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Byron Station
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Nuclear

10 CFR 50.36a

April 26, 2001

LTR: BYRON 2001-0060
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United States Nuclear Regulatory Commission
Attention: 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: 2000 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 50.36a, "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 2000 through December 2000.

If you have any questions regarding this information, please contact P. Reister, Regulatory Assurance Manager, at (815) 234-5441, extension 2280.

Respectfully,



Richard P. Lopriore
Site Vice President
Byron Nuclear Generating Station

RPL/DAT/rf/dpk

Attachment

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Byron Station
Director of Nuclear Reactor Regulations – U.S. Nuclear Regulatory Commission
NRR Project Manager – Byron Station (w/o enclosure)
Illinois Department of Nuclear Safety – Office of Nuclear Facility Safety
U.S. Environmental Protection Agency, Air and Radiation Division – Region V

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BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January, 2000 THROUGH December, 2000
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
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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.

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- 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 which 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 = 112
 - 2. Total time period for batch releases = 14,091 minutes
 - 3. Maximum time period for a batch release = 438 minutes
 - 4. Average time period for a batch release = 126 minutes
 - 5. Minimum time period for a batch release = 45 minutes
 - 6. Average stream flow during periods of release of effluent into a flowing stream = 214 m³/sec, based on information from the National Weather Service or Army Corps of Engineers for the Rock River.
 - b. Gaseous:
 - 1. Number of batch releases = 283
 - 2. Total time period for batch releases = 47,226 minutes
 - 3. Maximum time period for a batch release = 9,041 minutes
 - 4. Average time period for batch releases = 167 minutes
 - 5. Minimum time period for a batch release = 34 minutes
6. Abnormal Releases:
- a. Liquid - None
 - b. Gaseous – Unit 1 B Power Operated Atmospheric Release Valve Steam Leak Release Data is listed in Attachment B. Dose attributed to these releases is included in dose calculations.
 - c. Gaseous – Unit 2 C Power Operated Atmospheric Release Valve Steam Leak Release data is listed in Attachment C. Dose attributed to these releases is included in dose calculations.
 - d. Gaseous – Unit 1/2 Radioactive Waste Volume Reduction Effluent Pathway Ground is listed in Attachment D. Dose attributed to these releases is included in dose calculations.

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RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY, 2000 THROUGH DECEMBER, 2000

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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A. FISSION AND ACTIVATION GAS RELEASES

1. Total Release Activity:	Ci	1.44E-01	1.76E-01	3.19E-01	5.91E-01
2. Maximum Release Rate for Quarter:	uCi/sec	2.06E+00	1.77E+00	3.10E+00	1.23E+00
3. % of Tech. Spec. Limits *					
a. Whole Body (500 mrem/yr):	%	0.00	0.00	0.00	0.00
b. Skin (3000 mrem/yr):	%	0.00	0.00	0.00	0.00
4. % of 10CFR50 Limits					
a. Gamma Quarterly (5 mrad):	%	0.00	0.00	0.00	0.00
b. Beta Quarterly (10 mrad):	%	0.00	0.00	0.00	0.00
c. Gamma Annual (10 mrad):	%	0.00	0.00	0.00	0.00
d. Beta Annual (20 mrad):	%	0.00	0.00	0.00	0.00

B. IODINE RELEASES **

1. Total I-131 Activity:	Ci	<LLD	<LLD	<LLD	1.54E-06
2. Average I-131 Release Rate:	uCi/sec	0.00E+00	0.00E+00	0.00E+00	1.94E-07

C. PARTICULATE (>8 day half-life) RELEASES **

1. Total Particulate Activity:	Ci	<LLD	<LLD	9.91E-07	1.78E-06
2. Average Particulate Release Rate:	uCi/sec	0.00E+00	0.00E+00	1.25E-07	2.24E-07
3. Gross Alpha Activity for Quarter:	Ci	<LLD	<LLD	<LLD	<LLD

D. TRITIUM RELEASES **

1. Total Tritium Activity:	Ci	1.53E-01	1.73E-01	1.88E-01	3.31E-01
2. Average Tritium Release Rate:	uCi/sec	1.95E-02	2.20E-02	2.36E-02	4.16E-02

* % of Tech. Spec. limits is based on the maximum release rate for the period considered.

** Iodine, particulate, and tritium are expressed as a total limit. See Step E.

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RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY, 2000 THROUGH DECEMBER, 2000

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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E. TOTAL OF IODINE, PARTICULATE (>8 day half-life), AND TRITIUM RELEASES

1. Total Activity:	Ci	1.53E-01	1.73E-01	1.88E-01	3.31E-01
2. % of Tech. Spec. Limits					
a. Any Organ (1500 mrem/yr):	%	0.00	0.00	0.00	0.00
3. % of 10CFR50 Limit					
a. Quarterly Any Organ (7.5 mrem):	%	0.00	0.00	0.00	0.00
b. Annual Any Organ (15 mrem):	%	0.00	0.00	0.00	0.00

GASEOUS EFFLUENTS - VENT STACK RELEASES - BATCH MODE

F. FISSION AND ACTIVATION GAS RELEASES

Ar-41:	Ci	<LLD	3.85E-03	1.59E-02	2.25E-04
Kr-85:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m:	Ci	<LLD	<LLD	4.05E-04	5.49E-05
Kr-87:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88:	Ci	<LLD	<LLD	2.97E-04	<LLD
Xe-131m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133:	Ci	1.19E-01	6.98E-02	2.24E-01	6.62E-02
Xe-133m:	Ci	5.55E-04	1.83E-04	3.17E-03	6.58E-03
Xe-135:	Ci	4.43E-04	8.44E-05	2.43E-02	3.88E-03
Xe-138:	Ci	<LLD	<LLD	<LLD	<LLD

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GASEOUS EFFLUENTS - VENT STACK RELEASES - BATCH MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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G. IODINE RELEASES

I-131:

I-133:

I-135:

Ci	*	*	*	*
Ci	*	*	*	*
Ci	*	*	*	*

* Value reported as CONTINUOUS RELEASE MODE.

H. PARTICULATE (>8 day half-life) RELEASES

Sr-89:

Sr-90:

Ci	*	*	*	*
Ci	*	*	*	*

* Value reported as CONTINUOUS RELEASE MODE.

GASEOUS EFFLUENTS - VENT STACK RELEASES - CONTINUOUS MODE

I. FISSION AND ACTIVATION GAS RELEASES

Xe-133:

Ci	2.40E-02	1.02E-01	5.08E-02	5.14E-01
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GASEOUS EFFLUENTS - VENT STACK RELEASES - CONTINUOUS MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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J. IODINE RELEASES

I-131:	Ci	<LLD	<LLD	<LLD	1.54E-06
I-133:	Ci	4.60E-06	<LLD	<LLD	<LLD
I-135:	Ci	<LLD	<LLD	<LLD	<LLD

K. PARTICULATE (>8 day half-life) RELEASES

Sr-89:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90:	Ci	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	9.91E-07	1.52E-06
Co-60	Ci	<LLD	<LLD	<LLD	2.63E-07

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

L. FISSION AND ACTIVATION PRODUCT RELEASES

1. Total Activity Released:	Ci	5.19E-02	1.49E-02	4.38E-03	3.71E-02
2. Average Concentration Released For Quarter:	uCi/ml	1.55E-08	4.52E-09	1.28E-09	1.19E-08

3. % of 10CFR50 Limits

a. Quarterly Whole Body (1.5 mrem):	%	0.04	0.05	0.04	0.02
b. Quarterly Any Organ (5.0 mrem):	%	0.02	0.01	0.01	0.01
c. Annual Whole Body (3.0 mrem):	%	0.02	0.04	0.06	0.08
d. Annual Any Organ (10.0 mrem):	%	0.01	0.01	0.02	0.02

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LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (CONT.)

M. TRITIUM

1. Total Activity Released:
2. Average Concentration
Released For Quarter:
3. % of Tech Spec Limit
(1.00E-2 uCi/ml):

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Ci	2.87E+02	3.62E+02	3.33E+02	1.75E+02
uCi/ml	8.60E-05	1.10E-04	9.71E-05	5.60E-05
%	0.86	1.10	0.97	0.56

N. DISSOLVED NOBLE GASES

1. Total Activity Released:
2. Average Concentration
Released For Quarter:
3. % of Tech. Reqt. Manual Limit
(2.00E-4 uCi/ml):

Ci	1.33E-03	2.82E-04	1.28E-03	6.37E-03
uCi/ml	3.97E-10	8.54E-11	3.75E-10	2.04E-09
%	0.00	0.00	0.00	0.00

O. GROSS ALPHA

1. Total Activity Released:
2. Average Concentration
Released For Quarter:

Ci	<LLD	<LLD	<LLD	<LLD
uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**P. VOLUME OF WASTE
RELEASED PER UNIT:**

liters	7.61E+05	8.07E+05	1.58E+06	1.45E+06
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**Q. VOLUME OF DILUTION
WATER PER UNIT:**

liters	3.34E+09	3.30E+09	3.43E+09	3.13E+09
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LIQUID EFFLUENTS - CONTINUOUS MODE

R. LIQUID EFFLUENTS

Fe-55:
Sr-89:
Sr-90:

Ci	*	*	*	*
Ci	*	*	*	*
Ci	*	*	*	*

* Value reported as LIQUID EFFLUENTS - BATCH MODE

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LIQUID EFFLUENTS - BATCH MODE

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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S. LIQUID EFFLUENTS

Fe-55:	Ci	9.93E-04	4.50E-04	7.75E-04	4.03E-03
Sr-89:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90:	Ci	<LLD	<LLD	<LLD	<LLD
H-3:	Ci	2.87E+02	3.62E+02	3.33E+02	1.75E+02
Ar-41:	Ci	<LLD	<LLD	<LLD	<LLD
Cr-51:	Ci	1.21E-03	4.62E-04	<LLD	3.03E-05
Mn-54:	Ci	2.21E-05	<LLD	<LLD	1.48E-05
Fe-59:	Ci	<LLD	<LLD	<LLD	1.97E-05
Co-57:	Ci	4.29E-06	<LLD	4.88E-06	3.27E-05
Co-58:	Ci	1.22E-03	2.51E-04	1.42E-03	1.59E-02
Co-60:	Ci	6.00E-04	3.18E-04	7.21E-04	5.98E-04
Zn-65:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85:	Ci	1.26E-03	<LLD	<LLD	6.11E-03
Kr-85m:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87:	Ci	2.45E-05	<LLD	<LLD	<LLD
Kr-88:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-92:	Ci	7.74E-06	<LLD	<LLD	8.16E-06
Nb-95:	Ci	8.02E-06	<LLD	4.59E-06	3.52E-06
Zr-95:	Ci	<LLD	<LLD	<LLD	<LLD
Zr-97:	Ci	<LLD	<LLD	<LLD	<LLD
Mo-99:	Ci	<LLD	<LLD	<LLD	<LLD
Tc-99m:	Ci	<LLD	<LLD	<LLD	<LLD
Tc-104:	Ci	<LLD	<LLD	<LLD	<LLD
Ag-110m:	Ci	4.26E-05	2.04E-06	<LLD	4.94E-05
Sn-113:	Ci	<LLD	<LLD	<LLD	<LLD
Te-121m:	Ci	<LLD	<LLD	<LLD	<LLD
Te-123m:	Ci	2.49E-05	<LLD	<LLD	7.30E-04
Te-125m:	Ci	1.84E-02	1.62E-03	<LLD	1.14E-02
Sb-122:	Ci	<LLD	<LLD	<LLD	8.22E-06
Sb-124:	Ci	3.30E-03	6.62E-04	<LLD	1.91E-03
Sb-125:	Ci	2.70E-02	1.15E-02	2.23E-03	6.29E-03
Sb-126:	Ci	<LLD	<LLD	<LLD	7.52E-06

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LIQUID EFFLUENTS - BATCH MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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S. LIQUID EFFLUENTS (CONT.)

I-131:	Ci	<LLD	<LLD	<LLD	<LLD
I-132:	Ci	<LLD	<LLD	<LLD	5.77E-05
I-133:	Ci	<LLD	<LLD	<LLD	<LLD
I-135:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-131m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133:	Ci	4.45E-05	2.82E-04	1.24E-03	2.66E-04
Xe-133m:	Ci	<LLD	<LLD	1.28E-05	<LLD
Xe-135:	Ci	<LLD	<LLD	2.86E-05	<LLD
Xe-135m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138:	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134:	Ci	<LLD	<LLD	9.82E-06	<LLD
Cs-137:	Ci	<LLD	2.15E-06	<LLD	<LLD
Ba-140:	Ci	<LLD	<LLD	<LLD	<LLD
La-140:	Ci	<LLD	<LLD	<LLD	<LLD
Ce-141:	Ci	<LLD	<LLD	<LLD	<LLD
Ce-144:	Ci	<LLD	<LLD	<LLD	<LLD
Na-24	Ci	1.59E-05	<LLD	<LLD	<LLD
Sr-85	Ci	5.57E-06	<LLD	<LLD	<LLD
Cs-136	Ci	9.10E-06	<LLD	<LLD	<LLD
Te-132	Ci	1.11E-05	1.49E-05	<LLD	5.92E-05

T. 10CFR20 PUBLIC TEDE COMPLIANCE

1. % OF 10CFR20 TEDE LIMIT
(100 mrem/yr):

%	0.00	0.00	0.00	0.00
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GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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A. FISSION AND ACTIVATION GAS RELEASES

1. Total Release Activity:	Ci	1.15E-01	2.05E-01	2.39E-01	5.75E-01
2. Maximum Release Rate for Quarter:	uCi/sec	2.06E+00	1.77E+00	3.10E+00	1.06E+00

3. % of Tech. Spec. Limits:*

a. Whole Body (500 mrem/yr):

b. Skin (3000 mrem/yr):

%	0.00	0.00	0.00	0.00
%	0.00	0.00	0.00	0.00

4. % of 10CFR50 Limits

a. Gamma Quarterly (5 mrad):

b. Beta Quarterly (10 mrad):

c. Gamma Annual (10 mrad):

d. Beta Annual (20 mrad):

%	0.00	0.00	0.00	0.00
%	0.00	0.00	0.00	0.00
%	0.00	0.00	0.00	0.00
%	0.00	0.00	0.00	0.00

B. IODINE RELEASES **

1. Total I-131 Activity:	Ci	<LLD	<LLD	<LLD	<LLD
2. Average I-131 Release Rate:	uCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00

C. PARTICULATE (>8 day half-life) RELEASES **

1. Total Particulate Activity:	Ci	<LLD	<LLD	<LLD	2.45E-06
2. Average Particulate Release Rate:	uCi/sec	0.00E+00	0.00E+00	0.00E+00	3.08E-07
3. Gross Alpha Activity for Quarter:	Ci	<LLD	<LLD	<LLD	<LLD

D. TRITIUM RELEASES **

1. Total Tritium Activity:	Ci	3.85E-01	4.32E-01	1.05E+00	3.80E-01
2. Average Tritium Release Rate:	uCi/sec	4.90E-02	5.49E-02	1.32E-01	4.78E-02

* % of Tech. Spec. limits is based on the maximum release rate for the period considered.

** Iodine, particulate, and tritium are expressed as a total limit. See Step E.

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GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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E. TOTAL OF IODINE, PARTICULATE (>8 day half-life), AND TRITIUM RELEASES

1. Total Activity:	Ci	3.85E-01	4.32E-01	1.05E+00	3.80E-01
2. % of Tech. Spec. Limits					
a. Any Organ (1500 mrem/yr):	%	0.00	0.00	0.00	0.00
3. % of 10CFR50 Limit					
a. Quarterly Any Organ (7.5 mrem):	%	0.00	0.01	0.02	0.00
a. Annual Any Organ (15 mrem):	%	0.00	0.00	0.02	0.02

GASEOUS EFFLUENTS - VENT STACK RELEASES - BATCH MODE

F. FISSION AND ACTIVATION GAS RELEASES

Ar-41:	Ci	<LLD	1.92E-03	1.25E-02	5.60E-03
Kr-85:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m:	Ci	<LLD	<LLD	4.05E-04	5.49E-05
Kr-87:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88:	Ci	<LLD	<LLD	2.97E-04	<LLD
Xe-131m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133:	Ci	7.08E-02	2.78E-02	1.33E-01	6.74E-02
Xe-133m:	Ci	5.55E-04	1.83E-04	3.17E-03	1.35E-03
Xe-135:	Ci	1.62E-04	1.44E-03	1.28E-02	3.88E-03
Xe-138:	Ci	<LLD	<LLD	<LLD	<LLD

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GASEOUS EFFLUENTS - VENT STACK RELEASES - BATCH MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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G. IODINE RELEASES

I-131:	Ci	*	*	*	*
I-133:	Ci	*	*	*	*
I-135:	Ci	*	*	*	*

* Value reported as CONTINUOUS RELEASE MODE.

H. PARTICULATE (>8 day half-life) RELEASES

Sr-89:	Ci	*	*	*	*
Sr-90:	Ci	*	*	*	*

* Value reported as CONTINUOUS RELEASE MODE.

GASEOUS EFFLUENTS - VENT STACK RELEASES - CONTINUOUS MODE

I. FISSION AND ACTIVATION GAS RELEASES

Xe-133:	Ci	4.36E-02	1.74E-01	7.68E-02	4.97E-01
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GASEOUS EFFLUENTS - VENT STACK RELEASES - CONTINUOUS MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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J. IODINE RELEASES

I-131:	Ci	<LLD	<LLD	<LLD	<LLD
I-133:	Ci	<LLD	<LLD	1.39E-06	<LLD
I-135:	Ci	<LLD	<LLD	<LLD	<LLD

K. PARTICULATE (>8 day half-life) RELEASES

Sr-89:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90:	Ci	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	2.45E-06

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

L. FISSION AND ACTIVATION PRODUCT RELEASES

1. Total Activity Released:	Ci	5.19E-02	1.49E-02	4.38E-03	3.71E-02
2. Average Concentration Released For Quarter:	uCi/ml	1.55E-08	4.52E-09	1.28E-09	1.19E-08

3. % of 10CFR50 Limits

a. Quarterly Whole Body (1.5 mrem):	%	0.04	0.05	0.04	0.02
b. Quarterly Any Organ (5.0 mrem):	%	0.02	0.01	0.01	0.01
c. Annual Whole Body (3.0 mrem):	%	0.02	0.04	0.06	0.08
d. Annual Any Organ (10.0 mrem):	%	0.01	0.01	0.02	0.02

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LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (CONT.)

	UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
M. TRITIUM					
1. Total Activity Released:	Ci	2.87E+02	3.62E+02	3.33E+02	1.75E+02
2. Average Concentration Released For Quarter:	uCi/ml	8.60E-05	1.10E-04	9.71E-05	5.60E-05
3. % of Tech Spec Limit (1.00E-2 uCi/ml):	%	0.86	1.10	0.97	0.56
N. DISSOLVED NOBLE GASES					
1. Total Activity Released:	Ci	1.33E-03	2.82E-04	1.28E-03	6.37E-03
2. Average Concentration Released For Quarter:	uCi/ml	3.97E-10	8.54E-11	3.75E-10	2.04E-09
3. % of Tech. Reqt. Manual Limit (2.00E-4 uCi/ml):	%	0.00	0.00	0.00	0.00
O. GROSS ALPHA					
1. Total Activity Released:	Ci	<LLD	<LLD	<LLD	<LLD
2. Average Concentration Released For Quarter:	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00
P. VOLUME OF WASTE RELEASED PER UNIT:					
	liters	7.61E+05	8.07E+05	1.58E+06	1.45E+06
Q. VOLUME OF DILUTION WATER PER UNIT:					
	liters	3.34E+09	3.30E+09	3.43E+09	3.13E+09

LIQUID EFFLUENTS - CONTINUOUS MODE

R. LIQUID EFFLUENTS					
Fe-55:	Ci	*	*	*	*
Sr-89:	Ci	*	*	*	*
Sr-90:	Ci	*	*	*	*

* Value reported as LIQUID EFFLUENTS - BATCH MODE

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LIQUID EFFLUENTS - BATCH MODE

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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S. LIQUID EFFLUENTS

Fe-55:	Ci	9.93E-04	4.50E-04	7.75E-04	4.03E-03
Sr-89:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90:	Ci	<LLD	<LLD	<LLD	<LLD
H-3:	Ci	2.87E+02	3.62E+02	3.33E+02	1.75E+02
Ar-41:	Ci	<LLD	<LLD	<LLD	<LLD
Cr-51:	Ci	1.21E-03	4.62E-04	<LLD	3.03E-05
Mn-54:	Ci	2.21E-05	<LLD	<LLD	1.48E-05
Fe-59:	Ci	<LLD	<LLD	<LLD	1.97E-05
Co-57:	Ci	4.29E-06	<LLD	4.88E-06	3.27E-05
Co-58:	Ci	1.22E-03	2.51E-04	1.42E-03	1.59E-02
Co-60:	Ci	6.00E-04	3.18E-04	7.21E-04	5.98E-04
Zn-65:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85:	Ci	1.26E-03	<LLD	<LLD	6.11E-03
Kr-85m:	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87:	Ci	2.45E-05	<LLD	<LLD	<LLD
Kr-88:	Ci	<LLD	<LLD	<LLD	<LLD
Sr-92:	Ci	7.74E-06	<LLD	<LLD	8.16E-06
Nb-95:	Ci	8.02E-06	<LLD	4.59E-06	3.52E-06
Zr-95:	Ci	<LLD	<LLD	<LLD	<LLD
Zr-97:	Ci	<LLD	<LLD	<LLD	<LLD
Mo-99:	Ci	<LLD	<LLD	<LLD	<LLD
Tc-99m:	Ci	<LLD	<LLD	<LLD	<LLD
Tc-104:	Ci	<LLD	<LLD	<LLD	<LLD
Ag-110m:	Ci	4.26E-05	2.04E-06	<LLD	4.94E-05
Sn-113:	Ci	<LLD	<LLD	<LLD	<LLD
Te-121m:	Ci	<LLD	<LLD	<LLD	<LLD
Te-123m:	Ci	2.49E-05	<LLD	<LLD	7.30E-04
Te-125m:	Ci	1.84E-02	1.62E-03	<LLD	1.14E-02
Sb-122:	Ci	<LLD	<LLD	<LLD	8.22E-06
Sb-124:	Ci	3.30E-03	6.62E-04	<LLD	1.91E-03
Sb-125:	Ci	2.70E-02	1.15E-02	2.23E-03	6.29E-03
Sb-126:	Ci	<LLD	<LLD	<LLD	7.52E-06

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LIQUID EFFLUENTS - BATCH MODE (CONT.)

UNITS	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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S. LIQUID EFFLUENTS (CONT.)

I-131:	Ci	<LLD	<LLD	<LLD	<LLD
I-132:	Ci	<LLD	<LLD	<LLD	5.77E-05
I-133:	Ci	<LLD	<LLD	<LLD	<LLD
I-135:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-131m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133:	Ci	4.45E-05	2.82E-04	1.24E-03	2.66E-04
Xe-133m:	Ci	<LLD	<LLD	1.28E-05	<LLD
Xe-135:	Ci	<LLD	<LLD	2.86E-05	<LLD
Xe-135m:	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138:	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134:	Ci	<LLD	<LLD	9.82E-06	<LLD
Cs-137:	Ci	<LLD	2.15E-06	<LLD	<LLD
Ba-140:	Ci	<LLD	<LLD	<LLD	<LLD
La-140:	Ci	<LLD	<LLD	<LLD	<LLD
Ce-141:	Ci	<LLD	<LLD	<LLD	<LLD
Ce-144:	Ci	<LLD	<LLD	<LLD	<LLD
Na-24	Ci	1.59E-05	<LLD	<LLD	<LLD
Sr-85	Ci	5.57E-06	<LLD	<LLD	<LLD
Cs-136	Ci	9.10E-06	<LLD	<LLD	<LLD
Te-132	Ci	1.11E-05	1.49E-05	<LLD	5.92E-05

T. 10CFR20 PUBLIC TEDE COMPLIANCE

1. % OF 10CFR20 TEDE LIMIT:
(100 mrem/yr)

%	0.00	0.00	0.00	0.00
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BYRON NUCLEAR POWER STATION
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SOLID RADIOACTIVE WASTE FOR BURIAL 1ST QUARTER, 2000

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	Curies* Per Shipment
02/28/2000	DRY ACTIVE WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	7.25E+01	3.21E-01
03/01/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	1.36E+00
03/02/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.94E-01
03/07/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.01E-01
03/09/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.62E-01
03/10/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.68E-01
03/13/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.11E-01
03/14/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	4.52E-01
03/17/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	6.07E+00
Quarterly Totals		Number of Shipments:	9	6.56E+02	9.44E+00
				CUBIC M	CURIES

* Calculated using measured ratios

BYRON NUCLEAR POWER STATION
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SOLID RADIOACTIVE WASTE FOR BURIAL 2ND QUARTER, 2000

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	Curies* Per Shipment
04/04/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	6.68E-01
04/05/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	3.27E-01
04/05/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	6.09E+01	4.06E-01
04/06/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	4.56E-01
04/24/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	2.89E-01
04/24/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	3.54E-01
04/26/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	6.09E+01	2.41E-01
04/26/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	6.09E+01	6.86E-01
04/27/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	6.09E+01	1.02E-01
04/27/2000	MIXED BED ION-EXCHANGE MEDIA, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	4.84E+00	8.09E+00
				CUBIC M	CURIES

* Calculated using measured ratios

CONTINUED ...

BYRON NUCLEAR POWER STATION
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SOLID RADIOACTIVE WASTE FOR BURIAL 2ND Quarter, 2000

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	Curies* Per Shipment
04/28/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	3.82E-01
05/09/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	4.08E+01	2.01E-01
05/11/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	3.93E-01
05/11/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	6.09E+01	2.39E-01
05/12/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	7.30E+01	5.07E-01
05/16/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	4.08E+01	8.24E-02
05/17/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG- TIGHT CONTAINER, NONE	EXCLUSIVE-USE	WAMPUM, PA	3.63E+01	4.95E-02
05/19/2000	MIXED BED ION-EXCHANGE MEDIA, RADIOACTIVE MATERIAL, nos, 7, UN2982, CLASS B, TYPE B CONTAINER, NONE	EXCLUSIVE-USE	BARNWELL, SC	3.41E+00	1.26E+02
05/19/2000	DRY ACTIVE WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	7.25E+01	1.42E-02
06/07/2000	OIL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	2.40E+01	1.10E-02
Quarterly Totals		Number of Shipments:	20	1.11E+03	1.39E+02
				CUBIC M	CURIES

* Calculated using measured ratios

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SOLID RADIOACTIVE WASTE FOR BURIAL 3RD QUARTER, 2000

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	Curies* Per Shipment
07/20/2000	OIL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	2.40E+01	6.98E-03
07/24/2000	DRY ACTIVE WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	7.25E+01	4.62E-02
09/08/2000	MIXED BED ION-EXCHANGE MEDIA, SOIL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	3.63E+01	1.00E-04
09/12/2000	MECHANICAL FILTERS, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS C, TYPE A CONTAINER, NONE	EXCLUSIVE-USE	BARNWELL, SC	3.75E+00	5.35E+01
09/21/2000	CONTAMINATED METAL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	7.25E+01	9.27E-03
Quarterly Totals		Number of Shipments:	5	2.09E+02	5.36E+01
				CUBIC M	CURIES

* Calculated using measured ratios

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SOLID RADIOACTIVE WASTE FOR BURIAL 4TH QUARTER, 2000

DATE	DISPOSITION OF MATERIAL (DESCRIPTION, CLASS, TYPE AND SOLIDIFYING AGENT)	MODE OF TRANSPORT	DESTINATION	VOLUME PER SHIPMENT	Curies* Per Shipment
10/18/2000	DRY ACTIVE WASTE MIXED BED ION- EXCHANGE MEDIA, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	7.25E+01	1.15E-02
10/19/2000	DRY ACTIVE WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	1.07E+01	2.05E+00
11/08/2000	OIL, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	2.40E+01	4.51E-03
12/05/2000	DRY ACTIVE WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	7.25E+01	7.70E-01
12/11/2000	CONTAMINATED WOOD, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	OAK RIDGE, TN	7.25E+01	2.93E-02
12/12/2000	MIXED BED ION-EXCHANGE MEDIA, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS A, TYPE A CONTAINER, NONE	EXCLUSIVE-USE	BARNWELL, SC	4.84E+00	5.29E+01
12/15/2000	MIXED WASTE, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, D001, F002, FREON, PAINT SOLIDS, CLASS A, STRONG-TIGHT CONTAINER, NONE	EXCLUSIVE-USE	RICHLAND, WA	3.63E+01	4.72E-04
12/18/2000	MECHANICAL FILTERS, LOW SPECIFIC ACTIVITY, nos, 7, UN2912, CLASS B, TYPE A CONTAINER, NONE	EXCLUSIVE-USE	BARNWELL, SC	4.84E+00	5.57E+01
Quarterly Totals		Number of Shipments:	8	2.98E+02	1.11E+02
				CUBIC M	CURIES

* Calculated using measured ratios

SOLID RADIOACTIVE WASTE FOR BURIAL, ADDENDUM

A. Estimated Solid Waste Composition

Contaminated Metal

Nuclide	uCi/ml	%
C14	1.54E-02	0.39
Cr51	3.96E-02	0.99
Mn54	3.34E-02	0.84
Fe55	1.68E+00	42.14
Co57	2.75E-03	0.07
Co58	2.41E-01	6.04
Co60	8.88E-01	22.27
Ni63	9.77E-01	24.50
Zn65	1.09E-02	0.27
Sr90	2.08E-05	0.00
Zr95	1.55E-02	0.39
Nb95	3.75E-02	0.94
Tc99	1.15E-05	0.00
Ag110m	1.62E-02	0.41
Sn113	3.89E-03	0.10
Te123m	7.39E-04	0.02
Sb125	1.62E-02	0.41
I129	1.33E-05	0.00
Cs137	2.91E-03	0.07
Ce144	5.48E-03	0.14
Pu238	8.47E-06	0.00
Pu239	4.19E-06	0.00
Pu241	4.09E-04	0.01
Am241	4.78E-06	0.00
Cm242	5.66E-06	0.00
Cm243	1.22E-05	0.00

Primary Resin

Nuclide	uCi/ml	%
H3	1.88E-01	0.41%
C14	1.79E-01	0.39%
Be7	2.68E-01	0.59%
Cr51	1.32E-04	0.00%
Mn54	4.27E+00	9.36%
Fe55	1.69E+01	37.05%
Co57	1.30E-01	0.28%
Co58	1.86E+00	4.08%
Fe59	4.17E-03	0.01%
Co60	9.49E+00	20.80%
Ni63	1.12E+01	24.55%
Zn65	1.28E-01	0.28%
Sr90	6.49E-03	0.01%
Zr95	2.69E-02	0.06%
Nb95	9.88E-03	0.02%
Tc99	1.36E-04	0.00%
Sn113	3.33E-02	0.07%
Sb125	5.61E-01	1.23%
I129	1.57E-04	0.00%
Cs137	1.20E-03	0.00%
Ce144	3.58E-01	0.78%
Pu238	9.91E-05	0.00%
Pu239	4.83E-05	0.00%
Pu241	4.94E-03	0.01%
Am241	5.69E-05	0.00%
Cm242	2.16E-05	0.00%
Cm243	1.44E-04	0.00%

Radwaste Resin

Nuclide	uCi/ml	%
H3	2.43E-01	10.85
Be7	4.87E-03	0.22
C14	7.89E-03	0.35
Cr51	1.64E-05	0.00
Mn54	1.19E-01	5.31
Fe55	7.37E-01	32.91
Co57	6.15E-03	0.27
Co58	1.38E-01	6.16
Fe59	6.43E-05	0.00
Co60	4.21E-01	18.80
Ni63	5.00E-01	22.33
Zn65	4.42E-03	0.20
Sr90	2.81E-04	0.01
Zr95	3.01E-04	0.01
Nb95	2.80E-04	0.01
Tc99	5.93E-06	0.00
Ag110m	3.37E-05	0.00
Sn113	6.37E-04	0.03
Sb125	2.39E-02	1.07
I129	6.85E-06	0.00
Cs134	9.81E-04	0.04
Cs137	9.65E-03	0.43
Ce144	2.18E-02	0.97
Pu238	4.33E-06	0.00
Pu239	2.15E-06	0.00
Pu241	2.04E-04	0.01
Am241	2.45E-06	0.00
Cm242	1.22E-06	0.00
Cm243	6.15E-06	0.00

Mechanical Filters

Nuclide	uCi/ml	%
H3	3.00E-02	0.06%
C14	1.15E-01	0.21%
Mn54	2.22E-01	0.41%
Fe55	1.16E+01	21.57%
Co57	1.30E-01	0.24%
Co58	2.89E+01	53.75%
Co60	5.91E+00	10.99%
Ni63	6.29E+00	11.70%
Sr90	1.48E-04	0.00%
Tc99	7.70E-05	0.00%
I129	8.87E-05	0.00%
Cs137	1.52E-01	0.28%
Ce144	4.13E-01	0.77%
Pu238	5.63E-05	0.00%
Pu239	2.74E-05	0.00%
Pu241	3.40E-03	0.01%
Am241	3.40E-05	0.00%
Cm242	3.74E-05	0.00%
Cm243	8.92E-05	0.00%

Dry Active Waste

Nuclide	uCi/ml	%
H3	7.97E-05	41.73
C14	3.26E-07	0.17
Cr51	1.49E-06	0.78
Mn54	3.81E-06	1.99
Fe55	3.20E-05	16.76
Co57	2.61E-07	0.14
Co58	2.77E-05	14.50
Fe59	6.30E-07	0.33
Co60	1.79E-05	9.37
Ni63	2.08E-05	10.89
Zn65	3.67E-07	0.19
Sr90	4.37E-10	0.00
Zr95	2.73E-06	1.43
Nb95	1.04E-06	0.54
Tc99	2.45E-10	0.00
Sn113	3.22E-07	0.17
Te123m	1.14E-07	0.06
Sb124	2.01E-08	0.01
Sb125	8.25E-07	0.43
I129	2.82E-10	0.00
Cs137	2.42E-07	0.13
Ce144	6.95E-07	0.36
Pu238	1.80E-10	0.00
Pu239	8.89E-11	0.00
Pu241	8.52E-09	0.00
Am241	1.01E-10	0.00
Cm242	6.25E-11	0.00
Cm243	2.56E-10	0.00

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January, 2000 THROUGH December, 2000

- A. Changes to Radioactive Waste Process Control Program for 2000 were primarily administrative. The Process Control Procedures were standardized to a corporate format. Operationally, the Process Control Program remains unchanged.

In addition, a filtration system was installed to treat floor equipment drain water.

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

Sampling error = 1 to 3.5%
Calibration error = 5%
Counting statistics error = 5%
Vent stack flowrates error = 1.5%

Total error = 7 – 8%

2. Liquid Effluents

Sampling error = 1%
Calibration error = 5%
Sample volume error = 1%
Discharged volume error = 2%
Counting statistics error = 0.41%

Total error = 5.6%

3. Waste Resin

Sample prep = 5%
Sampling error = 1%
Counting statistic error = 1%
Weight error = 0.5%
Calibration error = 5%

Total error = 7.2%

4. DAW, Mechanical Filters, and Contaminated Metal

Counting statistic error = 1%
Calibration error = 5%
Instrument calibration error = 10%

Total error = 11%

BYRON NUCLEAR POWER STATION
UNIT 1/2 DOCKET NUMBER STN-50-454/455
RADIOACTIVE EFFLUENT RELEASE REPORT
January, 2000 THROUGH December, 2000

- C. Meteorological and environmental impact information is reported in the Station Annual Radiological Environmental Operating Report as required by Technical Specification 5.6.2.
- D. 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.
- E. There were no irradiated fuel shipments during this period.
- F. There were no elevated releases. All releases are considered vent or ground level releases.
- G. No liquid or Gaseous Effluent Monitor exceeded the specified LCO time limit.
- H. In July of 2000, the REMP control sample for Milk was changed. The previous collection site opted out of the program. The current location is in Sector D at a distance of 20.6 km.
- J. Attached are Offsite Dose Calculations for January through December of 2000.

Attachment A, 2000 Radioactive Effluent Release Report

Lower Limit of Detection Gaseous Effluents

Nuclides	LLD (Ci/ml)
H3	3.61E-17
Ar41	8.95E-13
Mn54	3.98E-19
Co58	6.48E-19
Fe59	8.98E-19
Co60	4.85E-19
Zn65	1.32E-18
Kr85	6.09E-12
Kr85m	1.60E-13
Kr87	4.22E-13
Kr88	6.58E-13
Sr89	3.18E-18
Sr-90	6.44E-19
Mo99	2.30E-19
I131	3.91E-19
Xe131m	6.40E-13
I133	4.33E-19
Xe133	6.08E-13
Xe133m	1.19E-12
Cs134	4.66E-19
I135	4.00E-18
Xe135	1.89E-13
Xe135m	3.69E-13
Cs137	5.38E-19
Xe138	6.59E-13
Ba140	1.33E-18
La140	3.74E-19
Ce141	4.54E-19
Ce144	2.00E-18
Gross Alpha	5.63E-19

Lower Limit of Detection Aqueous Effluents

Nuclides	LLD (Ci/ml)
H3	1.92E-12
Na24	4.05E-14
Ar41	3.29E-14
Cr51	2.30E-13
Mn54	3.03E-14
Fe55	1.14E-13
Co57	1.89E-14
Co58	2.36E-14
Fe59	6.02E-14
Co60	5.41E-14
Zn65	4.37E-14
Kr88	8.70E-14
Sr85	2.43E-14
Sr89	1.25E-14
Sr-90	1.81E-15
Sr92	5.11E-14
Nb95	3.09E-14
Zr95	6.19E-14
Mo99	1.88E-14
Tc99m	1.88E-14
Ag110m	2.41E-14
Sb122	3.55E-14
Te123m	1.95E-14
Sb124	1.16E-14
Sb125	9.07E-14
Te125m	6.93E-12
Sb126	1.81E-14
I131	2.44E-14
I132	3.80E-14
Te132	2.13E-14
I133	1.76E-14
Xe133	6.16E-14
Xe133m	2.19E-07
Cs134	3.26E-14
Xe135	2.49E-14
Xe135m	1.56E-13
Cs136	2.62E-14
Cs137	3.12E-14
Ba140	1.32E-13
La140	6.22E-14
Ce141	3.84E-14
Ce144	1.24E-13
Pr144	3.49E-12
Hf181	2.41E-14
Gross Alpha	9.72E-14

Attachment B, 2000 Radioactive Effluent Release Report

BYRON NUCLEAR POWER STATION UNIT 1, (DOCKET NUMBER STN-50-454) RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY, 2000 THROUGH DECEMBER, 2000

1B POWER OPERATED ATMOSPHERIC RELEASE VALVE STEAM LEAK

In January 1999, it was discovered that the B power operated atmospheric release valve (PORV) was whispering steam. After multiple attempts at repairs, the PORV would leak steam when in the unisolated position. The PORV was repaired on June 9, 2000. The following is the analysis of this leak and attributed dose to an off-site recipient during the year 2000.

It was determined that the leak had a flow rate of 0.05 ft³/min. A radiological isotopic analysis from the steam jet air ejectors was used to determine the nuclide composition and associated concentrations.

With this information, it was determined that:

<u>Isotope</u>	<u>Units</u>	<u>Activity</u>
Ar-41	Ci	7.96E-3
Xe-133	Ci	1.12E-4
Xe-135	Ci	9.88E-4
Xe-135m	Ci	1.73E-4
Total	Ci	9.24E-3

was released.

Since the radionuclide composition of the steam was Noble Gas, all four off-site recipient models were calculated to have received the same dose. The table, below, shows the calculated dose for the two quarters to the highest theoretical individual.

	<u>First Quarter</u>	<u>Second Quarter</u>
Gamma (mrad)	1.51E-6	1.17E-6
Beta (mrad)	2.10E-6	1.61E-6
Total Body (mrem)	1.14E-6	8.74E-7
Skin (mrem)	2.88E-6	2.21E-6

The percentage of the respective 10 CFR 50 Design Objectives is:

	<u>Quarterly Objective</u>	<u>First Quarter</u>	<u>Second Quarter</u>
Gamma	5.0 mrad	0.00	0.00
Beta	10.0 mrad	0.00	0.00
Total Body	2.5 mrem	0.00	0.00
Skin	7.5 mrem	0.00	0.00

Attachment C, 2000 Radioactive Effluent Release Report

BYRON NUCLEAR POWER STATION UNIT 2, (DOCKET NUMBER STN-50-455) RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY, 2000 THROUGH DECEMBER, 2000

2C POWER OPERATED ATMOSPHERIC RELEASE VALVE STEAM LEAK

In July 2000, it was discovered that the C power operated atmospheric release valve (PORV) was whispering steam. This leak continued through the remainder of the calendar year. The following is the analysis of this leak and attributed dose to an off-site recipient during the year 2000.

It was determined that the leak had a flow rate of 0.5 ft³/min. A radiological isotopic analysis from the steam jet air ejectors was used to determine the nuclide composition and associated concentrations.

With this information, it was determined that:

<u>Isotope</u>	<u>Units</u>	<u>Activity</u>
Ar-41	Ci	1.06E-3
Total	Ci	1.06E-3

was released.

Since the radionuclide composition of the steam was Noble Gas, all four off-site recipient models were calculated to have received the same dose. The table, below, shows the calculated dose for the two quarters to the highest theoretical individual.

	<u>Third Quarter</u>	<u>Fourth Quarter</u>
Gamma (mrad)	1.46E-7	1.95E-7
Beta (mrad)	1.92E-7	2.55E-7
Total Body (mrem)	1.10E-7	1.47E-7
Skin (mrem)	2.71E-7	3.61E-7

The percentage of the respective 10 CFR 50 Design Objectives is:

	<u>Quarterly Objective</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
Gamma	5.0 mrad	0.00	0.00
Beta	10.0 mrad	0.00	0.00
Total Body	2.5 mrem	0.00	0.00
Skin	7.5 mrem	0.00	0.00

Attachment D, 2000 Effluent Release Report

BYRON NUCLEAR POWER STATION UNIT 1/2, (DOCKET NUMBER STN-50-454/455) RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY, 2000 THROUGH DECEMBER, 2000

RADIOACTIVE WASTE VOLUME REDUCTION EFFLUENT PATHWAY

In September, 2000, while performing a radioactive waste shipment, the doors that connect the inner radioactive waste volume reduction building to the outer truck bay and the outer truck bay to the environment were open simultaneously. This configuration was put into place to accommodate the movement of a cask containing radioactive waste from the inner building to the exterior of the building in preparation for shipment. During this evolution approximately 55 nanoCuries were calculated to have been released. The radionuclide analysis showed a make up of:

<u>Isotope</u>	<u>Units</u>	<u>Activity</u>
Co-58	Ci	5.52E-8

The above data was used to calculate the 10 CFR 50 maximum dose to the organs. The following table list the organ dose, in mrem, to the maximally exposed infant, child, teenager, and adult member of the public. This calculated dose would be assigned to both units since the Volume Reduction Building is common to both units.

DOSE TO THE MAXIMALLY EXPOSED ORGAN BY AGE GROUP	mrem	% of 10 CFR 50 Quarterly Design Objectives (7.5 mrem)
Infant	7.53E-9	0.00
Child	8.73E-9	0.00
Teenager	9.59E-9	0.00
Adult	8.08E-9	0.00

* DELIVER TO HEALTH PHYSICS *

AIRBORNE Effluents- 10CFR50 Listing

10-feb-2001 14:27:12

STATION: BYRON STATION
UNIT: 1
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

BYRON STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	5.43E-07	9.18E-07	2.69E-06	2.27E-06	6.42E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	2.17E-06	2.74E-06	5.78E-06	8.96E-06	1.97E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.82E-07	6.59E-07	1.97E-06	1.60E-06	4.61E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	1.07E-06	1.61E-06	4.59E-06	4.50E-06	1.18E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	6.73E-05	7.62E-05	8.28E-05	1.64E-04	3.90E-04
(MREM)	(NE)	(NE)	(NE)	(NE)	(NE)
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
INFANT RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
 CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	5.43E-07	9.18E-07	2.69E-06	2.27E-06	6.42E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	2.17E-06	2.74E-06	5.78E-06	8.96E-06	1.97E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.82E-07	6.59E-07	1.97E-06	1.60E-06	4.61E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	1.07E-06	1.61E-06	4.59E-06	4.50E-06	1.18E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	4.74E-05	2.29E-04	3.25E-04	1.68E-04	7.24E-04
(MREM)	(NE)	(SSE)	(SSE)	(S)	(SE)
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
 CHILD RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01

TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	5.43E-07	9.18E-07	2.69E-06	2.27E-06	6.42E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	2.17E-06	2.74E-06	5.78E-06	8.96E-06	1.97E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.82E-07	6.59E-07	1.97E-06	1.60E-06	4.61E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	1.07E-06	1.61E-06	4.59E-06	4.50E-06	1.18E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	3.10E-05	1.50E-04	2.12E-04	1.20E-04	4.80E-04
(MREM)	(NE)	(SSE)	(SSE)	(S)	(SE)
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
TEENAGER RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	5.43E-07 (SSE)	9.18E-07 (SSE)	2.69E-06 (SSE)	2.27E-06 (SSE)	6.42E-06 (SSE)
BETA AIR (MRAD)	2.17E-06 (SSE)	2.74E-06 (SSE)	5.78E-06 (SSE)	8.96E-06 (SSE)	1.97E-05 (SSE)
TOT. BODY (MREM)	3.82E-07 (SSE)	6.59E-07 (SSE)	1.97E-06 (SSE)	1.60E-06 (SSE)	4.61E-06 (SSE)
SKIN (MREM)	1.07E-06 (SSE)	1.61E-06 (SSE)	4.59E-06 (SSE)	4.50E-06 (SSE)	1.18E-05 (SSE)
ORGAN (MREM)	4.30E-05 (S)	1.38E-04 (S)	1.89E-04 (SE)	1.44E-04 (S)	5.08E-04 (S)
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
 ADULT RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	GI_LLI	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

* DELIVER TO HEALTH PHYSICS *

AIRBORNE Effluents- 10CFR50 Listing

10-feb-2001 14:10:45

STATION: BYRON STATION
UNIT: 2
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

BYRON STATION UNIT TWO

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01

INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	4.30E-07	9.18E-07	1.98E-06	2.58E-06	5.91E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	1.73E-06	3.16E-06	4.25E-06	8.86E-06	1.80E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.02E-07	6.53E-07	1.45E-06	1.84E-06	4.24E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	8.45E-07	1.71E-06	3.33E-06	4.80E-06	1.07E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	1.69E-04	1.90E-04	4.62E-04	1.67E-04	9.88E-04
(MREM)	(NE)	(NE)	(NE)	(NE)	(NE)
	LIVER	LIVER	THYROID	LUNG	THYROID
	THYROID	THYROID			
	KIDNEY	KIDNEY			
	LUNG	LUNG			
	GI_LLI	GI_LLI			

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I

INFANT RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.01	0.00	15.0	0.01
		LIVER	LIVER	THYROID	LUNG		THYROID
		THYROID	THYROID				
		KIDNEY	KIDNEY				
		LUNG	LUNG				
		GI_LLI	GI_LLI				

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
 CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	4.30E-07	9.18E-07	1.98E-06	2.58E-06	5.91E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	1.73E-06	3.16E-06	4.25E-06	8.86E-06	1.80E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.02E-07	6.53E-07	1.45E-06	1.84E-06	4.24E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	8.45E-07	1.71E-06	3.33E-06	4.80E-06	1.07E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	1.19E-04	5.14E-04	1.81E-03	2.26E-04	2.58E-03
(MREM)	(NE)	(SSE)	(SSE)	(S)	(SSE)
	LIVER	LIVER	THYROID	GI_LLI	THYROID
	THYROID	THYROID			
	KIDNEY	KIDNEY			
	LUNG	LUNG			
	GI_LLI	GI_LLI			

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
 CHILD RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.01	0.02	0.00	15.0	0.02
		LIVER	LIVER	THYROID	GI_LLI		THYROID
		THYROID	THYROID				
		KIDNEY	KIDNEY				
		LUNG	LUNG				
		GI_LLI	GI_LLI				

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
 TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	4.30E-07	9.18E-07	1.98E-06	2.58E-06	5.91E-06
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
BETA AIR	1.73E-06	3.16E-06	4.25E-06	8.86E-06	1.80E-05
(MRAD)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
TOT. BODY	3.02E-07	6.53E-07	1.45E-06	1.84E-06	4.24E-06
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
SKIN	8.45E-07	1.71E-06	3.33E-06	4.80E-06	1.07E-05
(MREM)	(SSE)	(SSE)	(SSE)	(SSE)	(SSE)
ORGAN	7.76E-05	3.36E-04	1.18E-03	1.59E-04	1.69E-03
(MREM)	(NE)	(SSE)	(SSE)	(S)	(SE)
	LIVER	LIVER	THYROID	GI_LLI	GI_LLI
	THYROID	THYROID			
	KIDNEY	KIDNEY			
	LUNG	LUNG			
	GI_LLI	GI_LLI			

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
 TEENAGER RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.02	0.00	15.0	0.01
		LIVER	LIVER	THYROID	GI_LLI		GI_LLI
		THYROID	THYROID				
		KIDNEY	KIDNEY				
		LUNG	LUNG				
		GI_LLI	GI_LLI				

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/10/01
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	4.30E-07 (SSE)	9.18E-07 (SSE)	1.98E-06 (SSE)	2.58E-06 (SSE)	5.91E-06 (SSE)
BETA AIR (MRAD)	1.73E-06 (SSE)	3.16E-06 (SSE)	4.25E-06 (SSE)	8.86E-06 (SSE)	1.80E-05 (SSE)
TOT. BODY (MREM)	3.02E-07 (SSE)	6.53E-07 (SSE)	1.45E-06 (SSE)	1.84E-06 (SSE)	4.24E-06 (SSE)
SKIN (MREM)	8.45E-07 (SSE)	1.71E-06 (SSE)	3.33E-06 (SSE)	4.80E-06 (SSE)	1.07E-05 (SSE)
ORGAN (MREM)	1.08E-04 (S)	3.21E-04 (S)	1.05E-03 (SE)	1.83E-04 (S)	1.63E-03 (S)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I
 ADULT RECEPTOR

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.01	0.00	15.0	0.01
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

* DELIVER TO HEALTH PHYSICS *

AQUATIC Effluents- 10CFR50 Listing

28-feb-2001 09:16:43

STATION: BYRON STATION
UNIT: 1
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

BYRON STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.95E-04	6.23E-04	5.73E-04	3.03E-04	1.99E-03
BODY					
INTERNAL	4.96E-04	6.23E-04	5.73E-04	3.03E-04	2.00E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.03	0.04	0.04	0.02	3.0	0.07
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.95E-04	6.23E-04	5.73E-04	3.03E-04	1.99E-03
BODY					
INTERNAL	4.96E-04	6.23E-04	5.73E-04	3.03E-04	2.00E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.050
BODY		
INTERNAL	4.0 MREM	0.050
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	5.77E-04	7.10E-04	6.54E-04	3.59E-04	2.30E-03
BODY					
INTERNAL	6.67E-04	7.17E-04	6.61E-04	4.20E-04	2.46E-03
ORGAN					
	GI_LLI	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.04	0.05	0.04	0.02	3.0	0.08
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01

CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.98E-04	6.27E-04	5.76E-04	3.04E-04	2.01E-03
BODY					
INTERNAL	4.99E-04	6.27E-04	5.77E-04	3.06E-04	2.01E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.050
BODY		
INTERNAL	4.0 MREM	0.050
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	3.48E-04	4.25E-04	3.95E-04	2.18E-04	1.39E-03
BODY					
INTERNAL	5.83E-04	4.47E-04	4.02E-04	3.91E-04	1.82E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.02	0.03	0.03	0.01	3.0	0.05
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	2.60E-04	3.27E-04	3.01E-04	1.59E-04	1.05E-03
BODY					
INTERNAL	2.62E-04	3.28E-04	3.01E-04	1.61E-04	1.05E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.026
BODY		
INTERNAL	4.0 MREM	0.026
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.81E-04	5.93E-04	5.53E-04	2.98E-04	1.93E-03
BODY					
INTERNAL	7.85E-04	6.21E-04	5.62E-04	5.31E-04	2.50E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.03	0.04	0.04	0.02	3.0	0.06
CRIT. ORGAN (MREM)	5.0	0.02	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	3.68E-04	4.64E-04	4.27E-04	2.25E-04	1.48E-03
BODY					
INTERNAL	3.71E-04	4.64E-04	4.27E-04	2.29E-04	1.49E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.037
BODY		
INTERNAL	4.0 MREM	0.037
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

* DELIVER TO HEALTH PHYSICS *

AQUATIC Effluents- 10CFR50 Listing

28-feb-2001 09:18:46

STATION: BYRON STATION
UNIT: 2
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.95E-04	6.23E-04	5.73E-04	3.03E-04	1.99E-03
BODY					
INTERNAL	4.96E-04	6.23E-04	5.73E-04	3.03E-04	2.00E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.03	0.04	0.04	0.02	3.0	0.07
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.95E-04	6.23E-04	5.73E-04	3.03E-04	1.99E-03
BODY					
INTERNAL	4.96E-04	6.23E-04	5.73E-04	3.03E-04	2.00E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.050
BODY		
INTERNAL	4.0 MREM	0.050
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	5.77E-04	7.10E-04	6.54E-04	3.59E-04	2.30E-03
BODY					
INTERNAL	6.67E-04	7.17E-04	6.61E-04	4.20E-04	2.46E-03
ORGAN					
	GI_LLI	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.04	0.05	0.04	0.02	3.0	0.08
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.98E-04	6.27E-04	5.76E-04	3.04E-04	2.01E-03
BODY					
INTERNAL	4.99E-04	6.27E-04	5.77E-04	3.06E-04	2.01E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.050
BODY		
INTERNAL	4.0 MREM	0.050
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	3.48E-04	4.25E-04	3.95E-04	2.18E-04	1.39E-03
BODY					
INTERNAL	5.83E-04	4.47E-04	4.02E-04	3.91E-04	1.82E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.02	0.03	0.03	0.01	3.0	0.05
CRIT. ORGAN (MREM)	5.0	0.01	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	2.60E-04	3.27E-04	3.01E-04	1.59E-04	1.05E-03
BODY					
INTERNAL	2.62E-04	3.28E-04	3.01E-04	1.61E-04	1.05E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.026
BODY		
INTERNAL	4.0 MREM	0.026
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE
 COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER
 FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

ACTUAL 2000
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.81E-04	5.93E-04	5.53E-04	2.98E-04	1.93E-03
BODY					
INTERNAL	7.85E-04	6.21E-04	5.62E-04	5.31E-04	2.50E-03
ORGAN					
	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.03	0.04	0.04	0.02	3.0	0.06
CRIT. ORGAN (MREM)	5.0	0.02	0.01	0.01	0.01	10.0	0.02
		GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 02/28/01
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	3.68E-04	4.64E-04	4.27E-04	2.25E-04	1.48E-03
BODY					
INTERNAL	3.71E-04	4.64E-04	4.27E-04	2.29E-04	1.49E-03
ORGAN	GI_LLI	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 MREM	0.037
BODY		
INTERNAL	4.0 MREM	0.037
ORGAN		

GI_LLI

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995

* DELIVER TO HEALTH PHYSICS *

28-feb-2001 09:12:21

Total Effective Dose Equivalent - 10CFR20 Listing

STATION: BYRON STATION
UNIT: 1
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

For ADULT dose calculations, the included pathways are:

INHALATION
MILK
PRODUCE
VEGETABLES
MEAT
GROUND DEPOSITION
FISH
WATER
SKYSHINE
WHOLE BODY

Airborne Effluents are complete from 01/01/00 to 12/31/00
Aquatic Effluents are complete from 01/01/00 to 12/31/00
Skyshine entries are complete from N/A to N/A

BYRON STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 02/28/01

1. 10 CFR 20.1301 (a)(1) Compliance

Total Effective Dose Equivalent, mrem/yr 1.79E-03

10 CFR 20.1301 (a)(1) limit mrem/yr 100.0

% of limit 0.00

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	4.32E-04	4.89E-04	4.96E-04	3.79E-04	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT ONE
10 CFR 20 COMPLIANCE ASSESSMENT
PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00
CALCULATED 02/28/01

2. 10 CFR 20.1301 (d)/40 CFR 190 Compliance

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	4.61E-06		
	Skyshine	0.00E+00		
	Ground	8.51E-07		
	Total	5.46E-06	25.0	0.00
Organ Dose (CDE)	Thyroid	1.63E-03	75.0	0.00
	Gonads	1.64E-03	25.0	0.01
	Breast	1.60E-03	25.0	0.01
	Lung	1.60E-03	25.0	0.01
	Marrow	1.81E-03	25.0	0.01
	Bone	3.87E-03	25.0	0.02
	Remainder	1.88E-03	25.0	0.01
	CEDE	1.79E-03		
	TEDE	1.79E-03	100.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

* DELIVER TO HEALTH PHYSICS *

28-feb-2001 09:13:48

Total Effective Dose Equivalent - 10CFR20 Listing

STATION: BYRON STATION
UNIT: 2
PERIOD: 01/01/00 12/31/00
NAME: ROBINSON
REPORT: ANNUAL
MODE: ACTUAL

For ADULT dose calculations, the included pathways are:

INHALATION
MILK
PRODUCE
VEGETABLES
MEAT
GROUND DEPOSITION
FISH
WATER
SKYSHINE
WHOLE BODY

Airborne Effluents are complete from 01/01/00 to 12/31/00
Aquatic Effluents are complete from 01/01/00 to 12/31/00
Skyshine entries are complete from N/A to N/A

BYRON STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 02/28/01

1. 10 CFR 20.1301 (a)(1) Compliance

Total Effective Dose Equivalent, mrem/yr 2.73E-03

10 CFR 20.1301 (a)(1) limit mrem/yr 100.0

% of limit 0.00

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	4.87E-04	6.41E-04	1.19E-03	4.15E-04	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

BYRON STATION UNIT TWO
 10 CFR 20 COMPLIANCE ASSESSMENT
 PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00
 CALCULATED 02/28/01

2. 10 CFR 20.1301 (d)/40 CFR 190 Compliance

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	4.24E-06		
	Skyshine	0.00E+00		
	Ground	1.16E-07		
	Total	4.36E-06	25.0	0.00
Organ Dose (CDE)	Thyroid	2.56E-03	75.0	0.00
	Gonads	2.58E-03	25.0	0.01
	Breast	2.54E-03	25.0	0.01
	Lung	2.54E-03	25.0	0.01
	Marrow	2.75E-03	25.0	0.01
	Bone	4.81E-03	25.0	0.02
	Remainder	2.82E-03	25.0	0.01
	CEDE	2.73E-03		
	TEDE	2.73E-03	100.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.3 MARCH 1996
 ODCM SOFTWARE VERSION 1.1 January 1995
 ODCM DATABASE VERSION 1.1 January 1995