-05	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	0.00E+00	1.51E-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	1.05E-01	3.75E+00	2.81E+00		
Qtr 4 - Admin. Total Body	ADULT	TBODY	4.20E-02	1.13E+00	3.73E+00		
Qtr 4 - T.Spc. Any Organ	ADULT	GILLI	1.05E-01	5.00E+00	2.11E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	3.86E+01
CR-51	4.49E-02
MN-54	5.62E-02
FE-55	1.58E-02
CO-58	6.37E+00
CO-60	6.05E-01
SR-89	7.08E-03
SR-90	1.45E-02
ZR-95	2.24E-03
NB-95	4.28E+01
TE-125M	1.15E+01

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 LIQUID DOSE SUMMARY

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Qtr 4 - T.Spc. Total Body ADULT TBODY 4.20E-02 1.50E+00 2.80E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.70E+01
CR-51	4.49E-04
MN-54	8.79E-03
FE-55	1.62E-02
CO-58	1.77E+00
CO-60	1.78E-01
SR-89	3.18E-03
SR-90	2.91E-02
ZR-95	1.20E-06
NB-95	9.52E-03
TE-125M	9.68E-01

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LIQUID DOSE SUMMARY

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							Liquid Receptor	
=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) =====							ANNUAL 2006 =====	
Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	6.97E-03	1.89E-01	1.80E-01	1.90E-01	1.80E-01	3.04E-01	0.00E+00	1.87E-01
TEEN	7.48E-03	1.44E-01	1.35E-01	1.38E-01	1.36E-01	2.23E-01	0.00E+00	1.40E-01
CHILD	9.47E-03	1.58E-01	1.51E-01	1.53E-01	1.51E-01	1.81E-01	0.00E+00	1.54E-01
INFANT	1.01E-05	6.65E-02	6.65E-02	6.65E-02	6.65E-02	6.65E-02	0.00E+00	6.65E-02

=== SITE DOSE LIMIT ANALYSIS =====							ANNUAL 2006 =====	
Annual - Limit		Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit		
2006	- Admin. Any Organ	ADULT	GILLI	3.04E-01	7.50E+00	4.05E+00		
2006	- Admin. Total Body	ADULT	TBODY	1.87E-01	2.25E+00	8.30E+00		
2006	- T.Spc. Any Organ	ADULT	GILLI	3.04E-01	1.00E+01	3.04E+00		

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.05E-01
FE-59	1.89E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.31E-03
NB-95	2.95E+01
MO-99	3.63E-04
RU-103	4.19E-03
AG-110M	8.77E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 LIQUID DOSE SUMMARY

Report for: 2006
 Unit Two

2006 - T.Spc. Total Body ADULT TBODY 1.87E-01 3.00E+00 6.22E+00

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
-----	-----
H-3	9.62E+01
CR-51	7.52E-04
MN-54	3.09E-02
FE-59	3.53E-02
CO-58	5.72E-01
CO-60	6.40E-01
ZR-95	8.01E-07
NB-95	4.24E-03
MO-99	4.85E-05
RU-103	2.51E-05
AG-110M	2.08E-06
TE-125M	1.30E-01
TE-132	5.38E-02
I-132	3.62E-04
CS-137	2.35E+00
LA-140	6.93E-07

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Report for: 2006
Unit Two

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 1 - Admin. Any Organ	INFANT	THYROID	5.26E-03	5.63E+00	9.36E-02
Qtr 1 - Admin. Total Body	CHILD	TBODY	7.09E-05	5.25E+00	1.35E-03
Qtr 1 - T.Spc. Any Organ	INFANT	THYROID	5.26E-03	7.50E+00	7.02E-02
Receptor: 5 Composite Crit. Receptor - IP					
Distance: 0.00 (meters) Compass Point: NA					

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.89E-01
CR-51	7.79E-05
I-131	9.62E+01
I-133	2.84E+00

Qtr 1 - T.Spc. Total Body	CHILD	TBODY	7.09E-05	7.50E+00	9.45E-04
Receptor: 5 Composite Crit. Receptor - IP					
Distance: 0.00 (meters) Compass Point: NA					

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.44E+01
CR-51	5.95E-03
I-131	5.39E+00
I-133	2.22E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Report for: 2006
Unit Two

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
Qtr 1 - Admin. Gamma	2.74E-05	3.75E+00	7.31E-04
Qtr 1 - Admin. Beta	2.00E-05	7.50E+00	2.67E-04
Qtr 1 - T.Spc. Gamma	2.74E-05	5.00E+00	5.48E-04

Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	5.00E+00
KR-85	1.14E-01
KR-85M	2.91E-04
XE-135	1.35E-01
XE-133M	4.15E-03
KR-88	7.29E-03
XE-131M	2.74E-02
XE-133	9.47E+01

Qtr 1 - T.Spc. Beta	2.00E-05	1.00E+01	2.00E-04
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Receptor: 4 Composite Crit. Receptor - NG
Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	5.94E-01
KR-85	4.36E+00
KR-85M	1.57E-04
XE-135	5.82E-02
XE-133M	6.32E-03
KR-88	4.74E-04
XE-131M	6.57E-02
XE-133	9.49E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Report for: 2006
Unit Two

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 2 - Admin. Any Organ	INFANT	THYROID	3.46E-03	5.63E+00	6.16E-02
Qtr 2 - Admin. Total Body	CHILD	TBODY	2.46E-05	5.25E+00	4.68E-04
Qtr 2 - T.Spc. Any Organ	INFANT	THYROID	3.46E-03	7.50E+00	4.62E-02

Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	4.93E-01
I-131	9.58E+01
I-133	3.72E+00

Qtr 2 - T.Spc. Total Body	CHILD	TBODY	2.46E-05	7.50E+00	3.28E-04
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Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	8.93E+01
I-131	1.02E+01
I-133	5.52E-01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
-----	-----	-----	-----
Qtr 2 - Admin. Gamma	3.10E-05	3.75E+00	8.26E-04
Qtr 2 - Admin. Beta	2.19E-05	7.50E+00	2.92E-04
Qtr 2 - T.Spc. Gamma	3.10E-05	5.00E+00	6.19E-04

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	8.80E+00
KR-85	1.24E-01
KR-85M	1.74E-01
XE-135	1.74E-01
XE-133M	2.49E-01
XE-131M	5.48E-02
XE-133	9.04E+01

Qtr 2 - T.Spc. Beta	2.19E-05	1.00E+01	2.19E-04
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	1.08E+00
KR-85	4.90E+00
KR-85M	9.70E-02
XE-135	7.72E-02
XE-133M	3.91E-01
XE-131M	1.35E-01
XE-133	9.33E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 3 - Admin. Any Organ	INFANT	THYROID	5.87E-02	5.63E+00	1.04E+00
Qtr 3 - Admin. Total Body	CHILD	TBODY	1.57E-03	5.25E+00	2.99E-02
Qtr 3 - T.Spc. Any Organ	INFANT	THYROID	5.87E-02	7.50E+00	7.83E-01

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	2.01E+00
CO-58	7.74E-05
CO-60	9.36E-03
I-131	9.75E+01
I-132	8.73E-03
I-133	4.31E-01

Qtr 3 - T.Spc. Total Body	CHILD	TBODY	1.57E-03	7.50E+00	2.09E-02
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.68E+01
CO-58	5.11E-03
CO-60	3.71E-01
I-131	2.76E+00
I-132	2.24E-02
I-133	1.70E-02

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
-----	-----	-----	-----
Qtr 3 - Admin. Gamma	2.55E-04	3.75E+00	6.81E-03
Qtr 3 - Admin. Beta	1.74E-04	7.50E+00	2.33E-03
Qtr 3 - T.Spc. Gamma	2.55E-04	5.00E+00	5.11E-03

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	1.37E+00
KR-85	1.88E-03
KR-85M	4.66E-03
XE-135	9.80E+00
XE-133M	7.26E-02
XE-131M	1.03E-01
XE-133	8.86E+01

Qtr 3 - T.Spc. Beta	1.74E-04	1.00E+01	1.74E-03
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	1.73E-01
KR-85	7.65E-02
KR-85M	2.68E-03
XE-135	4.52E+00
XE-133M	1.18E-01
XE-131M	2.65E-01
XE-133	9.48E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

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

Quarter - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Qtr 4 - Admin. Any Organ	INFANT	THYROID	4.46E-03	5.63E+00	7.93E-02
Qtr 4 - Admin. Total Body	CHILD	TBODY	1.10E-03	5.25E+00	2.09E-02

Qtr 4 - T.Spc. Any Organ INFANT THYROID 4.46E-03 7.50E+00 5.95E-02
 Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	1.91E+01
CO-58	1.76E-04
I-131	8.06E+01
I-133	3.09E-01

Qtr 4 - T.Spc. Total Body CHILD TBODY 1.10E-03 7.50E+00 1.46E-02
 Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.97E+01
CO-58	1.26E-03
I-131	2.48E-01
I-133	1.32E-03

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

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

Quarter - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
-----	-----	-----	-----
Qtr 4 - Admin. Gamma	8.50E-06	3.75E+00	2.27E-04
Qtr 4 - Admin. Beta	5.91E-06	7.50E+00	7.88E-05
Qtr 4 - T.Spc. Gamma	8.50E-06	5.00E+00	1.70E-04

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	8.80E+00
KR-85	8.30E-02
XE-135	8.83E-01
XE-131M	1.84E-01
XE-133	9.01E+01

Qtr 4 - T.Spc. Beta	5.91E-06	1.00E+01	5.91E-05
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
-----	-----
AR-41	1.10E+00
KR-85	3.33E+00
XE-135	4.00E-01
XE-131M	4.63E-01
XE-133	9.47E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

=== I&P DOSE LIMIT ANALYSIS ===== ANNUAL 2006 =====

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2006 - Admin. Any Organ	INFANT	THYROID	7.19E-02	1.13E+01	6.39E-01
2006 - Admin. Total Body	CHILD	TBODY	2.76E-03	1.05E+01	2.63E-02
2006 - T.Spc. Any Organ	INFANT	THYROID	7.19E-02	1.50E+01	4.79E-01

Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Grs/Goat/Milk (GMILK)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	2.92E+00
CR-51	5.71E-06
CO-58	7.41E-05
CO-60	7.64E-03
I-131	9.63E+01
I-132	7.13E-03
I-133	7.58E-01

2006 - T.Spc. Total Body	CHILD	TBODY	2.76E-03	1.50E+01	1.84E-02
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Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.79E+01
CR-51	1.53E-04
CO-58	3.40E-03
CO-60	2.11E-01
I-131	1.89E+00
I-132	1.27E-02
I-133	2.08E-02

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

 GASEOUS DOSE SUMMARY

Report for: 2006
 Unit Two

=== NG DOSE LIMIT ANALYSIS ===== ANNUAL 2006 =====

Annual - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
2006 - Admin. Gamma	3.22E-04	7.50E+00	4.30E-03
2006 - Admin. Beta	2.22E-04	1.50E+01	1.48E-03
2006 - T.Spc. Gamma	3.22E-04	1.00E+01	3.22E-03

Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	2.59E+00
KR-85	2.54E-02
KR-85M	2.05E-02
XE-135	7.82E+00
XE-133M	8.18E-02
KR-88	6.21E-04
XE-131M	9.44E-02
XE-133	8.94E+01

2006 - T.Spc. Beta	2.22E-04	2.00E+01	1.11E-03
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Receptor: 4 Composite Crit. Receptor - NG
 Distance: 0.00 (meters) Compass Point: NA

Nuclide	Percentage
AR-41	3.25E-01
KR-85	1.02E+00
KR-85M	1.17E-02
XE-135	3.57E+00
XE-133M	1.32E-01
KR-88	4.26E-05
XE-131M	2.39E-01
XE-133	9.47E+01

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

Report for: 2006
Unit Two

=== MAXIMUM DOSE ANALYSIS ===== ANNUAL 2006 =====

Dose Type	Age Group	Organ	Dose (mrem)
Any Organ	ADULT	GILLI	3.05E-01

Liquid Receptor: 0 Liquid Receptor
Gaseous Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA

Liquid Dose: 3.04E-01 % of Total: 9.95E+01

Critical Pathway: Fresh Water Fish - Sport (FFSP)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.92E+01
CR-51	1.16E-01
MN-54	3.05E-01
FE-59	1.89E-01
CO-58	3.18E+00
CO-60	3.35E+00
ZR-95	2.31E-03
NB-95	2.95E+01
MO-99	3.63E-04
RU-103	4.19E-03
AG-110M	8.77E-04
TE-125M	2.38E+00
TE-132	1.67E+00
I-132	1.20E-04
CS-137	4.26E-02
LA-140	1.18E-01

Gaseous Dose: 1.66E-03 % of Total: 5.43E-01

Critical Pathway: Vegetation (VEG)

Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.90E+01
CR-51	1.38E-03
CO-58	1.26E-02
CO-60	3.98E-01
I-131	5.38E-01
I-132	1.86E-02
I-133	3.06E-02

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

Report for: 2006
Unit Two

=== MAXIMUM DOSE ANALYSIS ===== ANNUAL 2006 =====

Dose Type	Age Group	Organ	Dose (mrem)
Total Body	ADULT	TBODY	1.88E-01

Liquid Receptor: 0 Liquid Receptor
 Gaseous Receptor: 5 Composite Crit. Receptor - IP
 Distance: 0.00 (meters) Compass Point: NA

Liquid Dose: 1.87E-01 % of Total: 9.93E+01

Critical Pathway: Fresh Water Fish - Sport (FFSP)
 Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.62E+01
CR-51	7.52E-04
MN-54	3.09E-02
FE-59	3.53E-02
CO-58	5.72E-01
CO-60	6.40E-01
ZR-95	8.01E-07
NB-95	4.24E-03
MO-99	4.85E-05
RU-103	2.51E-05
AG-110M	2.08E-06
TE-125M	1.30E-01
TE-132	5.38E-02
I-132	3.62E-04
CS-137	2.35E+00
LA-140	6.93E-07

Gaseous Dose: 1.66E-03 % of Total: 8.85E-01

Critical Pathway: Vegetation (VEG)
 Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.85E+01
CR-51	2.45E-04
CO-58	4.23E-03
CO-60	3.38E-01
I-131	1.13E+00
I-132	1.98E-02
I-133	1.31E-02

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January 2006 THROUGH December 2006

ADDENDUM

2006 Annual Radioactive Effluent Release Report

SOLID RADIOACTIVE WASTE FOR BURIAL 1ST QUARTER 2005

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	CURIES* PER SHIPMENT
1/18/2005	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS B, NONE	EXCLUSIVE-USE	BARNWELL, SC.	3.41E+00	8.98E-02
2/01/2005	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	KINGSTON, TN.	3.63E+01	1.40E-06
2/24/2005	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	3.63E+01	1.57E-05
2/24/2005	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	3.63E+01	1.13E-04
3/31/2005	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	3.63E+01	3.70E-04
Quarterly Totals		Number of Shipments:	5	1.49E+02	9.03E-02
* Calculated using measured ratios				CUBIC M	CURIES