Exelon Generation Company, LLC
Braidwood Station
35100 South Rt 53, Suite 84
Braceville, IL 60407-9619
Tel. 815-417-2000

www.exeloncorp.com

Exelon Nuclear

May 14, 2002
BW020045

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Braidwood Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Subject: 2001 Annual Radiological Environmental Operating Report

Attached is the 2001 Annual Radiological Environmental Operating Report for Braidwood Station. This report is being submitted in accordance with Technical Specification 5.6.2, "Annual Radiological Environmental Operating Report." This report contains information associated with the station's radiological environmental and meteorological monitoring programs. This information is consistent with the objectives described in the Offsite Dose Calculation Manual and 10 CFR 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation To Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material In Light-Water-Cooled Nuclear Power Reactor Effluents," Sections IV.B.1, IV.B.2, and IV.B.3. Technical Specification 5.6.2 requires the Annual Radiological Environmental Operating Report to be submitted by May 15th of each year.

If you have any questions regarding this information, please contact Amy Ferko, Regulatory Assurance Manager, at (815) 417-2699.

Respectfully,

James D. von Suskil
Site Vice President
Braidwood Station

Attachment

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Braidwood Station

IE25

May 14, 2002
BW 020045

bcc: Braidwood Station Project Manager, NRR - NRC
Nicholas Reynolds - Winston & Strawn
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety
Vice President - Licensing and Regulatory Affairs
Director, Licensing - Midwest Regional Operating Group
Regulatory Assurance Manager - Braidwood Station
Manager, Licensing - Braidwood and Byron Stations
Braidwood Nuclear Licensing Administrator
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BRAIDWOOD STATION

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

2001

MAY 2002

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INTRODUCTION

Braidwood Station, a two-unit PWR station, is located in Will County, Illinois, fifteen (15) miles south-southwest of Joliet, Illinois. Unit No. 1 is designed to have a capacity of 1187 MWe net and went critical on March 8, 1987. Unit 2 is designed to have a capacity of 1155 MWe net and went critical on March 8, 1988. The station has been designed to keep releases to the environment at levels below those specified in the regulations.

Liquid effluents from Braidwood Station are released to the Kankakee River in controlled batches after radioassay of each batch. Gaseous effluents are released to the atmosphere and are calculated on the basis of analyses of grab samples of noble gases and tritium, as well as continuously collected composite samples of iodine and particulate radioactivity sampled during the course of the year. The results of effluent analyses are summarized on a monthly basis. Airborne concentrations of noble gases, I-131, and particulate radioactivity in offsite areas are calculated using effluent and meteorological data.

Environmental monitoring is conducted by sampling at indicator and control (background) locations in the vicinity of the Braidwood Station to measure changes in radiation or radioactivity levels that may be attributable to station operations. If significant changes attributable to Braidwood Station are measured, these changes are correlated with effluent releases. External gamma radiation exposure from noble gases and internal dose from I-131 in milk are the most critical pathways at this site; however, an environmental monitoring program is conducted which includes these and other pathways.

SUMMARY

Calculations based on gaseous and liquid effluents, Illinois River flow and meteorological data indicate that public dose due to radioactive material attributable to Braidwood Station during the period does not exceed regulatory or Offsite Dose Calculation Manual (ODCM) limits.

The Total Effective Dose Equivalent (TEDE) due to licensed activities at Braidwood Station calculated for the maximally-exposed individual for the period is 1.36E-01 mrem. The annual limit on TEDE is 100 mrem.

The assessment of radiation doses to the public is performed in accordance with the ODCM. The results of these analyses confirm that the Station is operating in compliance with 10CFR50 Appendix I, 10CFR20 and 40CFR190.

1.0 EFFLUENTS

1.1 Gaseous Effluents to the Atmosphere

Measured concentrations of noble gases, radioiodine and particulate radioactivity released to the atmosphere during the year are listed in Table 1.1-1.

A total of 7.30E-01 curies of fission and activation gases were released with a maximum quarterly average release rate of 1.50E-02 μCi/sec at Unit 1 and 1.47E-02 μCi/sec at Unit 2.

A total of 2.35E-06 curies of I-131 were released with a maximum quarterly release rate of 2.96E-07 μCi/sec at Unit 1. Unit 2 releases were less than the lower limit of detection (LLD).

A total of 5.00E-05 curies of beta-gamma emitters were released as airborne particulate matter with a maximum quarterly average release rate of 2.16E-08 μCi/sec at Unit 1 and 6.10E-06 μCi/sec at Unit 2. Alpha-emitting radionuclides were less than the LLD for the year.

A total of 6.02E+01 curies of tritium was released with a maximum quarterly average release rate of 4.06E+00 μCi/sec at Unit 1 and 9.62E-01 μCi/sec at Unit 2.

1.2 Liquids Released to Kankakee River

A total of 1.24E+07 liters of radioactive liquid waste (prior to dilution) containing 1.11E-01 curies (excluding tritium, noble gases, and alpha) was discharged from the station. These wastes were released at a maximum quarterly average concentration of 9.35E-09 μCi/ml. A total of 3.70E-05 curies of alpha radioactivity were released at a maximum quarterly average concentration of 6.73E-12 μCi/ml. A total of 2.74E+03 curies of tritium was released from the station. Monthly release activities and principal radionuclides in liquid effluents are given in Table 1.2-1.

2.0 SOLID RADIOACTIVE WASTE

Solid radioactive wastes were shipped by truck to the Barnwell disposal facility and waste processors. For detail, refer to the Braidwood Station 2001 Radioactive Effluent Release Report.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

Table 3.1-1 summarizes the doses resulting from releases of airborne radioactivity via the different exposure pathways.

3.1.2.1 Iodine-131 Concentrations in Air

The calculated concentration contours for iodine in air are shown in Figure 3.1-3. Included in these calculations is an iodine cloud depletion factor which accounts for the phenomenon of elemental iodine deposition on the ground. The maximum annual offsite concentration is estimated to be 4.75E-07 pCi/m^3 for the year (Table 3.4-1).

3.1.2.2 Dose to Thyroid

The hypothetical thyroid dose to maximum exposed individual living near the station via ingestion of milk was calculated. The radionuclide considered was I-131 and the source of milk was taken to be the nearest dairy farm with the cows pastured from May through October. The maximum thyroid dose did not exceed 1.65E-01 mrem during the year (Table 3.1-1 [child]).

3.1.3 Concentrations of Particulates in Air

Concentration contours of radioactive airborne particulates are shown in Figure 3.1-4. The maximum annual offsite concentration is estimated to be 5.33E+00 pCi/m^3 (Table 3.4-1).

3.2 Liquid Effluent Pathways

The three principal pathways through the aquatic environment for potential doses to man from liquid waste are the ingestion of potable water, eating of aquatic foods, and exposure while on the shoreline. Not all of these pathways are significant or applicable at a given time or station but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC developed equations* were used to calculate the doses to the whole body, lower GI tracts, thyroid, bone, skin; specific parameters for use in the equations are given in the ComEd Offsite Dose Calculation Manual. The maximum whole body dose for the year was 3.18E-01 mrem and no organ dose exceeded 3.18E-01 mrem (Table 3.2-1 [child]).

3.3 Assessment of Dose to Member of Public

During the period January to December, 2001, Braidwood Station did not exceed the following limits as shown in Table 3.1-1 and Table 3.2-1 (based on annual average meteorological data), Figure 3.1-1 (based on concurrent meteorological data), and Table 3.3-1:

* Nuclear Regulatory Commission, Regulatory Guide 1.109 (Rev. 1).

- The RETS limits on dose or dose commitment to an individual due to radioactive materials in liquid effluents from each reactor unit (1.5 mrem to the whole body or 5 mrem to any organ during any calendar quarter; 3 mrem to the whole body or 10 mrem to any organ during any calendar year).

- The RETS limits on air dose in noble gases released in gaseous effluents to a member of the public from each reactor unit (5 mrad for gamma radiation or 10 mrad for beta radiation during any calendar quarter; 10 mrads for gamma radiation or 20 mrad for beta radiation during any calendar year).

- The RETS limits on dose to a member of the public due to iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from each reactor unit (7.5 mrem to any organ during any calendar quarter; 15 mrem to any organ during any calendar year).

- The 10CFR20 limit on Total Effective Dose Equivalent to individual members of the public (100 mrem).

4.0 SITE METEOROLOGY

A summary of the site meteorological measurements taken during each calendar quarter of the year is given in Appendix II. The data are presented as cumulative joint frequency distributions of the wind direction for the 203' level and wind speed class by atmospheric stability class determined from the temperature difference between 199' and 30' levels. Data recovery for these measurements was 99.7% during 2001 (Table 3.4-1).

5.0 ENVIRONMENTAL MONITORING

Table 5.0-1 provides an outline of the Radiological Environmental Monitoring Program (REMP) as required in current Technical Standards. Table 5.0-2 lists the sampling locations, sampling collection frequencies and analyses performed. Sampling locations are shown in Figures 5.0-1 to 5.0-4. Concentrations of radioactivity in various media are summarized in Tables 5.0-3 through 5.0-6. Tables listing all data are presented in Appendix III.

Specific findings for various environmental media are discussed below.

5.1 Gamma Radiation

External radiation dose was measured using CaF_2 thermoluminescent dosimeters (TLDs). Each location consists of 2 TLD sets. The quarterly average external radiation dose for the year was 19.4 mR at the indicator locations and 20.3 mR at the control locations. TLD results are listed in Section 4.0 of Appendix III and locations are shown in Figures 5.0-1 and 5.0-2.

Quarterly external radiation dose at indicator air sampling locations averaged 19.1 mR. Previous measurements are as follows: 1985 (12.0 mR), 1986 (12.6 mR), 1987 (14.4 mR), 1988 (13.6 mR), 1989 (13.5 mR), 1990 (14.6 mR), 1991 (14.2 mR), 1992 (13.9 mR) 1993 (14.1 mR), 1994 (13.7 mR), 1995 (12.3 mR), 1996 (13.1 mR), 1997 (13.6 mR), 1998 (14.5 mR),1999 (13.9 mR) and 2000 (14.7mR). The slight increase in 2001 is attributed to a new style TLD, provided and processed by an offsite vendor.

5.2 Airborne I-131 and Particulate Radioactivity

Airborne I-131 concentration remained below the LLD of 0.07 pCi/m^3 throughout the year in all samples. Locations are shown in Figure 5.0-2.

Gross beta concentrations ranged from 0.001 to 0.046 pCi/m^3 and averaged 0.027 pCi/m^3 and was similar to the average concentration in 1985 (0.028 pCi/m^3), 1986 (0.034 pCi/m^3, except for the period from May 16 through June 6 when it was influenced by the nuclear reactor accident at Chernobyl), 1987 (0.027 pCi/m^3), 1988 (0.031 pCi/m^3), 1989 (0.028 pCi/m^3), and similar to 1990 (0.024 pCi/m^3), 1991 (0.022 pCi/m^3), 1992 (0.022 pCi/m^3), 1993 (0.022 pCi/m^3), 1994 (0.021 pCi/m^3), 1995 (.0.023 pCi/m^3), 1996 (0.022 pCi/m^3), 1997 (0.023 pCi/m^3), 1998 (0.025 pCi/m^3), 1999 (0.027 pCi/m^3 and 2000 (0.028 pCi/m^3).

All gamma-emitting nuclide activity was below respective LLD levels. No activity attributable to station operation was detected in any sample.

5.3 Terrestrial Radioactivity

Vegetables were collected in August and analyzed for I-131 and gamma-emitting nuclides. I-131 and gamma-emitting nuclides were below the limits of detection indicating that there was no measurable amount of radioactivity attributable to the station releases.

5.4 Aquatic Radioactivity

Well water was collected quarterly from one nearsite well (BD-13) and four farsite wells (BD-34, BD-35, BD-36, BD-37) and was analyzed for tritium and gamma-emitting nuclides. Tritium levels at BD-13, BD-35 and BD-37 remained below the LLD level of 200 pCi/L. Tritium activity at BD-34 averaged 256 pCi/L with a first quarter high of 305 pCi/L. Tritium levels at BD-36 averaged 378 pCi/L with a fourth quarter high of 465 pCi/L. All gamma-emitters were below the LLD. These results are similar to those obtained since 1991 when tritium well water sampling was initiated.

Weekly surface water samples from BD-10 (Kankakee River, Downstream) and BD-25 (Kankakee River, Upstream) were composited monthly and analyzed for gamma-emitting nuclides and gross beta activity. Quarterly composites were analyzed for

tritium. Public water samples from BD-22 (Wilmington) were also composited monthly and analyzed for gamma-emitting nuclides, gross beta and tritium.

Cs-134 and Cs-137 concentrations were below the LLD level of 15 pCi/L and 18 pCi/L, respectively, in all samples.

Gross beta concentrations at BD-10 averaged 3.6 pCi/L with a range of 2.4-5.3 pCi/L; concentrations at BD-25 averaged 5.5 pCi/L with a range of 3.2-6.9 pCi/L. Gross beta concentrations at BD-22 averaged 3.4 pCi/L with a range of 2.0-7.0 pCi/L.

Tritium concentrations at BD-25 remained below the LLD level of 200 pCi/L in all samples. Tritium activity in samples from BD-10 was below LLD except for the third quarter level of 574 pCi/L. Tritium concentrations in public water samples (BD-22) averaged 861 pCi/L with a range of 45-3,795 pCi/L. These values are less than the reportable level of 20,000 pCi/L for drinking water, and are attributable to plant operation. These results were consistent with plant effluent releases and river flow dilution.

Sediment samples were collected twice a year, from two indicator locations (BD-10 and BD-41) in May and October, and analyzed for gamma-emitters. Cs-134 and Cs-137 concentrations were below the lower limit of detection (0.15 and 0.18 pCi/g dry weight, respectively) in all samples. These values are similar to those obtained in 1986 through 2000.

Levels of gamma radioactivity in fish were measured and all samples were below the LLD for the year.

Water, fish and sediment locations are shown in Figure 5.0-3.

5.5 Milk

Milk samples were collected monthly from November through April and biweekly from May through October and analyzed for I-131 and gamma-emitting nuclides. Milk locations are shown in Figure 5.0-3.

I-131 concentration was below the LLD level of 0.5 (May-October) and 5.0 (November-April) pCi/L in all samples.

Cs-134, Cs-137 and Ba/La-140 were below the LLD level of 15, 18 and 15 pCi/L, respectively. These results are identical to those obtained in 1986 through 2000.

5.6 Sample Collections

All samples were collected as scheduled except those listed in the Listing of Missed Samples, Section 2.0 of Appendix III.

5.7 Program Modifications

There were no changes to the program in 2001.

6.0 ANALYTICAL PROCEDURES

Procedures used during the period covered in this report remained unchanged. A summary of the procedures used for analyzing radioactivity in environmental samples is given in Appendix V of the report for the period January - December 1993.

7.0 MILCH ANIMALS AND NEAREST LIVESTOCK CENSUS

A census of milch animals and nearest cattle was conducted within a 6.2-mile radius of the Station. The survey was conducted by "door-to-door" canvas and by information from Illinois Agricultural Agents. The census was conducted by A. Lewis on August 21, 2001.

Results of the milch animal and nearest cattle census are presented on page 40 and 41 of Appendix III.

8.0 NEAREST RESIDENCE CENSUS

A census of the nearest residences within a 6.2-mile radius was conducted by A. Lewis on August 21, 2001.

Results of the nearest residence census are presented on page 42 of Appendix III.

9.0 INTERLABORATORY COMPARISON PROGRAM RESULTS

Environmental Incorporated's Interlaboratory Comparison Program Results are presented in Appendix IV.

10.0 ERRATA DATA

Errata data, if any, is presented in Appendix V.

There is no errata data for 2001.

BRAIDWOOD

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2001
GAS RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
A. Fission and Activation Gas Releases						
1. Total Release Activity	Ci	8.45E-02	9.28E-02	1.19E-01	5.38E-02	**3.50E-01**
2. Average Release Rate	uCi/sec	1.09E-02	1.18E-02	1.50E-02	6.77E-03	1.11E-02
B. Iodine Releases						
1. Total I-131 Activity	Ci	<LLD	<LLD	<LLD	2.35E-06	**2.35E-06**
2. Average Release Rate	uCi/sec	<LLD	<LLD	<LLD	2.96E-07	7.45E-08
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	<LLD	1.70E-07	<LLD	<LLD	**1.70E-07**
2. Average Release Rate	uCi/sec	<LLD	2.16E-08	<LLD	<LLD	5.39E-09
3. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	**<LLD**
D. Tritium Releases						
1. Total Release Activity	Ci	3.16E+01	1.17E+01	2.43E+00	1.11E+00	**4.68E+01**
2. Average Release Rate	uCi/sec	4.06E+00	1.49E+00	3.06E-01	1.40E-01	1.48E+00
E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.						
1. Total Release Activity	Ci	3.16E+01	1.17E+01	2.43E+00	1.11E+00	**4.68E+01**

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

Table 1.1-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2001
GAS RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	**Total**
A. Fission and Activation Gas Releases						
1. Total Release Activity	Ci	9.04E-02	8.43E-02	8.85E-02	1.17E-01	**3.80E-01**
2. Average Release Rate	uCi/sec	1.16E-02	1.07E-02	1.11E-02	1.47E-02	**1.21E-02**
B. Iodine Releases						
1. Total I-131 Activity	Ci	<LLD	<LLD	<LLD	<LLD	**<LLD**
2. Average Release Rate	uCi/sec	<LLD	<LLD	<LLD	<LLD	**<LLD**
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	1.26E-06	<LLD	<LLD	4.85E-05	**4.98E-05**
2. Average Release Rate	uCi/sec	1.62E-07	<LLD	<LLD	6.10E-06	**1.58E-06**
3. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	**<LLD**
D. Tritium Releases						
1. Total Release Activity	Ci	3.52E+00	7.56E+00	2.25E+00	2.62E-02	**1.34E+01**
2. Average Release Rate	uCi/sec	4.53E-01	9.62E-01	2.83E-01	3.30E-03	**4.24E-01**
E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.						
1. Total Release Activity	Ci	3.52E+00	7.56E+00	2.25E+00	2.62E-02	**1.34E+01**

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

Table 1.2-1

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2001
LIQUID RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
A. Fission and Activation Products						
1. Total Activity Released	Ci	4.58E-03	2.19E-02	1.30E-02	1.60E-02	**5.55E-02**
2. Average Concentration Released	uCi/ml	1.67E-09	9.35E-09	4.57E-09	5.37E-09	5.09E-09
B. Tritium						
1. Total Activity Released	Ci	1.03E+02	3.42E+02	5.12E+02	4.16E+02	**1.37E+03**
2. Average Concentration Released	uCi/ml	3.74E-05	1.46E-04	1.80E-04	1.40E-04	1.26E-04
3. % of Limit (1E-3 uCi/ml)	%	3.74E+00	1.46E+01	1.80E+01	1.40E+01	1.26E+01
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	8.38E-05	2.96E-04	2.43E-03	5.85E-04	**3.39E-03**
2. Average Concentration Released	uCi/ml	3.05E-11	1.26E-10	8.55E-10	1.96E-10	3.11E-10
3. % of Limit (2E-4 uCi/ml)	%	1.53E-05	6.30E-05	4.28E-04	9.80E-05	1.56E-04
D. Gross Alpha						
1. Total Activity Released	Ci	1.85E-05	<LLD	<LLD	<LLD	**1.85E-05**
2. Average Concentration Released	uCi/ml	6.73E-12	<LLD	<LLD	<LLD	1.70E-12
E. Volume of Releases						
1. Volume of Liquid Waste to Discharge	liters	7.25E+05	1.06E+06	2.52E+06	1.87E+06	**6.18E+06**
2. Volume of Dilution Water	liters	2.75E+09	2.34E+09	2.84E+09	2.98E+09	**1.09E+10**

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

Table 1.2-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2001
LIQUID RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
A. Fission and Activation Products						
1. Total Activity Released	Ci	4.58E-03	2.19E-02	1.30E-02	1.60E-02	**5.55E-02**
2. Average Concentration Released	uCi/ml	1.67E-09	9.35E-09	4.57E-09	5.37E-09	5.09E-09
B. Tritium						
1. Total Activity Released	Ci	1.03E+02	3.42E+02	5.12E+02	4.16E+02	**1.37E+03**
2. Average Concentration Released	uCi/ml	3.74E-05	1.46E-04	1.80E-04	1.40E-04	1.26E-04
3. % of Limit (1E-3 uCi/ml)	%	3.74E+00	1.46E+01	1.80E+01	1.40E+01	1.26E+01
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	8.38E-05	2.96E-04	2.43E-03	5.85E-04	**3.39E-03**
2. Average Concentration Released	uCi/ml	3.05E-11	1.26E-10	8.55E-10	1.96E-10	3.11E-10
3. % of Limit (2E-4 uCi/ml)	%	1.53E-05	6.30E-05	4.28E-04	9.80E-05	1.56E-04
D. Gross Alpha						
1. Total Activity Released	Ci	1.85E-05	<LLD	<LLD	<LLD	**1.85E-05**
2. Average Concentration Released	uCi/ml	6.73E-12	<LLD	<LLD	<LLD	1.70E-12
E. Volume of Releases						
1. Volume of Liquid Waste to Discharge	liters	7.25E+05	1.06E+06	2.52E+06	1.87E+06	**6.18E+06**
2. Volume of Dilution Water	liters	2.75E+09	2.34E+09	2.84E+09	2.98E+09	**1.09E+10**

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

Figure 3.1-1

Estimated Cumulative Gamma Dose (in mrem)
from the Braidwood Station for the period
January-December 2001

Isopleth Labels
Small figure - multiply by 10^{-7}
Large figure - multiply by 10^{-7}

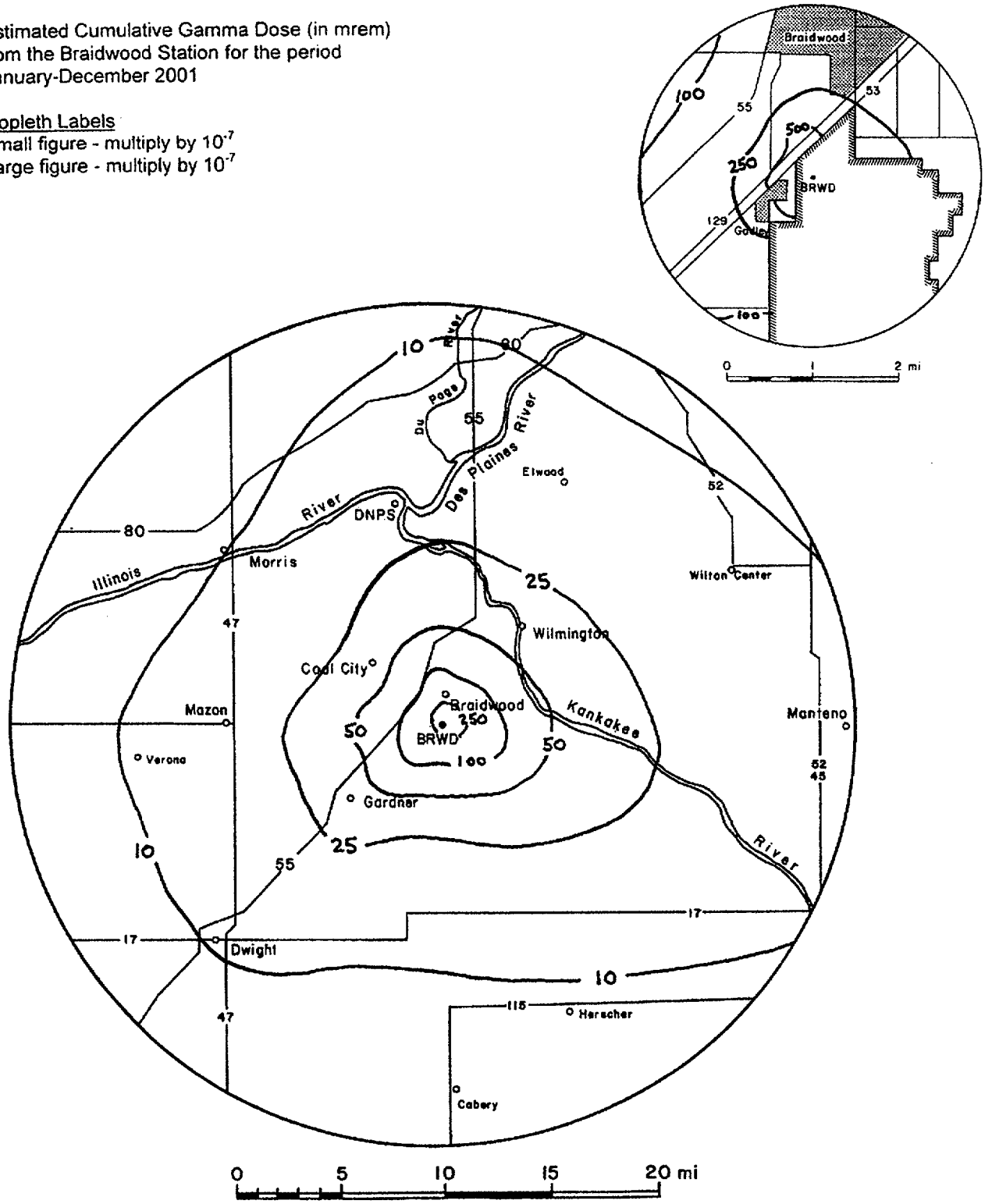


Figure 3.1-2

Estimated Total Concentrations (in pCi/m3)
of Noble Gases from the Braidwood Station
for the period January-December 2001

Isopleth Labels
Small figure - multiply by 10^{-4}
Large figure - multiply by 10^{-4}

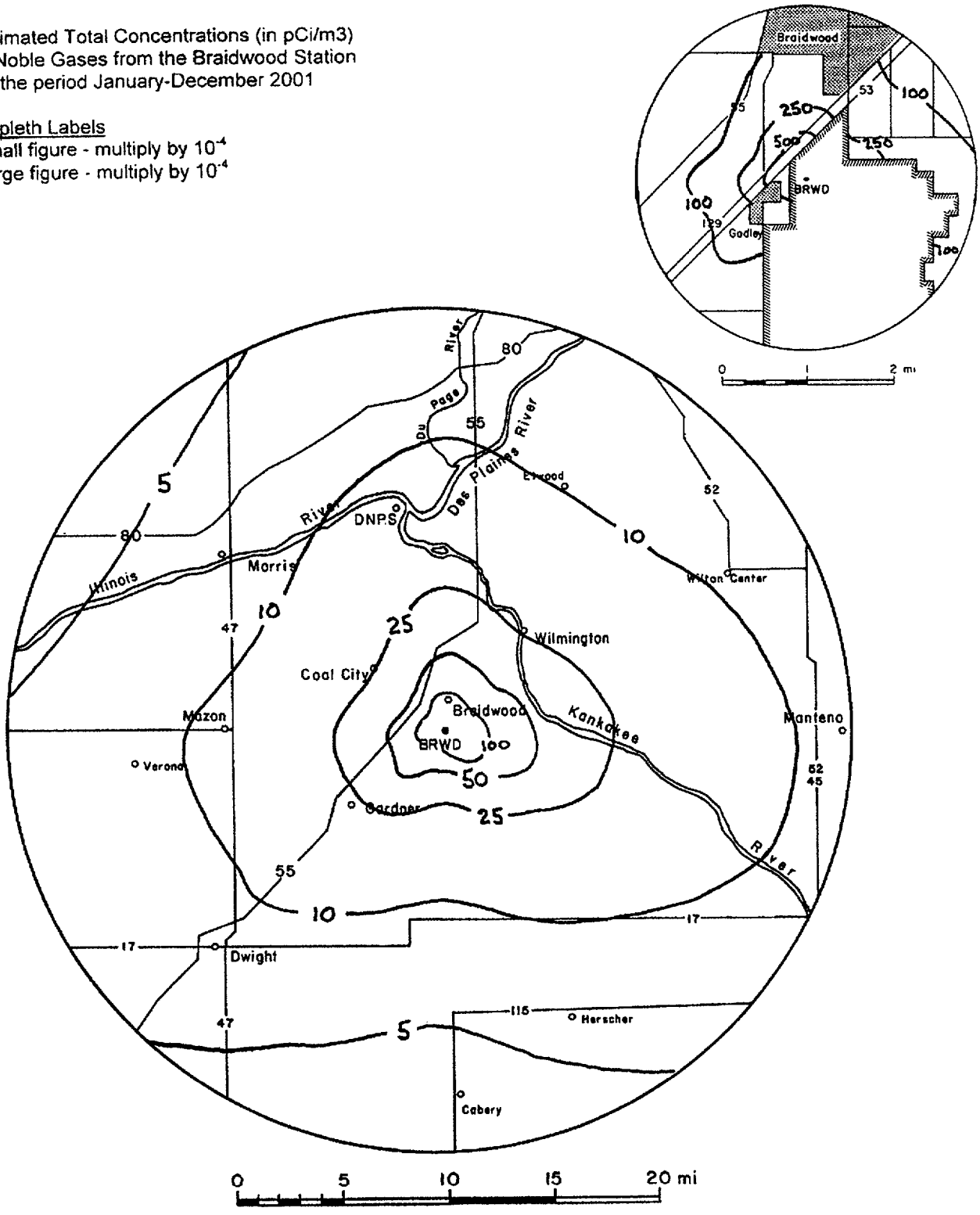


Figure 3.1-3

Estimated Total Concentrations (in pCi/m3)
of Iodines from the Braidwood Station for
the period January-December 2001

Isopleth Labels
Small figure - multiply by 10^{-9}
Large figure - multiply by 10^{-10}

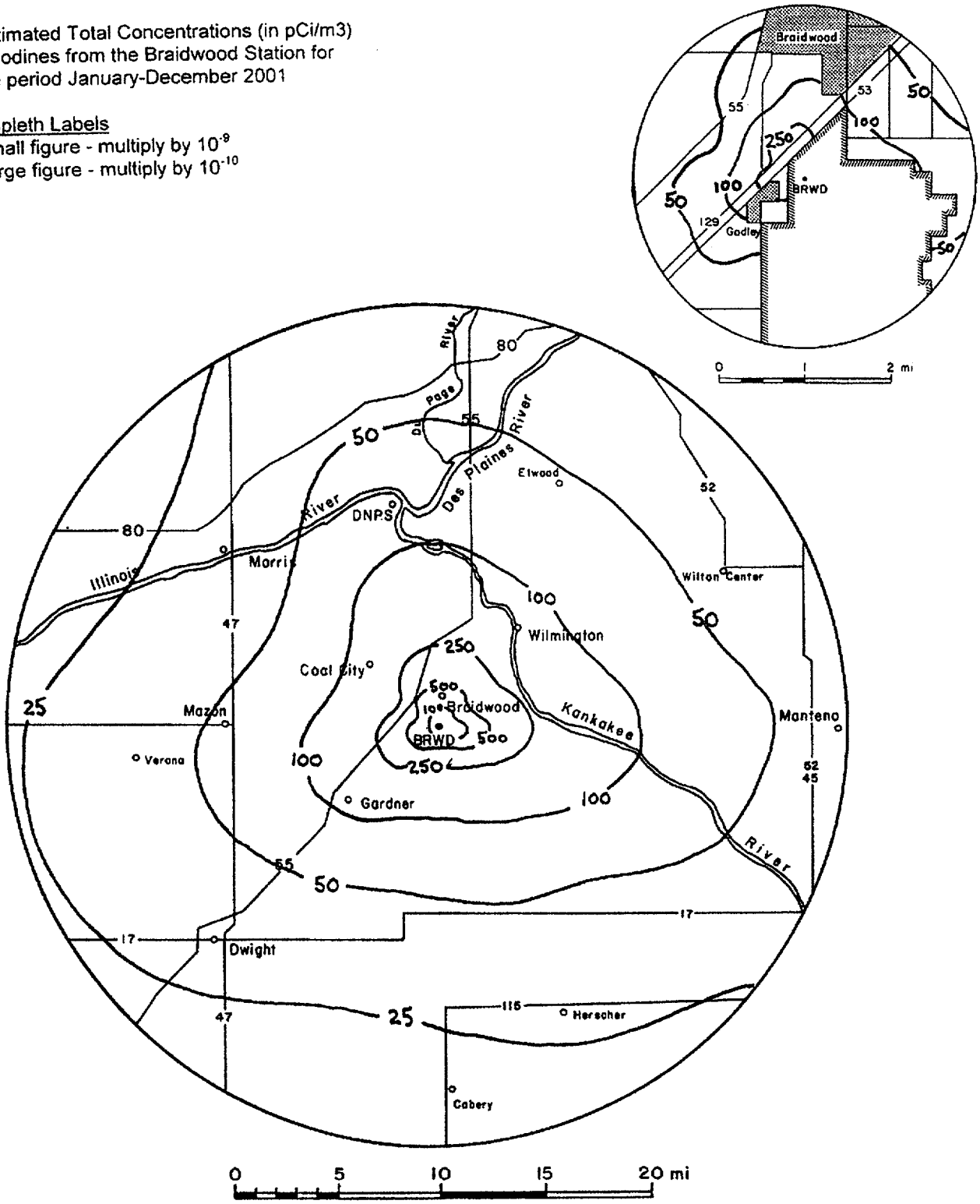


Figure 3.1-4

Estimated Total Concentrations (in pCi/m3)
of Particulates from the Braidwood Station
for the period January-December 2001

Isopleth Labels
Small figure - multiply by 10^{-2}
Large figure - multiply by 10^{-3}

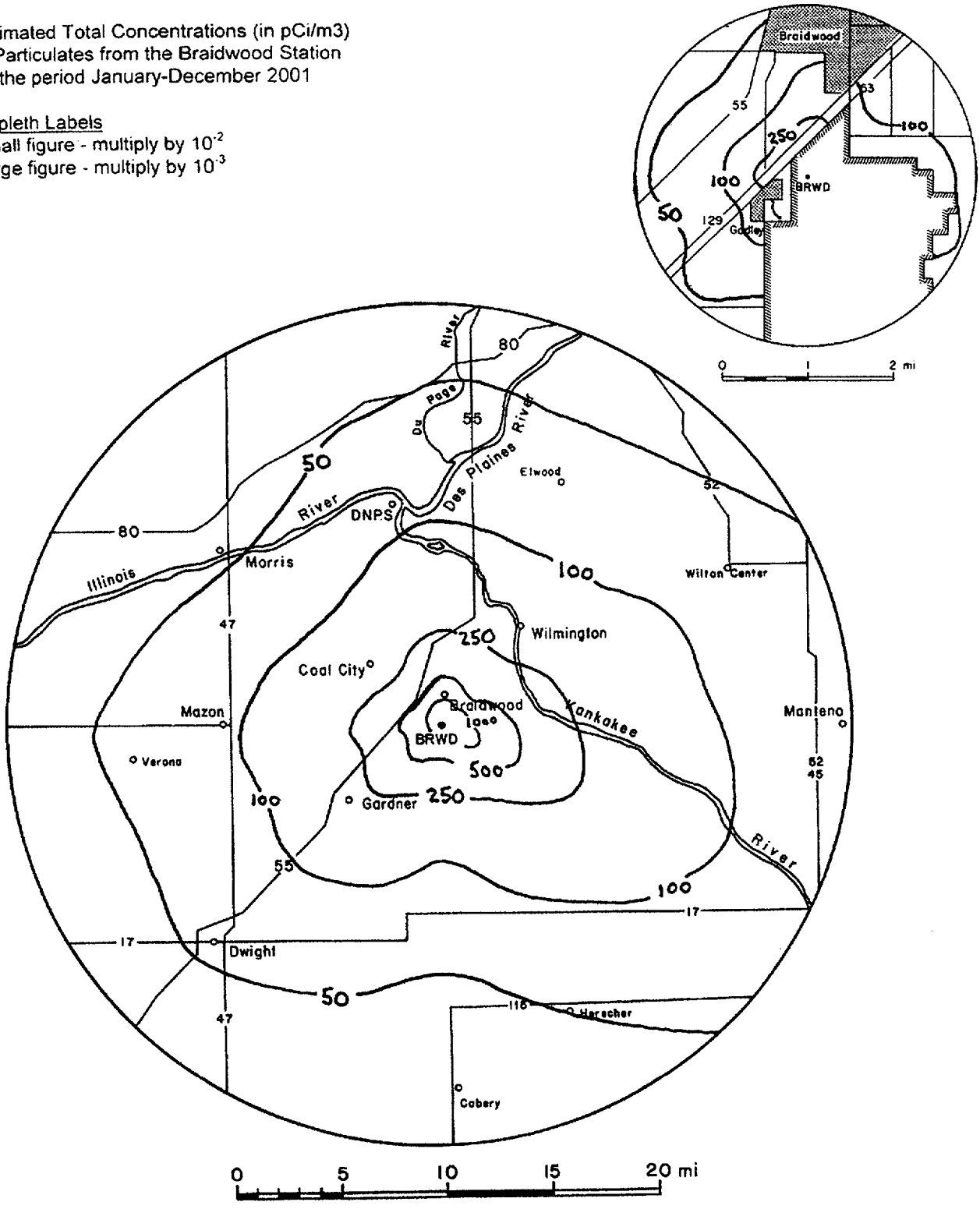


Table 3.1-1

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.13E-05 (N)	1.19E-05 (N)	1.28E-05 (N)	6.12E-06 (N)	4.21E-05 (N)
BETA AIR (MRAD)	8.79E-06 (N)	9.41E-06 (N)	1.07E-05 (N)	5.04E-06 (N)	3.40E-05 (N)
TOT. BODY (MREM)	8.49E-06 (N)	8.97E-06 (N)	9.60E-06 (N)	4.60E-06 (N)	3.17E-05 (N)
SKIN (MREM)	1.57E-05 (N)	1.66E-05 (N)	1.79E-05 (N)	8.54E-06 (N)	5.87E-05 (N)
ORGAN (MREM)	5.90E-03 (N)	2.20E-03 (N)	4.57E-04 (N)	2.21E-04 (N)	8.78E-03 (N)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % 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	0.08	0.03	0.01	0.00	15.0	0.06
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.13E-05 (N)	1.19E-05 (N)	1.28E-05 (N)	6.12E-06 (N)	4.21E-05 (N)
BETA AIR (MRAD)	8.79E-06 (N)	9.41E-06 (N)	1.07E-05 (N)	5.04E-06 (N)	3.40E-05 (N)
TOT. BODY (MREM)	8.49E-06 (N)	8.97E-06 (N)	9.60E-06 (N)	4.60E-06 (N)	3.17E-05 (N)
SKIN (MREM)	1.57E-05 (N)	1.66E-05 (N)	1.79E-05 (N)	8.54E-06 (N)	5.87E-05 (N)
ORGAN (MREM)	6.27E-03 (N)	6.00E-02 (N)	1.79E-02 (N)	7.69E-03 (N)	9.19E-02 (N)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
CHILD RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % 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	0.08	0.80	0.24	0.10	15.0	0.61
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.13E-05 (N)	1.19E-05 (N)	1.28E-05 (N)	6.12E-06 (N)	4.21E-05 (N)
BETA AIR (MRAD)	8.79E-06 (N)	9.41E-06 (N)	1.07E-05 (N)	5.04E-06 (N)	3.40E-05 (N)
TOT. BODY (MREM)	8.49E-06 (N)	8.97E-06 (N)	9.60E-06 (N)	4.60E-06 (N)	3.17E-05 (N)
SKIN (MREM)	1.57E-05 (N)	1.66E-05 (N)	1.79E-05 (N)	8.54E-06 (N)	5.87E-05 (N)
ORGAN (MREM)	4.93E-03 (N)	3.91E-02 (N)	1.16E-02 (N)	4.99E-03 (N)	6.06E-02 (N)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
TEENAGER RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % 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	0.07	0.52	0.16	0.07	15.0	0.40
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	1.13E-05	1.19E-05	1.28E-05	6.12E-06	4.21E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
BETA AIR	8.79E-06	9.41E-06	1.07E-05	5.04E-06	3.40E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
TOT. BODY	8.49E-06	8.97E-06	9.60E-06	4.60E-06	3.17E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
SKIN	1.57E-05	1.66E-05	1.79E-05	8.54E-06	5.87E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
ORGAN	6.39E-03	3.45E-02	1.02E-02	4.41E-03	5.45E-02
(MREM)	(NE)	(N)	(N)	(N)	(N)
	LIVER	LIVER	THYROID	THYROID	THYROID
	THYROID	THYROID			
	KIDNEY	KIDNEY			
	LUNG	LUNG			
	GI_LLI	GI_LLI			

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % 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	0.09	0.46	0.14	0.06	15.0	0.36
		LIVER	LIVER	THYROID	THYROID		THYROID
		THYROID	THYROID				
		KIDNEY	KIDNEY				
		LUNG	LUNG				
		GI_LLI	GI_LLI				

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	8.09E-06	8.67E-06	1.02E-05	1.38E-05	4.07E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
BETA AIR	7.42E-06	7.45E-06	8.35E-06	1.12E-05	3.44E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
TOT. BODY	6.07E-06	6.51E-06	7.64E-06	1.03E-05	3.06E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
SKIN	1.15E-05	1.22E-05	1.42E-05	1.92E-05	5.71E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
ORGAN	6.57E-04	1.42E-03	4.23E-04	1.59E-05	2.52E-03
(MREM)	(N)	(N)	(N)	(N)	(N)
	LIVER	LIVER	LIVER	LUNG	LUNG
	THYROID	THYROID	THYROID		
	KIDNEY	KIDNEY	KIDNEY		
	LUNG	LUNG	LUNG		
	GI_LLI	GI_LLI	GI_LLI		

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % 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	0.01	0.02	0.01	0.00	15.0	0.02
		LIVER	LIVER	LIVER	LUNG		LUNG
		THYROID	THYROID	THYROID			
		KIDNEY	KIDNEY	KIDNEY			
		LUNG	LUNG	LUNG			
		GI_LLI	GI_LLI	GI_LLI			

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	8.09E-06 (N)	8.67E-06 (N)	1.02E-05 (N)	1.38E-05 (N)	4.07E-05 (N)
BETA AIR (MRAD)	7.42E-06 (N)	7.45E-06 (N)	8.35E-06 (N)	1.12E-05 (N)	3.44E-05 (N)
TOT. BODY (MREM)	6.07E-06 (N)	6.51E-06 (N)	7.64E-06 (N)	1.03E-05 (N)	3.06E-05 (N)
SKIN (MREM)	1.15E-05 (N)	1.22E-05 (N)	1.42E-05 (N)	1.92E-05 (N)	5.71E-05 (N)
ORGAN (MREM)	6.99E-04 (N)	5.55E-02 (N)	1.66E-02 (N)	3.46E-05 (N)	7.29E-02 (N)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG	LUNG

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
CHILD RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % 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	0.01	0.74	0.22	0.00	15.0	0.49
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG		LUNG

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	8.09E-06 (N)	8.67E-06 (N)	1.02E-05 (N)	1.38E-05 (N)	4.07E-05 (N)
BETA AIR (MRAD)	7.42E-06 (N)	7.45E-06 (N)	8.35E-06 (N)	1.12E-05 (N)	3.44E-05 (N)
TOT. BODY (MREM)	6.07E-06 (N)	6.51E-06 (N)	7.64E-06 (N)	1.03E-05 (N)	3.06E-05 (N)
SKIN (MREM)	1.15E-05 (N)	1.22E-05 (N)	1.42E-05 (N)	1.92E-05 (N)	5.71E-05 (N)
ORGAN (MREM)	5.49E-04 (N)	3.61E-02 (N)	1.08E-02 (N)	2.76E-05 (N)	4.74E-02 (N)
	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG	LUNG

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
TEENAGER RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % 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	0.01	0.48	0.14	0.00	15.0	0.32
		LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LIVER THYROID KIDNEY LUNG GI_LLI	LUNG		LUNG

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	8.09E-06	8.67E-06	1.02E-05	1.38E-05	4.07E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
BETA AIR	7.42E-06	7.45E-06	8.35E-06	1.12E-05	3.44E-05
(MRAD)	(N)	(N)	(N)	(N)	(N)
TOT. BODY	6.07E-06	6.51E-06	7.64E-06	1.03E-05	3.06E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
SKIN	1.15E-05	1.22E-05	1.42E-05	1.92E-05	5.71E-05
(MREM)	(N)	(N)	(N)	(N)	(N)
ORGAN	7.12E-04	3.18E-02	9.50E-03	2.57E-05	4.19E-02
(MREM)	(NE)	(N)	(N)	(N)	(N)
	LIVER	LIVER	LIVER	LUNG	LUNG
	THYROID	THYROID	THYROID		
	KIDNEY	KIDNEY	KIDNEY		
	LUNG	LUNG	LUNG		
	GI_LLI	GI_LLI	GI_LLI		

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10CFR 50 APP. I
ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % 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	0.01	0.42	0.13	0.00	15.0	0.28
		LIVER	LIVER	LIVER	LUNG		LUNG
		THYROID	THYROID	THYROID			
		KIDNEY	KIDNEY	KIDNEY			
		LUNG	LUNG	LUNG			
		GI_LLI	GI_LLI	GI_LLI			

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	1.18E-02	3.93E-02	5.85E-02	4.77E-02	1.57E-01
INTERNAL ORGAN	1.18E-02	3.93E-02	5.85E-02	4.77E-02	1.57E-01
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

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	0.79	2.62	3.90	3.18	3.0	5.24
CRIT. ORGAN (MREM)	5.0	0.24	0.79	1.17	0.95	10.0	1.57
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	1.19E-02	3.97E-02	5.91E-02	4.81E-02	1.59E-01
INTERNAL ORGAN	1.20E-02	3.98E-02	5.93E-02	4.82E-02	1.59E-01
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
		---------- % OF APP I. ----------					
TOTAL BODY (MREM)	1.5	0.79	2.64	3.94	3.21	3.0	5.29
CRIT. ORGAN(MREM)	5.0	0.24	0.80	1.19	0.96	10.0	1.59
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	6.27E-03	2.08E-02	3.11E-02	2.52E-02	8.33E-02
INTERNAL ORGAN	6.30E-03	2.13E-02	3.12E-02	2.54E-02	8.40E-02
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.42	1.39	2.07	1.68	3.0	2.78
CRIT. ORGAN(MREM)	5.0	0.13	0.43	0.62	0.51	10.0	0.84
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT ONE

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	4.54E-03	1.50E-02	2.25E-02	1.82E-02	6.02E-02
INTERNAL ORGAN	4.56E-03	1.55E-02	2.26E-02	1.84E-02	6.09E-02
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.30	1.00	1.50	1.21	3.0	2.01
CRIT. ORGAN (MREM)	5.0	0.09	0.31	0.45	0.37	10.0	0.61
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	1.18E-02	3.93E-02	5.85E-02	4.77E-02	1.57E-01
INTERNAL ORGAN	1.18E-02	3.93E-02	5.85E-02	4.77E-02	1.57E-01
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
		---------- % OF APP I. ----------					
TOTAL BODY (MREM)	1.5	0.79	2.62	3.90	3.18	3.0	5.24
CRIT. ORGAN(MREM)	5.0	0.24	0.79	1.17	0.95	10.0	1.57
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	1.19E-02	3.97E-02	5.91E-02	4.81E-02	1.59E-01
INTERNAL ORGAN	1.20E-02	3.98E-02	5.93E-02	4.82E-02	1.59E-01
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.79	2.64	3.94	3.21	3.0	5.29
CRIT. ORGAN(MREM)	5.0	0.24	0.80	1.19	0.96	10.0	1.59
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	6.27E-03	2.08E-02	3.11E-02	2.52E-02	8.33E-02
INTERNAL ORGAN	6.30E-03	2.13E-02	3.12E-02	2.54E-02	8.40E-02
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.42	1.39	2.07	1.68	3.0	2.78
CRIT. ORGAN (MREM)	5.0	0.13	0.43	0.62	0.51	10.0	0.84
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2001
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/01 TO 12/31/01 CALCULATED 04/11/02
ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	4.54E-03	1.50E-02	2.25E-02	1.82E-02	6.02E-02
INTERNAL ORGAN	4.56E-03	1.55E-02	2.26E-02	1.84E-02	6.09E-02
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2001

COMPLIANCE STATUS - 10 CFR 50 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
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.30	1.00	1.50	1.21	3.0	2.01
CRIT. ORGAN(MREM)	5.0	0.09	0.31	0.45	0.37	10.0	0.61
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1

BRAIDWOOD STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/11/02

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

Total Effective Dose Eqivalent, mrem/yr 7.27E-02

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

% of limit 0.07

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	7.59E-03	3.11E-02	2.02E-02	1.39E-02	0.07

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/11/02

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	3.17E-05		
	Skyshine	0.00E+00		
	Ground	8.35E-08		
	Total	3.17E-05	25.0	0.00
Organ Dose (CDE)	Thyroid	7.24E-02	75.0	0.10
	Gonads	7.26E-02	25.0	0.29
	Breast	7.24E-02	25.0	0.29
	Lung	7.24E-02	25.0	0.29
	Marrow	7.26E-02	25.0	0.29
	Bone	7.38E-02	25.0	0.30
	Remainder	7.30E-02	25.0	0.29
	CEDE	7.27E-02		
	TEDE	7.27E-02	100.0	0.07

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/11/02

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

Total Effective Dose Eqivalent,	mrem/yr	6.35E-02
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	0.06

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	3.35E-03	2.92E-02	1.97E-02	1.12E-02	0.06

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/11/02

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	3.06E-05		
	Skyshine	0.00E+00		
	Ground	9.84E-06		
	Total	4.04E-05	25.0	0.00
Organ Dose (CDE)	Thyroid	6.31E-02	75.0	0.08
	Gonads	6.33E-02	25.0	0.25
	Breast	6.32E-02	25.0	0.25
	Lung	6.31E-02	25.0	0.25
	Marrow	6.33E-02	25.0	0.25
	Bone	6.45E-02	25.0	0.26
	Remainder	6.37E-02	25.0	0.25
	CEDE	6.34E-02		
	TEDE	6.35E-02	100.0	0.06

RESULTS BASED UPON: ODCM ANNEX REVISION 2 DECEMBER 1996
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.4-1

BRAIDWOOD STATION - UNIT 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE October 1 - December 31 YEAR 2001

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	6.960E-06(N)	6.960E-06(N)	1.670E-05(W)	1.520E-05(N)	9.800E-06(ENE)	3.905E-05(NNW)
BETA AIR (mrad)	5.570E-06(N)	5.570E-06(N)	1.230E-05(W)	9.980E-06(N)	5.270E-06(WNW)	2.504E-05(W)
WHOLE BODY (mrem)	3.490E-06(NNW)	3.490E-06(NNW)	9.700E-06(SW)	7.920E-06(SW)	4.260E-06(E)	2.317E-05(SW)
SKIN (mrem)	8.590E-06(NNW)	8.590E-06(NNW)	2.470E-05(W)	1.940E-05(SW)	1.020E-05(E)	5.755E-05(SW)
ORGAN (mrem)	5.690E-05(N)	5.690E-05(N)	1.360E-04(W)	5.480E-04(N)	8.780E-04(WNW)	1.299E-03(WNW)
CRITICAL PERS-ORG	TA-TH	TA-TH	TA-LV	TA-LV	TA-LV	TA-TH

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP I QUARTERLY OBJECTIVE	% OF APP I	10 CFR 50 APP I YEARLY OBJECTIVE	% OF APP I
GAMMA AIR (mrad)	5.0	.00	10.0	00
BETA AIR (mrad)	10.0	.00	20.0	00
WHOLE BODY (mrem)	2.5	00	5.0	00
SKIN (mrem)	7.5	.00	15.0	00
ORGAN (mrem)	7.5	.00	15.0	.01
CRITICAL PERSON-ORGAN		(TA-TH)		(TA-TH)

CRITICAL ORGANS: BN=BONE, LV=LIVER, TB=TOTAL BODY, TH=THYROID, KD=KIDNEY, LN=LUNG, GI=GI-LLI
CRITICAL PERSON: AD=ADULT, TA=TEENAGER, CH=CHILD, IN=INFANT

Date of calculation: 3/19/2002

Table 3.4-1 (continued)

BRAIDWOOD STATION - UNIT 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE: October 1 - December 31 YEAR: 2001

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	1.570E-05(N)	1.570E-05(N)	1.350E-05(W)	1.100E-05(N)	7.000E-06(ENE)	3.948E-05(N)
BETA AIR (mrad)	1.240E-05(N)	1.240E-05(N)	1.040E-05(W)	7.870E-06(N)	4.440E-06(WNW)	2.778E-05(N)
WHOLE BODY (mrem)	1.600E-05(N)	1.600E-05(N)	7.830E-06(SW)	5.720E-06(SW)	3.040E-06(E)	2.763E-05(N)
SKIN (mrem)	2.840E-05(N)	2.840E-05(N)	2.000E-05(W)	1.410E-05(SW)	7.400E-06(E)	5.982E-05(NNW)
ORGAN (mrem)	3.870E-06(N)	3.870E-06(N)	1.260E-04(W)	3.540E-04(N)	9.500E-05(WNW)	4.742E-04(N)
CRITICAL PERS-ORG	TA-LN	TA-LN	TA-LV	TA-LV	TA-LV	TA-LN

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	.00	10.0	.00
BETA AIR (mrad)	10.0	.00	20.0	.00
WHOLE BODY (mrem)	2.5	.00	5.0	.00
SKIN (mrem)	7.5	.00	15.0	.00
ORGAN (mrem)	7.5	.00	15.0	.00
CRITICAL PERSON-ORGAN		(TA-LN)		(TA-LN)

CRITICAL ORGANS: BN=BONE. LV=LIVER. TB=TOTAL BODY. TH=THYROID. KD=KIDNEY. LN=LUNG. GI=GI-LLI
CRITICAL PERSON: AD=ADULT. TA=TEENAGER. CH=CHILD. IN=INFANT

Maximum Offsite Values (pCi/m3)	
Iodine	4.75E-07
Particulate Matter	5.33E+00
Data Recovery (priority parameters)	99.7%

Date of calculation: 3/19/2002

Figure 5.0-1

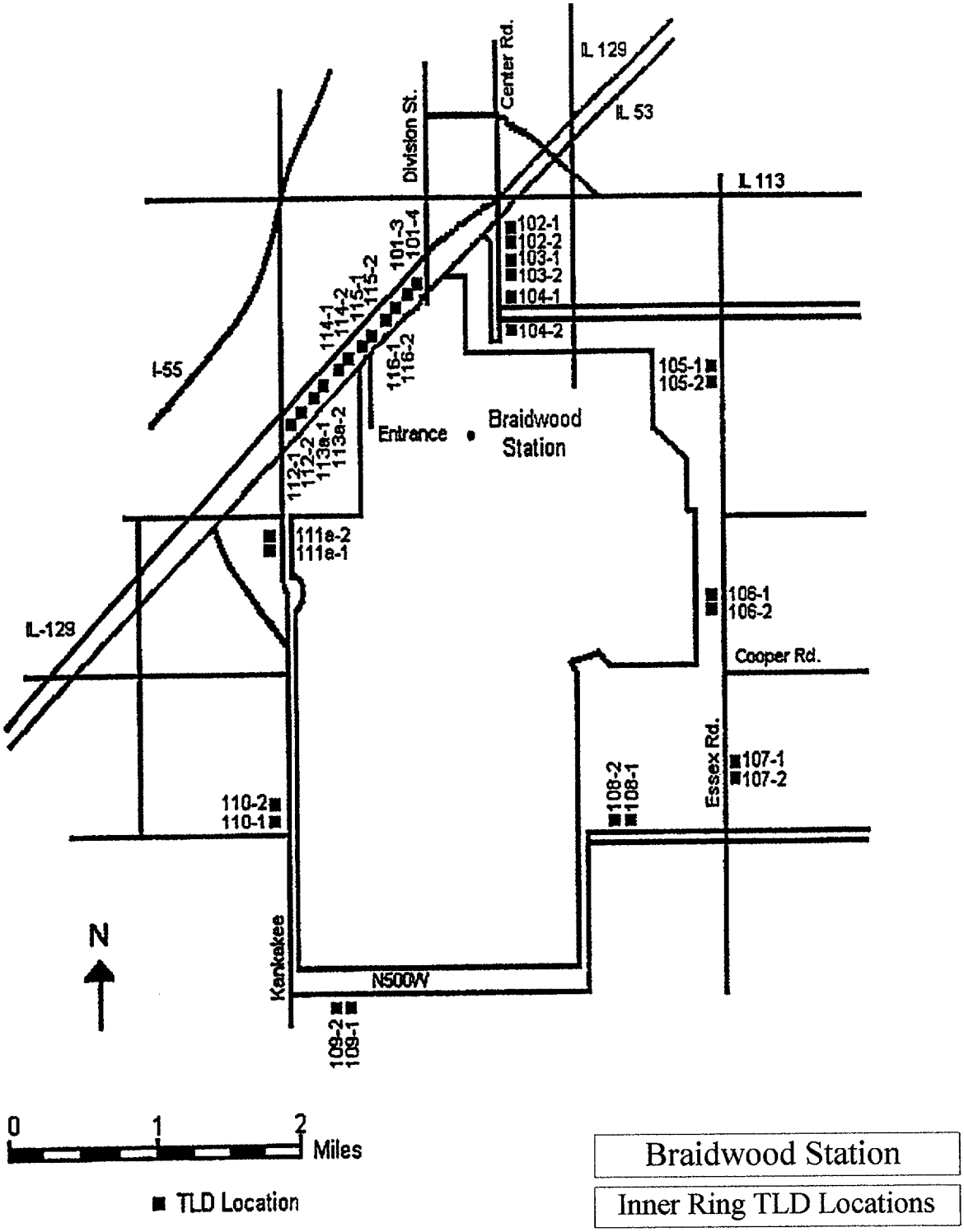

Center Rd.
IL 129
IL 53
Division St.
IL 113
102-1
102-2
103-1
103-2
104-1
104-2
101-3
101-4
114-1
114-2
115-1
115-2
116-1
116-2
I-55
105-1
105-2
Entrance
Braidwood Station
112-1
112-2
113a-1
113a-2
111a-2
111a-1
106-1
106-2
IL-129
Cooper Rd.
Essex Rd.
107-1
107-2
108-2
108-1
110-2
110-1
N
Kankakee
N500W
109-2
109-1
0
1
2
Miles
TLD Location
Braidwood Station
Inner Ring TLD Locations

Figure 5.0-2

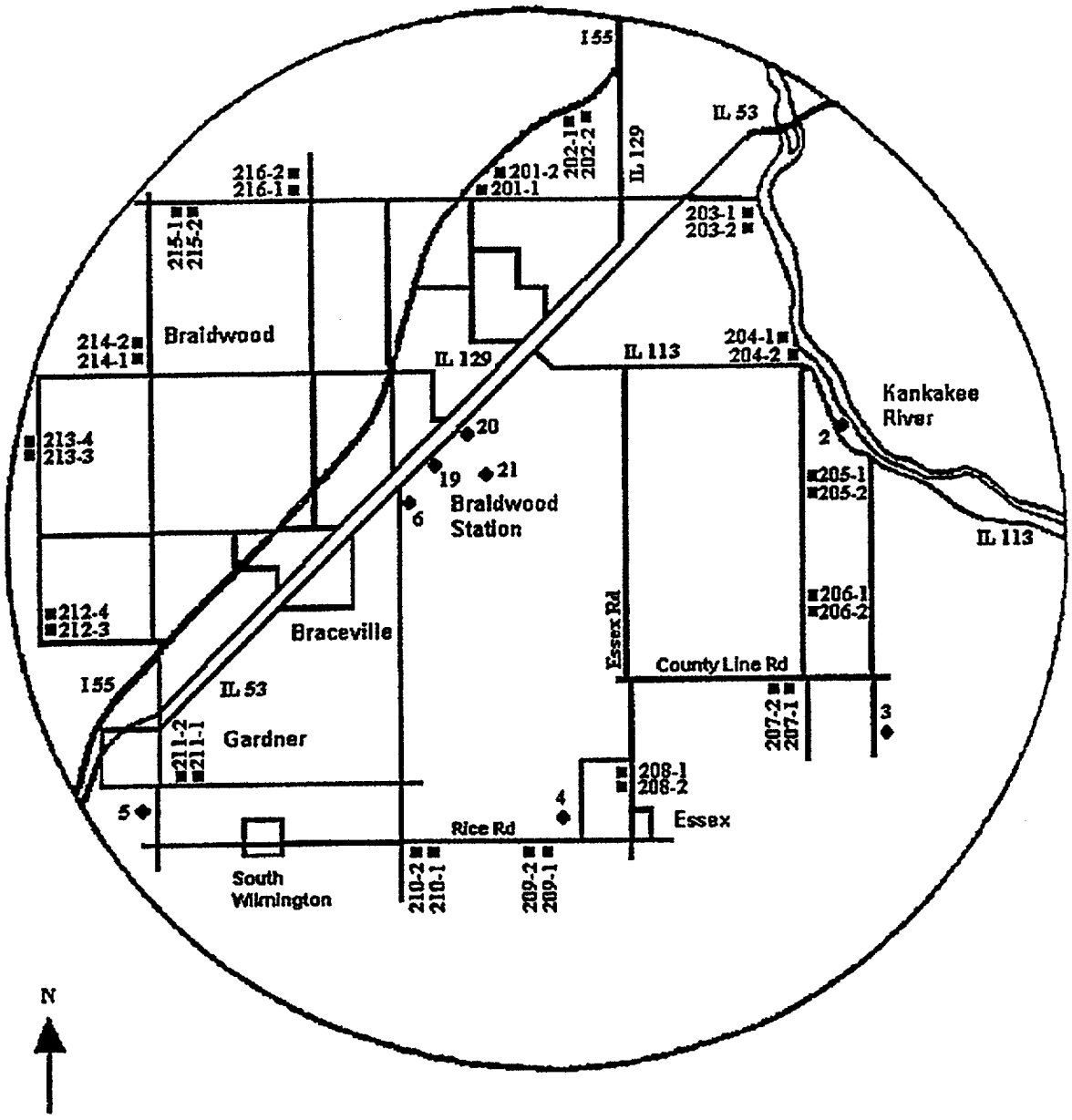
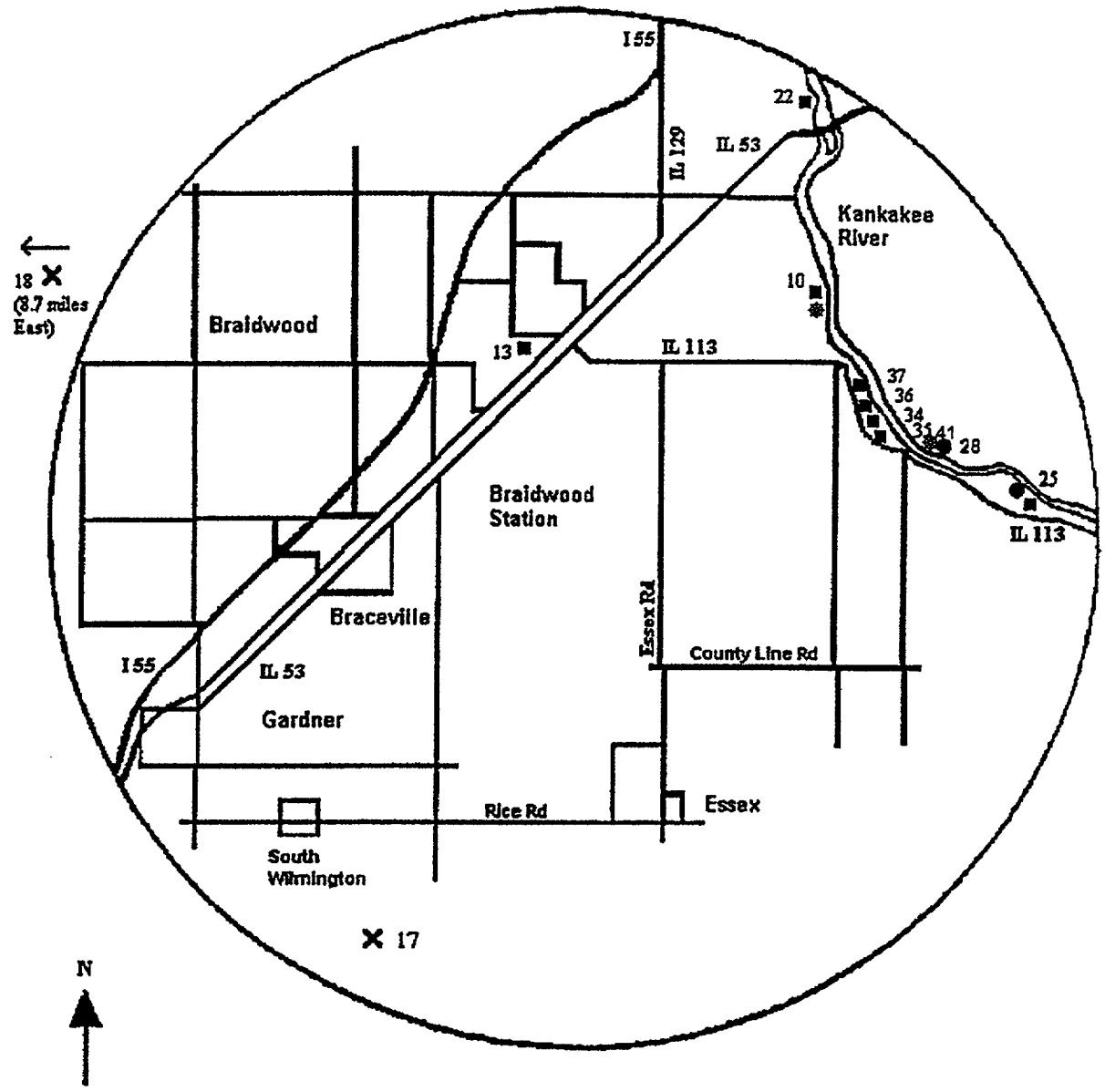

155
IL 53
IL 129
216-2
216-1
201-2
201-1
202-1
202-2
203-1
203-2
215-1
215-2
Braidwood
214-2
214-1
IL 129
IL 113
204-1
204-2
Kankakee
River
213-4
213-3
20
19
21
Braidwood
Station
6
2
205-1
205-2
IL 113
212-4
212-3
Braceville
Essex Rd
206-1
206-2
County Line Rd
155
IL 53
Gardner
211-2
211-1
207-2
207-1
3
208-1
208-2
5
4
Rice Rd
Essex
South
Wilmington
210-2
210-1
209-2
209-1
N
0
1
2
3
4
5
Miles
TLD Locations
Air Sampling Locations
Braidwood Station
Fixed Air Sampling
And
Outer Ring TLD Locations
BD-02 Custer Park
BD-03 County Line Road
BD-04 Essex
BD-05 Gardner
BD-06 Godley
BD-19 Nearsite NW
BD-20 Nearsite N
BD-21 Nearsite NE

Figure 5.0-3



Braidwood Station

Ingestion and Waterborne Exposure Pathway Sample Locations

BD-10	Kankakee River, Downstream
BD-13	Braidwood City Hall Well
BD-17	Halpin's Dairy
BD-18	Biros Farm
BD-22	Wilmington
BD-25	Kankakee River, Upstream
BD-28	Kankakee River, Discharge
BD-34	Gibson Well
BD-35	Joly Well
BD-36	Hutton Well
BD-37	Nurczyk
BD-41	Kankakee River, Downstream

TABLE 5.0-1

Braidwood Station Radiological Environmental Monitoring Locations	Air Sampling	TLD	Fish	Public Water	Milk	Sediments	Surface Water	Vegetables	Ground/Well Water
BD-02 Custer Park	✓	✓	.	.	.	.	.	.	.
BD-03 County Line Road	✓	✓	.	.	.	.	.	.	.
BD-04 Essex	✓	✓	.	.	.	.	.	.	.
BD-05 Gardner	✓	✓	.	.	.	.	.	.	.
BD-06 Godley	✓	✓	.	.	.	.	.	.	.
BD-10 Kankakee River, Downstream	.	.	.	.	.	✓	✓	.	.
BD-13 Braidwood City Hall Well	.	.	.	.	.	.	.	.	✓
BD-Quad 1	.	.	.	.	.	.	.	✓	.
BD-Quad 2	.	.	.	.	.	.	.	✓	.
BD-Quad 3	.	.	.	.	.	.	.	✓	.
BD-Quad 4	.	.	.	.	.	.	.	✓	.
BD-Control	.	.	.	.	.	.	.	✓	.
BD-17 Halpin's Dairy	.	.	.	.	✓	.	.	.	.
BD-18 Biros Farm	.	.	.	.	✓	.	.	.	.
BD-19 Nearsite NW	✓	✓	.	.	.	.	.	.	.
BD-20 Nearsite N	✓	✓	.	.	.	.	.	.	.
BD-21 Nearsite NE	✓	✓	.	.	.	.	.	.	.
BD-22 Wilmington	.	.	.	✓	.	.	.	.	.
BD-25 Kankakee River, Upstream	.	.	✓	.	.	.	✓	.	.
BD-28 Kankakee River, Discharge	.	.	✓	.	.	.	.	.	.
BD-34 Gibson Well	.	.	.	.	.	.	.	.	✓
BD-35 Joly Well	.	.	.	.	.	.	.	.	✓
BD-36 Hutton Well	.	.	.	.	.	.	.	.	✓
BD-37 Nurczyk Well	.	.	.	.	.	.	.	.	✓
BD-41 Kankakee River, Downstream	.	.	.	.	.	✓	.	.	.

CENSUS
Dairy
Residence
Cattle

TABLE 5.0-2

BRAIDWOOD STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

1. AIR SAMPLERS

Site Code[a]	Location	Distance (miles)	Direction	Sector
BD-02	Custer Park	5.0	E	E
BD-03 (C)	County Line Road	6.2	ESE	F
BD-04	Essex	4.8	SSE	H
BD-05	Gardner	5.5	SW	L
BD-06	Godley	0.5	WSW	M
BD-19	Nearsite NW	0.3	NW	Q
BD-20	Nearsite N	0.6	N	A
BD-21	Nearsite NE	0.5	NE	C

2. TLDs

a. Same as No. 1.

b. Special TLD Locations

Site Code	Distance (miles)	Direction	Sector
Inner Ring			
BD-101-3,4	0.5	N	A
BD-102-1,2	1.1	NNE	B
BD-103-1,2	1.0	NE	C
BD-104-1,2	0.7	ENE	D
BD-105-1,2	2.2	E	E
BD-106-1,2	2.5	ESE	F
BD-107-1,2	3.2	SE	G
BD-108-1,2	3.2	SSE	H
BD-109-1,2	3.8	S	J
BD-110-1,2	2.8	SSW	K
BD-111a-1,2	1.4	SW	L
BD-112-1,2	0.7	WSW	M
BD-113a-1,2	0.5	W	N
BD-114-1,2	0.4	WNW	P
BD-115-1,2	0.3	NW	Q
BD-116-1	0.4	NNW	R
BD-116-2	0.5	NNW	R

[a] Control (background) locations are denoted by a "C" after site code. All other locations are indicators.

TABLE 5.0-2 (continued)

BRAIDWOOD STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

2. TLDs

b. Special TLD Locations (continued)

Site Code Outer Ring	Distance (miles)	Direction	Sector
BD-201-1,2	4.2	N	A
BD-202-1,2	4.8	NNE	B
BD-203-1,2	4.9	NE	C
BD-204-1,2	4.3	ENE	D
BD-205-1,2	4.0	E	E
BD-206-1,2	4.5	ESE	F
BD-207-1,2	4.5	SE	G
BD-208-1,2	4.5	SSE	H
BD-209-1,2	4.8	S	J
BD-210-1,2	5.3	SSW	K
BD-211-1,2	4.8	SW	L
BD-212-3,4	5.0	WSW	M
BD-213-3,4	4.8	W	N
BD-214-1,2	4.3	WNW	P
BD-215-1,2	4.5	NW	Q
BD-216-1,2	4.0	NNW	R

3. MILK

Site Code[a]	Location	Distance (mile)	Direction	Sector
BD-17	Halpin's Dairy	5.5	SSW	K
BD-18 (C)	Biros Farm	8.7	W	N

4. VEGETABLES

Site Code[a]	Location	Distance (miles)	Direction	Sector
Quad 1	Clark Farm	3.8	ENE	D
Quad 2	W.F. Soltwisch	4.5	SSE	H
Quad 3	Terri Schultz	4.8	SSW	K
Quad 4	Bruce Sinkular	1.9	NNW	R
Control(C)	Gorman Farm	9.0	NE	C

[a] Control (background) locations are denoted by a "C" after site code. All other locations are indicators.

TABLE 5.0-2 (continued)

BRAIDWOOD STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

5. PUBLIC WATER

Site Code	Location	Distance (miles)	Direction	Sector
BD-22	Wilmington	6.0	NE	C

6. GROUND/WELL WATER

Site Code[a]	Location	Distance (miles)	Direction	Sector
BD-13	Braidwood City Hall Well	1.7	NNE	B
BD-34	Gibson Well	4.7	E	E
BD-35	Joly Well	4.7	E	E
BD-36	Hutton Well	4.7	E	E
BD-37	Nurczyk Well	4.7	E	E

7. SURFACE WATER

Site Code[a]	Location	Distance (miles)	Direction	Sector
BD-10	Kankakee River, Downstream	5.4	NE	C
BD-25 (C)	Kankakee River, Upstream	9.6	E	E

8. FISH

Site Code[a]	Location	Distance (miles)	Direction	Sector
BD-25 (C)	Kankakee River, Upstream	9.6	E	E
BD-28	Kankakee River, Discharge	5.4	E	E

9. SEDIMENTS

Site Code[a]	Location	Distance (miles)	Direction	Sector
BD-10	Kankakee River, Downstream	5.4	NE	C
BD-41	Kankakee River, Downstream	5.2	E	E

[a] Control (background) locations are denoted by a "C" after site code. All other locations are indicators.

TABLE 5.0-2 (continued)

BRAIDWOOD STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Site	Collection Frequency	Type of Analysis	Frequency of Analysis
1. Airborne Particulates	Onsite, Nearfield and Control		Filter exchange weekly	Gross Beta Gamma Isot.	Weekly Quarterly Composite (or if weekly gross beta in a sample exceeds 5X the average concentration of preceding calendar quarter).
	BD-03 (C)	County Line Road			
	BD-06	Godley			
	BD-19	Nearsite NW			
	BD-20	Nearsite N			
	BD-21	Nearsite NE			
	Far Field			Gamma Isot.	If gross beta in a sample exceeds 10 times the yearly mean of control samples and radioactivity is confirmed as having its origin in airborne effluents from station.
	BD-02	Custer Park			
	BD-04	Essex			
	BD-05	Gardner			
2. Airborne Iodine	Same as 1.		Canister exchange biweekly	I-131	Biweekly
3. Air Sampling Train	Same as 1.		-	Test and Maintenance	Weekly
4. TLDs	a. Same as 1. (two TLDs per location)		Quarterly	Gamma	Quarterly
	b. BD-101-3,4	Inner Ring			
	102-1,2				
	103-1,2				
	104-1,2				
	105-1,2				
	106-1,2				
	107-1,2				
	108-1,2				
	109-1,2				
	110-1,2				
	111a-1,2				
	112-1,2				
	113a-1,2				
	114-1,2				
	115-1,2				
	116-1,2				
	c. BD-201-1,2	Outer Ring			
	202-1,2				
	203-1,2				
	204-1,2				
	205-1,2				
	206-1,2				
	207-1,2				
	208-1,2				
	209-1,2				
	210-1,2				
	211-1,2				
	212-3,4				

[a] Control (background) locations are denoted by a "C" in this column. All other location are indicators.

TABLE 5.0-2 (continued)

BRAIDWOOD STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis
4. TLDs (continued)					
	Outer Ring				
	BD-213-3,4 214-1,2 215-1,2 216-1,2				
5. Milk	BD-17 BD-18 (C)	Halpin's Dairy Biros Farm	Biweekly: May-October Monthly: November-April	I-131 Gamma Isot.	Biweekly: May-October Monthly: November-April
6. Vegetables	Quad 1 Quad 2 Quad 3 Quad 4 Control	Clark Farm W.F. Soltwisch Terri Schultz Bruce Sinkular Gorman Farm	Annually - two varieties from each location as available at harvest.	Gamma Isot. I-131	Annually Annually, on broad leaf vegetation.
7. Public Water	BD-22	Wilmington	Weekly	Gross Beta Gamma Isot. Tritium	Monthly composite. Monthly composite. Monthly composite.
8. Ground/Well Water	BD-13 BD-34 BD-35 BD-36 BD-37	City Hall Gibson Well Joly Well Hutton Well Nurczyk Well	Quarterly	Gamma Isot. Tritium	Quarterly
9. Surface Water	BD-10 BD-25 (C)	Kankakee River, Downstream Kankakee River, Upstream	Weekly	Gross Beta Gamma Isot. Tritium	Monthly composite. Monthly composite. Quarterly composite.
10. Fish (at least two species)	BD-25 (C) BD-28	Kankakee River, Upstream Kankakee River, Discharge	Two times/year	Gamma Isot.	Two times/year on edible portions only.
11. Sediments	BD-10 BD-41	Kankakee River, Downstream Kankakee River, Downstream	Semiannually	Gamma Isot.	Semiannually
12. Land Use Census					
Milch Animals					
a.	Site Boundary to 2 miles		-	a. Enumeration by a door to door or equivalent counting technique.	Annually during grazing season.

[a] Control (background) locations are denoted by a "C" in this column. All other location are indicators.

TABLE 5.0-2 (continued)

BRAIDWOOD STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis
12. Land Use Census (continued)	b.	2 miles to 6.2 miles	-	b. Using referenced information from county agricultural agents or other reliable sources.	
	c.	At dairies listed in Item 5.	-	c. Inquire as to feeding practices: 1. Pasture only. 2. Feed and chop only. 3. Pasture and feed: if both, ask farmer to estimate fraction of food from pasture: <25%, 25-50%, 50-75%, or >75%.	Annually during grazing season.
Nearest Residence		In all sectors up to 6.2 miles.	-	-	Annually during grazing season.

[a] Control (background) locations are denoted by a "C" in this column. All other location are indicators.

Table 5.0-3

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 1st Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	65	0.01	0.028 (51/52) (0.015-0.046)	BD-20, Nearsite N 0.6 mi. N, Sector A	0.029 (13/13) (0.019-0.043)	0.028 (13/13) (0.015-0.043)	0
	Gamma Spec.	5			-	-		
	Cs-134		0.01	<LLD			<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	35	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	6	5	<LLD	-	-	<LLD	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Ba/La-140		15	<LLD	-	-	<LLD	0
	Other Gammas		10-15	<LLD	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	<LLD	BD-25, Kankakee River, Upstream, 9.6 mi. E, Sector E	6.3 (3/3) (5.6-6.9)	6.3 (3/3) (5.6-6.9)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	<LLD	-	-	<LLD	0
Well Water (pCi/L)	Tritium	5	200	355 (2/5) (305-404)	BD-36 Hutton Well, 4.7 mi. E, Sector E	404(1/1)	None	0
	Gamma Spec.	5						
	Cs-134		15	<LLD	-	-	None	0
	Cs-137		18	<LLD	-	-	None	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	None	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 5.0-3 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 1st Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Public Water (pCi/L)	Gross Beta 3	4	6.0 (2/3) (5.0-7.0)	BD-22, Wilmington, 6.0 mi NE, Sector C	6.0 (2/3) (5.0-7.0)	None	0
	Tritium 3	200	280 (1/3)	BD-22, Wilmington, 6.0 mi NE, Sector C	280 (1/3)	None	0
	Gamma Spec. 3						
	Cs-134	15	<LLD	-	-	None	0
	Cs-137	18	<LLD	-	-	None	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 80	9.7	19 (78/78) (15-24)	BD-201-1 4.2 mi N, Sector A	24 (1/1)	20 (2/2) (19-20)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 5.0-4

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY
Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 2nd Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 65	0.01	0.021 (49/52) (0.010-0.032)	BD-20, Nearsite N 0.6 mi N, Sector A	0.022 (12/13) (0.012-0.027)	0.022 (12/13) (0.013-0.030)	0
	Gamma Spec. 5						
	Cs-134	0.01	<LLD	-	-	<LLD	0
	Cs-137	0.01	<LLD	-	-	<LLD	0
	Other Gammas	0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 30	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131 12	0.5/5.0[b]	<LLD	-	-	<LLD	0
	Gamma Spec. 12						
	Cs-134	15	<LLD	-	-	<LLD	0
	Cs-137	18	<LLD	-	-	<LLD	0
	Ba/La-140	15	<LLD	-	-	<LLD	0
	Other Gammas	10-15	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec. 8						
	Cs-134	0.10	<LLD	-	-	<LLD	0
	Cs-137	0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas	0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas	0.20-0.30	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gamma Spec. 2						
	Cs-134	0.15	<LLD	-	-	None	0
	Cs-137	0.18	<LLD	-	-	None	0
	Other Gammas	0.10-0.60	<LLD	-	-	None	1

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

[b] 0.5 pCi/L (May-October); 5.0 pCi/L (November-April).

Table 5.0-4 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 2nd Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Surface Water (pCi/L)	Gross Beta 6	4	<LLD	BD-25, Kankakee River, Upstream 9.6 mi. E, Sector E	5.4 (3/3) (4.3-6.1)	5.4 (3/3) (4.3-6.1)	0
	Gamma Spec. 6						
	Cs-134	15	<LLD	-	-	<LLD	0
	Cs-137	18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	<LLD	0
	Tritium 2	200	<LLD	-	-	<LLD	0
Well Water (pCi/L)	Tritium 5	200	296 (2/5) (233-360)	BD-36 Hutton Well, 4.7 mi E, Sector E	360 (1/1)	None	0
	Gamma Spec. 5						
	Cs-134	15	<LLD	-	-	None	0
	Cs-137	18	<LLD	-	-	None	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	None	0
Public Water (pCi/L)	Gross Beta 3	4	<LLD	-	-	None	0
	Tritium 3	200	430 (3/3) (296-621)	BD-22, Wilmington, 6.0 mi NE, Sector C	430 (3/3) (296-621)	None	0
	Gamma Spec. 3						
	Cs-134	15	<LLD	-	-	None	0
	Cs-137	18	<LLD	-	-	None	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 80	9.7	20.7 (78/78) (17-26)	BD-201-1[b] 4.2 mi. N, Sector A	26 (1/1)	22.5 (2/2) (22-23)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

[b] Locations BD-201-1 and BD-211-1 had identical means of 26 mR. Only BD-201-1 is detailed in this summary.

Table 5.0-5

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 3rd Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	65	0.01	0.026 (51/52) (0.010-0.038)	BD-20, Nearsite, N 0.6 mi N, Sector A	0.028 (13/13) (0.019-0.038)	0.025 (13/13) (0.016-0.034)	0
	Gamma Spec.	5			-			
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	35	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	12	0.5	<LLD	-	-	<LLD	0
	Gamma Spec.	12						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Ba/La-140		15	<LLD	-	-	<LLD	0
	Other Gammas		10-15	<LLD	-	-	<LLD	0
Vegetation (pCi/g wet)	I-131	10	0.06	<LLD	-	-	<LLD	0
	Gamma Spec.	10						
	Cs-134		0.06	<LLD	-	-	<LLD	0
	Cs-137		0.08	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.10	<LLD	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	4.7 (1/3)	BD-25 Kankakee River, Upstream, 9.6 mi E, Sector E	5.3 (2/3) (4.7-5.8)	5.3 (2/3) (4.7-5.8)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	574 (1/1)	BD-10 Kankakee River, Downstream, 5.4 mi. NE, Sector C	574 (1/1)	<LLD	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 5.0-5 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 3rd Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Well Water (pCi/L)	Tritium 5	200	245 (2/5) (209-281)	BD-36 Hutton Well 4.7 mi. E, Sector E	281 (1/1)	None	0
	Gamma Spec. 5						
	Cs-134	15	<LLD	-	-	None	0
	Cs-137	18	<LLD	-	-	None	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	None	0
Public Water (pCi/L)	Gross Beta 3	4	<LLD	-	-	None	0
	Tritium 3	200	2,258 (3/3) (1,004-3,795)	BD-22, Wilmington, 6.0 mi NE, Sector C	2,258 (3/3) (1,004-3,795)	None	0
	Gamma Spec. 3						
	Cs-134	15	<LLD	-	-	None	0
	Cs-137	18	<LLD	-	-	None	0
	Other ODCM-Required Gammas	15-30	<LLD	-	-	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 80	9.7	19.1 (78/78) (15-23)	BD-109-1[b] 3.8 mi. S, Sector J	23 (1/1)	20 (2/2) (20-20)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

[b] Locations BD-109-1, 201-1 and 209-2 had identical means of 23 mR. Only BD-109-1 is detailed in this summary.

Table 5.0-6

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 4th Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 65	0.01	0.032 (52/52) (0.018-0.045)	BD-20, Nearsite N 0.6 mi. N, Sector A	0.034 (13/13) (0.020-0.044)	0.032 (13/13) (0.017-0.046)	0
	Gamma Spec. 5						
	Cs-134	0.01	<LLD	-	-	<LLD	0
	Cs-137	0.01	<LLD	-	-	<LLD	0
	Other Gammas	0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 30	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131 8	0.5/5.0[b]	<LLD	-	-	<LLD	0
	Gamma Spec. 8						
	Cs-134	15	<LLD	-	-	<LLD	0
	Cs-137	18	<LLD	-	-	<LLD	0
	Ba/La-140	15	<LLD	-	-	<LLD	0
	Other Gammas	10-15	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec. 10						
	Cs-134	0.10	<LLD	-	-	<LLD	0
	Cs-137	0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas	0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas	0.20-0.30	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gamma Spec. 2						
	Cs-134	0.15	<LLD	-	-	None	0
	Cs-137	0.18	<LLD	-	-	None	0
	Other Gammas	0.10-0.60	<LLD	-	-	None	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

[b] 0.5 pCi/l (May-October); 5.0 pCi/L (November-April).

Table 5.0-6 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Braidwood Nuclear Power Station Docket No. 50-456, 50-457
Location of Facility Will, Illinois Reporting Period 4th Quarter 2001
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Surface Water (pCi/L)	Gross Beta	6	4	5.3 (1/3)	BD-25, Kankakee River Upstream, 9.6 mi. E, Sector E	5.6 (3/3) (4.9-6.4)	5.6 (3/3) (4.9-6.4)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	<LLD	-	-	<LLD	0
Well Water (pCi/L)	Gamma Spec.	5						
	Cs-134		15	<LLD	-	-	None	0
	Cs-137		18	<LLD	-	-	None	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	None	0
	Tritium	5	200	372 (2/5) (278-465)	BD-36, Hutton Well, 4.7 mi. E, Sector E	465 (1/1)	None	0
Public Water (pCi/L)	Gross Beta	3	4	<LLD	-	-	None	0
	Gamma Spec.	3						
	Cs-134		15	<LLD	-	-	None	0
	Cs-137		18	<LLD	-	-	None	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	None	0
	Tritium	3	200	863 (2/3) (532-1,194)	BD-22, Wilmington, 6.0 mi NE, Sector C	863 (2/3) (532-1,194)	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	80	9.7	18.7 (78/78) (15-23)	BD-211-1 4.8 mi. SW, Sector L	23 (1/1)	19 (2/2) (19-19)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.

APPENDIX II

METEOROLOGICAL DATA

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	1	0	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	1	2	0	0	3
NW	0	0	0	3	4	0	7
NNW	0	0	0	0	1	0	1
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	2	5	5	0	12

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	1	2	0	3
SW	0	0	1	0	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	5	0	1	0	6
NW	0	0	0	1	1	1	3
NNW	0	0	0	3	1	0	4
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	6	5	5	1	17

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	1	2	1	0	4
NE	0	0	1	0	0	0	1
ENE	0	0	1	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	1	0	0	1
SSW	0	0	0	2	2	0	4
SW	0	0	0	0	0	0	0
WSW	0	0	1	1	0	0	2
W	0	0	2	2	0	0	4
WNW	0	1	4	3	2	0	10
NW	0	1	5	2	2	0	10
NNW	0	0	0	0	1	0	1
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	2	16	13	8	0	39

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - NEUTRAL (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	3	14	13	0	0	30
NNE	0	4	5	4	2	0	15
NE	0	4	11	1	0	0	16
ENE	0	9	6	1	0	0	16
E	0	3	7	1	0	0	11
ESE	0	4	8	5	0	1	18
SE	0	4	8	3	0	0	15
SSE	0	3	3	2	0	0	8
S	0	2	3	8	7	1	21
SSW	0	1	12	15	2	2	32
SW	0	7	24	15	3	0	49
WSW	2	4	29	20	2	1	58
W	1	18	12	7	1	5	44
WNW	0	10	31	19	6	2	68
NW	0	10	26	14	12	1	63
NNW	0	7	13	10	2	0	32
VARIABLE	0	0	0	0	0	0	0
TOTAL	3	93	212	138	37	13	496

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 4
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	3	30	14	0	0	47
NNE	3	8	22	6	9	0	48
NE	0	6	23	13	24	0	66
ENE	1	11	21	5	0	0	38
E	2	20	17	8	0	0	47
ESE	1	4	19	29	15	3	71
SE	0	4	11	18	7	4	44
SSE	0	4	26	19	11	3	63
S	0	6	26	24	19	18	93
SSW	1	4	21	26	35	11	98
SW	0	9	38	39	8	1	95
WSW	1	10	43	38	6	4	102
W	0	10	40	48	21	1	120
WNW	0	8	55	63	26	4	156
NW	2	17	37	65	34	4	159
NNW	3	6	42	39	1	0	91
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	130	471	454	216	53	1338

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 3
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	2	4	0	0	0	8
NNE	0	3	5	0	0	0	8
NE	0	4	8	1	0	0	13
ENE	0	3	2	0	0	0	5
E	0	2	4	0	0	0	6
ESE	0	1	3	6	0	0	10
SE	0	0	0	1	0	0	1
SSE	0	0	2	0	0	0	2
S	0	0	1	0	0	0	1
SSW	0	0	3	1	2	0	6
SW	0	0	1	7	7	0	15
WSW	1	2	4	6	0	0	13
W	0	4	13	7	2	0	26
WNW	0	6	19	20	0	0	45
NW	0	5	25	8	0	0	38
NNW	0	2	1	3	0	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	3	34	95	60	11	0	203

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2001

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	2	1	1	0	0	6
NNE	1	0	1	0	0	0	2
NE	0	0	1	2	0	0	3
ENE	0	2	0	0	0	0	2
E	0	0	1	0	0	0	1
ESE	0	0	0	3	0	0	3
SE	0	0	0	0	0	0	0
SSE	0	2	0	0	0	0	2
S	0	2	0	0	0	0	2
SSW	0	0	0	0	0	0	0
SW	1	3	0	0	0	0	4
WSW	0	0	0	0	0	0	0
W	0	0	1	2	0	0	3
WNW	0	0	5	4	0	0	9
NW	0	1	1	6	0	0	8
NNW	1	0	0	2	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	5	12	11	20	0	0	48

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	1	1	0	0	0	2
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	1	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	3	3	1	0	0	7
SSE	0	7	5	1	0	0	13
S	0	6	16	2	3	0	27
SSW	0	3	3	7	2	3	18
SW	0	1	5	2	2	0	10
WSW	0	0	1	0	2	1	4
W	0	0	3	5	0	0	8
WNW	0	0	3	9	0	0	12
NW	0	0	2	0	0	0	2
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	22	42	28	9	4	105

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	1	0	1	2	0	4
NNE	0	0	2	0	0	0	2
NE	0	1	0	2	0	0	3
ENE	0	1	0	0	0	0	1
E	0	0	0	4	0	0	4
ESE	0	0	1	1	0	0	2
SE	0	2	0	1	0	0	3
SSE	0	2	1	2	0	0	5
S	0	2	1	5	2	0	10
SSW	0	1	0	2	5	0	8
SW	0	1	1	2	4	0	8
WSW	0	0	0	2	3	0	5
W	0	0	0	0	0	0	0
WNW	0	2	4	5	1	2	14
NW	0	0	0	0	0	0	0
NNW	0	1	1	2	3	0	7
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	14	11	29	20	2	76

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	2	1	0	1	0	4
NNE	0	2	2	0	0	0	4
NE	0	1	2	4	1	0	8
ENE	0	0	1	1	0	0	2
E	0	0	3	4	0	0	7
ESE	1	1	4	0	0	0	6
SE	0	1	0	3	0	0	4
SSE	0	2	1	0	0	0	3
S	0	3	2	3	0	0	8
SSW	0	0	1	4	4	2	11
SW	0	1	1	4	4	0	10
WSW	0	2	1	3	1	0	7
W	0	0	4	3	0	1	8
WNW	0	0	2	4	2	1	9
NW	0	0	0	0	0	0	0
NNW	1	3	2	0	0	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	2	18	27	33	13	4	97

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - NEUTRAL (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	10	7	0	3	0	21
NNE	1	14	7	0	0	0	22
NE	1	12	18	26	6	0	63
ENE	0	10	18	3	0	0	31
E	1	5	3	6	2	0	17
ESE	3	5	5	5	0	0	18
SE	0	1	13	9	0	0	23
SSE	0	7	8	9	0	0	24
S	2	11	5	13	7	0	38
SSW	1	3	3	5	21	11	44
SW	1	2	17	18	24	7	69
WSW	0	6	6	14	7	4	37
W	2	6	8	9	3	5	33
WNW	0	12	10	15	3	7	47
NW	3	8	9	8	0	0	28
NNW	1	17	5	3	1	0	27
VARIABLE	0	0	0	0	0	0	0
TOTAL	17	129	142	143	77	34	542

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	8	8	4	0	0	20
NNE	2	8	23	16	0	0	49
NE	2	16	47	28	3	0	96
ENE	3	12	49	11	0	0	75
E	1	13	35	20	4	0	73
ESE	0	9	7	32	3	0	51
SE	1	5	23	33	4	0	66
SSE	0	8	32	30	12	1	83
S	0	3	15	48	49	22	137
SSW	0	6	4	38	41	31	120
SW	0	4	22	29	18	7	80
WSW	1	6	26	29	0	4	66
W	2	3	18	11	7	9	50
WNW	0	5	20	29	4	0	58
NW	0	4	6	13	8	0	31
NNW	3	6	8	3	2	0	22
VARIABLE	0	0	0	0	0	0	0
TOTAL	15	116	343	374	155	74	1077

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	3	3	0	0	0	6
NNE	1	2	1	0	0	0	4
NE	0	3	1	0	0	0	4
ENE	2	3	4	0	0	0	9
E	1	1	8	2	0	0	12
ESE	0	1	9	6	0	0	16
SE	2	4	8	1	0	0	15
SSE	1	2	4	4	2	0	13
S	0	10	11	3	1	0	25
SSW	0	9	4	5	0	0	18
SW	3	1	5	5	1	0	15
WSW	1	4	4	10	0	0	19
W	2	4	4	10	0	0	20
WNW	1	3	4	0	0	0	8
NW	1	4	8	1	0	0	14
NNW	0	1	2	1	0	0	4
VARIABLE	0	0	0	0	0	0	0
TOTAL	15	55	80	48	4	0	202

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2001

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	5	4	0	0	0	9
NNE	0	1	3	0	0	0	4
NE	0	5	0	0	0	0	5
ENE	0	0	0	0	0	0	0
E	1	0	1	0	0	0	2
ESE	0	1	3	1	0	0	5
SE	0	0	1	0	0	0	1
SSE	2	5	2	0	0	0	9
S	2	4	2	1	0	0	9
SSW	0	4	0	0	0	0	4
SW	2	2	0	0	0	0	4
WSW	1	3	1	3	0	0	8
W	0	0	3	3	0	0	6
WNW	0	1	5	6	0	0	12
NW	0	2	3	0	0	0	5
NNW	0	0	2	0	0	0	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	8	33	30	14	0	0	85

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	1	4	3	0	0	8
NNE	0	4	6	5	0	0	15
NE	0	7	13	12	0	0	32
ENE	0	2	9	0	0	0	11
E	0	2	7	2	0	0	11
ESE	1	4	8	1	0	0	14
SE	0	7	0	0	0	0	7
SSE	0	2	6	4	0	0	12
S	0	8	13	1	1	0	23
SSW	1	8	9	8	1	2	29
SW	0	6	11	1	0	0	18
WSW	0	6	13	15	2	0	36
W	1	10	26	1	0	0	38
WNW	0	7	23	9	0	0	39
NW	1	5	1	2	0	0	9
NNW	0	7	4	6	0	0	17
VARIABLE	0	0	0	0	0	0	0
TOTAL	4	86	153	70	4	2	319

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	2	0	3	0	0	6
NNE	0	1	6	0	0	0	7
NE	0	4	3	1	1	0	9
ENE	0	5	3	1	0	0	9
E	1	0	5	0	0	0	6
ESE	0	1	3	0	0	0	4
SE	0	6	1	0	0	0	7
SSE	0	8	0	3	0	0	11
S	1	3	1	0	0	0	5
SSW	0	0	4	1	3	0	8
SW	1	4	4	3	1	0	13
WSW	0	5	4	1	0	0	10
W	1	4	4	0	0	0	9
WNW	1	4	2	6	0	0	13
NW	0	3	1	0	0	0	4
NNW	1	0	3	2	0	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	7	50	44	21	5	0	127

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	1	1	2	0	0	6
NNE	1	4	7	1	0	0	13
NE	3	5	7	4	1	0	20
ENE	0	3	0	0	0	0	3
E	1	2	1	0	0	0	4
ESE	0	4	4	0	0	0	8
SE	1	2	0	0	0	0	3
SSE	0	5	3	0	0	0	8
S	0	3	1	0	0	0	4
SSW	0	3	1	0	2	0	6
SW	1	3	6	1	1	0	12
WSW	3	2	7	3	0	0	15
W	0	3	0	0	0	0	3
WNW	0	2	1	1	0	0	4
NW	0	3	2	2	0	0	7
NNW	0	2	6	1	0	0	9
VARIABLE	0	0	0	0	0	0	0
TOTAL	12	47	47	15	4	0	125

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - NEUTRAL (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	14	5	11	5	0	36
NNE	3	7	20	3	1	0	34
NE	1	16	21	23	0	0	61
ENE	1	13	18	3	0	0	35
E	2	7	12	2	0	0	23
ESE	4	5	14	0	1	0	24
SE	2	11	8	2	1	0	24
SSE	0	16	7	12	8	0	43
S	1	4	9	9	7	0	30
SSW	2	4	7	14	5	1	33
SW	1	7	11	9	2	0	30
WSW	0	3	9	3	1	0	16
W	0	11	8	8	1	0	28
WNW	1	7	7	16	2	0	33
NW	2	3	10	2	0	0	17
NNW	0	6	5	13	0	0	24
VARIABLE	0	0	0	0	0	0	0
TOTAL	21	134	171	130	34	1	491

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	7	11	4	0	0	22
NNE	2	2	17	6	0	0	27
NE	0	2	35	11	0	0	48
ENE	1	21	33	0	0	0	55
E	2	10	34	3	0	0	49
ESE	2	4	16	7	1	0	30
SE	1	4	18	19	2	0	44
SSE	1	6	41	18	1	0	67
S	0	9	27	40	8	0	84
SSW	0	2	22	21	2	1	48
SW	0	14	29	7	0	0	50
WSW	1	4	29	7	0	0	41
W	0	16	25	10	0	0	51
WNW	0	10	18	6	0	0	34
NW	1	5	9	1	0	0	16
NNW	3	10	8	7	0	0	28
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	126	372	167	14	1	694

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	9	9	0	0	0	20
NNE	0	6	9	0	0	0	15
NE	2	1	11	2	0	0	16
ENE	0	6	6	3	0	0	15
E	0	6	11	7	0	0	24
ESE	1	5	7	6	0	0	19
SE	1	6	18	3	0	0	28
SSE	1	6	6	2	0	0	15
S	3	6	10	0	0	0	19
SSW	1	8	7	0	0	0	16
SW	2	4	0	0	0	0	6
WSW	1	9	7	5	0	0	22
W	1	4	12	7	0	0	24
WNW	1	6	11	2	0	0	20
NW	1	2	10	3	0	0	16
NNW	0	5	12	0	0	0	17
VARIABLE	0	0	0	0	0	0	0
TOTAL	17	89	146	40	0	0	292

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2001

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	5	5	1	0	0	12
NNE	0	2	6	0	0	0	8
NE	2	2	1	2	0	0	7
ENE	1	0	1	0	0	0	2
E	3	4	5	7	0	0	19
ESE	4	2	3	1	0	0	10
SE	2	0	2	0	0	0	4
SSE	0	1	1	0	0	0	2
S	0	1	0	0	0	0	1
SSW	2	9	1	0	0	0	12
SW	1	4	4	0	0	0	9
WSW	4	3	2	3	0	0	12
W	2	3	8	7	0	0	20
WNW	1	4	10	6	0	0	21
NW	0	6	8	0	0	0	14
NNW	2	1	3	0	0	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	25	47	60	27	0	0	159

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 1

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	1	0	0	1
SE	1	0	0	0	0	0	1
SSE	0	1	1	1	0	0	3
S	0	2	6	2	7	4	21
SSW	0	2	4	4	6	2	18
SW	0	0	3	3	4	0	10
WSW	0	1	11	2	0	0	14
W	0	1	3	8	2	1	15
WNW	0	3	5	10	4	0	22
NW	0	2	2	0	4	1	9
NNW	0	0	1	0	0	0	1
VARIABLE	0	0	0	0	0	0	0
TOTAL	1	12	36	31	27	8	115

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	1	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	1	1	0	0	0	2
ENE	0	1	1	0	0	0	2
E	0	0	1	0	0	0	1
ESE	0	1	0	1	0	0	2
SE	0	0	0	0	0	0	0
SSE	0	2	2	1	1	0	6
S	0	1	2	3	6	2	14
SSW	0	2	5	2	2	1	12
SW	1	3	4	7	2	0	17
WSW	0	0	3	3	1	0	7
W	0	2	3	4	0	1	10
WNW	0	3	0	7	3	1	14
NW	0	3	0	0	3	0	6
NNW	0	1	2	0	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	1	20	24	29	18	5	97

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	4	1	0	0	5
NNE	0	1	0	0	0	0	1
NE	0	1	1	0	0	0	2
ENE	0	4	1	0	0	0	5
E	0	1	3	0	0	0	4
ESE	0	1	0	1	0	0	2
SE	1	2	0	0	0	0	3
SSE	0	1	2	3	1	0	7
S	0	3	0	0	0	2	5
SSW	1	0	1	1	0	1	4
SW	0	1	6	5	2	0	14
WSW	0	2	8	1	3	0	14
W	0	1	1	6	0	2	10
WNW	0	0	0	3	2	2	7
NW	0	2	1	3	6	0	12
NNW	0	1	0	0	0	0	1
VARIABLE	0	0	0	0	0	0	0
TOTAL	2	21	28	24	14	7	96

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - NEUTRAL (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	12	17	6	0	0	37
NNE	2	11	15	1	0	0	29
NE	5	12	7	13	1	0	38
ENE	1	7	5	0	0	0	13
E	1	6	6	3	0	0	16
ESE	3	2	5	10	0	0	20
SE	1	1	13	16	16	5	52
SSE	4	0	14	23	8	9	58
S	2	1	6	23	27	50	109
SSW	1	1	7	27	44	26	106
SW	0	4	16	34	6	5	65
WSW	0	4	25	43	18	4	94
W	1	11	20	28	24	17	101
WNW	0	7	23	30	25	10	95
NW	0	6	20	20	7	0	53
NNW	1	12	15	14	9	1	52
VARIABLE	0	0	0	0	0	0	0
TOTAL	24	97	214	291	185	127	938

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	0	6	1	0	0	8
NNE	0	1	5	2	0	0	8
NE	0	0	9	7	0	0	16
ENE	0	10	14	0	0	0	24
E	0	7	11	7	0	0	25
ESE	1	1	6	15	1	0	24
SE	0	4	9	20	7	1	41
SSE	2	5	21	20	13	1	62
S	0	1	5	56	32	8	102
SSW	0	4	9	82	46	4	145
SW	1	7	24	44	6	0	82
WSW	0	2	15	26	2	0	45
W	0	4	27	19	3	0	53
WNW	1	4	17	32	8	0	62
NW	2	5	14	13	0	0	34
NNW	1	4	9	3	0	0	17
VARIABLE	0	0	0	0	0	0	0
TOTAL	9	59	201	347	118	14	748

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	5	1	0	0	6
NNE	1	0	2	0	0	0	3
NE	0	0	1	1	0	0	2
ENE	1	2	1	0	0	0	4
E	0	1	3	1	0	0	5
ESE	0	2	2	0	0	0	4
SE	0	0	0	0	0	0	0
SSE	1	4	11	1	0	0	17
S	2	4	7	0	0	0	13
SSW	1	1	0	2	1	0	5
SW	0	1	4	9	1	0	15
WSW	0	2	2	10	0	0	14
W	0	0	9	12	0	0	21
WNW	1	1	12	11	0	0	25
NW	0	0	8	2	0	0	10
NNW	0	2	8	0	0	0	10
VARIABLE	0	0	0	0	0	0	0
TOTAL	7	20	75	50	2	0	154

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2001

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 199-30 FT)
WINDS MEASURED AT 203 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.9-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	0	2	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	1	1	0	0	0	0	2
ENE	0	2	0	0	0	0	2
E	1	1	0	0	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	1	1	0	0	0	2
S	0	3	0	0	0	0	3
SSW	0	2	0	0	0	0	2
SW	2	3	1	0	0	0	6
WSW	2	1	1	0	0	0	4
W	0	1	5	8	0	0	14
WNW	1	0	6	6	0	0	13
NW	0	3	0	1	0	0	4
NNW	1	2	0	0	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	9	20	16	15	0	0	60

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

APPENDIX III

2001 REMP SAMPLE RESULTS

TABLE OF CONTENTS

LIST OF TABLES

1.0 INTRODUCTION

The following constitutes the current 2001 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the Braidwood Station, Braceville, Illinois. Results of completed analyses are presented in the attached tables. Missing entries indicate analyses that are not completed and the results will appear in subsequent reports.

Missing tables indicate sample media scheduled for collection at a future date. Tables will appear in subsequent reports.

Data obtained in the program are well within the ranges previously encountered in the program and to be expected in the environmental media sampled.

For all gamma isotopic analyses, spectrum is computer scanned from 80 to 2048 keV. Specifically included are Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr/Nb-95, I-131, Ba/La-140, Cs-134 and Cs-137. Naturally occurring gamma-emitters, such as K-40 and Ra daughters, are frequently detected but not listed here. The data is reported in the format of x±2s;2TPU, where "x" is the significant result, "s" is the one standard deviation counting uncertainty, and TPU is the total propagated uncertainty at the one sigma confidence level.

Locations denoted by a "(C)" after site code refer to control locations.

All concentrations, except gross beta, are decay corrected to the time of collection.

TLD data is provided by Exelon Generation Company.

Deviations from Scheduled Sampling and Corrective Actions Taken

All samples were collected within the scheduled period unless noted otherwise in the Listing of Missed Samples.

Unusual Environmental Measurements

Sample Type	Location Code	Collection Date	Comments
None for 2001.			

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Expected Collection Date	Reason

None for 2001.

4.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	BD-19	09-13-01	Estimated timer reading of 166.3; replaced timer.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates: Continuous; weekly exchange
Iodine Cartridges: Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m^3

Units: 10^{-2} pCi/m^3

BD-03 (C) County Line Road

Date Collected	Volume (m^3)	Gross Beta	I-131[a]	Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-04-01	322	3.1 ± 0.4; 0.7	0.1 ± 0.5; 0.5	07-05-01	282	1.8 ± 0.3; 0.5	-0.3 ± 0.5; 0.5
01-11-01	285	2.5 ± 0.4; 0.6	-	07-12-01	285	2.2 ± 0.4; 0.5	-
01-18-01	286	2.5 ± 0.3; 0.6	-0.1 ± 0.4; 0.4	07-19-01	285	2.7 ± 0.4; 0.6	-1.0 ± 0.4; 0.5
01-25-01	285	4.3 ± 0.4; 0.9	-	07-26-01	284	2.7 ± 0.4; 0.6	-
02-01-01	275	2.5 ± 0.4; 0.6	0.3 ± 0.4; 0.4	08-02-01	286	3.3 ± 0.4; 0.7	-0.3 ± 0.5; 0.5
02-08-01	283	3.1 ± 0.4; 0.7	-	08-09-01	286	3.4 ± 0.4; 0.7	-
02-15-01	294	2.6 ± 0.4; 0.6	-0.1 ± 0.4; 0.4	08-16-01	287	2.4 ± 0.3; 0.5	0.1 ± 0.4; 0.4
02-22-01	280	4.2 ± 0.4; 0.9	-	08-23-01	280	1.6 ± 0.4; 0.5	-
03-01-01	291	3.3 ± 0.4; 0.7	-0.2 ± 0.4; 0.4	08-30-01	288	2.9 ± 0.3; 0.6	-0.2 ± 0.3; 0.3
03-08-01	280	2.4 ± 0.3; 0.6	-	09-06-01	286	2.5 ± 0.3; 0.6	-
03-15-01	285	1.5 ± 0.3; 0.4	0.6 ± 0.4; 0.4	09-13-01	283	2.7 ± 0.4; 0.6	-0.2 ± 0.5; 0.5
03-22-01	283	2.0 ± 0.4; 0.5	-	09-20-01	284	2.4 ± 0.4; 0.6	-
03-29-01	291	2.2 ± 0.4; 0.5	-0.4 ± 0.4; 0.4	09-27-01	279	2.2 ± 0.4; 0.5	0.2 ± 0.4; 0.4
1st Qtr. Mean±s.d.		2.8 ±0.8	0.0± 0.3	3rd Qtr. Mean±s.d.		2.5 ±0.5	-0.2± 0.4
04-05-01	281	2.4 ± 0.3; 0.6	-	10-04-01	293	3.2 ± 0.4; 0.7	-
04-12-01	289	2.0 ± 0.3; 0.5	-0.5 ± 0.5; 0.5	10-11-01	285	3.0 ± 0.4; 0.7	0.2 ± 0.5; 0.5
04-19-01	287	1.8 ± 0.4; 0.5	-	10-18-01	287	1.7 ± 0.3; 0.4	-
04-26-01	284	2.5 ± 0.4; 0.6	0.0 ± 0.5; 0.5	10-25-01	284	3.2 ± 0.4; 0.7	-1.0 ± 0.5; 0.6
05-03-01	276	3.0 ± 0.4; 0.6	-	11-01-01	289	2.6 ± 0.3; 0.6	-
05-10-01	294	2.5 ± 0.3; 0.6	0.5 ± 0.4; 0.4	11-08-01	283	2.7 ± 0.3; 0.6	0.3 ± 0.4; 0.4
05-17-01	287	2.7 ± 0.4; 0.6	-	11-15-01	293	3.4 ± 0.4; 0.7	-
05-24-01	283	1.3 ± 0.3; 0.4	0.1 ± 0.4; 0.4	11-23-01	314	4.6 ± 0.4; 0.9	0.2 ± 0.5; 0.5
05-31-01	282	1.3 ± 0.3; 0.4	-	11-29-01	240	2.7 ± 0.4; 0.6	-
06-07-01	284	0.7 ± 0.2; 0.3	-0.4 ± 0.5; 0.5	12-06-01	290	3.9 ± 0.4; 0.8	0.0 ± 0.5; 0.5
06-14-01	285	2.8 ± 0.3; 0.6	-	12-13-01	276	3.5 ± 0.4; 0.8	-
06-21-01	285	2.4 ± 0.4; 0.6	0.1 ± 0.4; 0.4	12-20-01	288	3.6 ± 0.4; 0.8	-0.8 ± 0.4; 0.4
06-28-01	287	2.3 ± 0.4; 0.5	-	12-27-01	283	3.9 ± 0.4; 0.8	-
2nd Qtr. Mean±s.d.		2.1 ±0.7	-0.0± 0.4	4th Qtr. Mean±s.d.		3.2 ±0.7	-0.2± 0.5

[a] Volume based on two week collection period.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates: Continuous; weekly exchange
Iodine Cartridges: Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m^3

Units: 10^{-2} pCi/m^3

BD-06 Godley

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-04-01	328	3.1 ± 0.4; 0.7	0.6 ± 0.4; 0.4
01-11-01	280	2.9 ± 0.4; 0.6	-
01-18-01	286	2.9 ± 0.4; 0.6	-0.5 ± 0.5; 0.5
01-25-01	285	4.6 ± 0.4; 0.9	-
02-01-01	276	2.4 ± 0.4; 0.6	-0.2 ± 0.5; 0.5
02-08-01	283	2.8 ± 0.4; 0.6	-
02-15-01	285	2.6 ± 0.4; 0.6	0.0 ± 0.5; 0.5
02-22-01	280	3.6 ± 0.4; 0.7	-
03-01-01	286	3.5 ± 0.4; 0.7	0.2 ± 0.5; 0.5
03-08-01	284	2.9 ± 0.4; 0.6	-
03-15-01	285	1.8 ± 0.3; 0.5	0.0 ± 0.4; 0.4
03-22-01	279	1.9 ± 0.4; 0.5	-
03-29-01	291	0.8 ± 0.3; 0.3	0.5 ± 0.4; 0.4
1st Qtr. Mean±s.d.		2.7 ±0.9	0.1± 0.4
04-05-01	281	2.5 ± 0.3; 0.6	-
04-12-01	284	1.7 ± 0.3; 0.5	-0.6 ± 0.6; 0.6
04-19-01	287	2.1 ± 0.4; 0.5	-
04-26-01	284	2.7 ± 0.4; 0.6	-0.0 ± 0.5; 0.5
05-03-01	276	3.2 ± 0.4; 0.7	-
05-10-01	294	2.1 ± 0.3; 0.5	-0.3 ± 0.4; 0.4
05-17-01	287	2.0 ± 0.4; 0.5	-
05-24-01	283	1.5 ± 0.3; 0.4	0.6 ± 0.4; 0.5
05-31-01	287	1.2 ± 0.3; 0.4	-
06-07-01	284	1.0 ± 0.3; 0.3	-0.5 ± 0.4; 0.4
06-14-01	285	2.8 ± 0.3; 0.6	-
06-21-01	285	2.4 ± 0.4; 0.6	0.1 ± 0.4; 0.4
06-28-01	287	2.6 ± 0.4; 0.6	-
2nd Qtr. Mean±s.d.		2.1 ±0.7	-0.1± 0.4
07-05-01	282	2.2 ± 0.4; 0.5	-0.1 ± 0.4; 0.4
07-12-01	286	2.0 ± 0.4; 0.5	-
07-19-01	285	2.2 ± 0.4; 0.5	-0.4 ± 0.4; 0.4
07-26-01	284	2.6 ± 0.4; 0.6	-
08-02-01	286	3.6 ± 0.4; 0.8	-0.0 ± 0.4; 0.4
08-09-01	286	3.7 ± 0.4; 0.8	-
08-16-01	287	2.3 ± 0.3; 0.5	-0.4 ± 0.5; 0.5
08-23-01	280	1.6 ± 0.4; 0.5	-
08-30-01	288	3.6 ± 0.4; 0.7	-0.6 ± 0.5; 0.5
09-06-01	286	2.7 ± 0.3; 0.6	-
09-13-01	287	2.7 ± 0.3; 0.6	0.4 ± 0.4; 0.4
09-20-01	284	3.2 ± 0.4; 0.7	-
09-27-01	279	2.5 ± 0.4; 0.6	-0.3 ± 0.5; 0.5
3rd Qtr. Mean±s.d.		2.7 ±0.7	-0.2± 0.3
10-04-01	293	3.0 ± 0.4; 0.7	-
10-11-01	285	2.7 ± 0.4; 0.6	0.1 ± 0.5; 0.5
10-18-01	287	1.9 ± 0.3; 0.5	-
10-25-01	284	3.0 ± 0.4; 0.6	-0.0 ± 0.4; 0.4
11-01-01	290	2.6 ± 0.3; 0.6	-
11-08-01	283	2.2 ± 0.3; 0.5	-0.2 ± 0.5; 0.5
11-15-01	293	3.6 ± 0.4; 0.7	-
11-23-01	319	4.5 ± 0.4; 0.9	-0.2 ± 0.4; 0.4
11-29-01	240	2.4 ± 0.4; 0.6	-
12-06-01	290	3.7 ± 0.4; 0.8	-0.1 ± 0.4; 0.4
12-13-01	276	3.8 ± 0.4; 0.8	-
12-20-01	288	2.9 ± 0.4; 0.7	0.3 ± 0.5; 0.6
12-27-01	283	3.7 ± 0.4; 0.8	-
4th Qtr. Mean±s.d.		3.1 ±0.7	-0.0± 0.2

[a] Volume based on two week collection period.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates: Continuous; weekly exchange
Iodine Cartridges: Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m^3

Units: 10^{-2} pCi/m^3

BD-19 Nearsite, NW

Date Collected	Volume (m^3)	Gross Beta	I-131[a]	Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-04-01	328	3.0 ± 0.4; 0.7	0.5 ± 0.5; 0.5	07-05-01	282	2.7 ± 0.4; 0.6	-0.0 ± 0.4; 0.4
01-11-01	290	2.7 ± 0.4; 0.6	-	07-12-01	282	1.0 ± 0.3; 0.4	-
01-18-01	286	2.8 ± 0.4; 0.6	0.6 ± 0.5; 0.5	07-19-01	285	1.1 ± 0.3; 0.2	0.2 ± 0.5; 0.5
01-25-01	285	4.2 ± 0.4; 0.9	-	07-26-01	275	3.3 ± 0.4; 0.7	-
02-01-01	284	2.4 ± 0.4; 0.6	-0.7 ± 0.5; 0.5	08-02-01	286	3.5 ± 0.4; 0.7	-0.1 ± 0.4; 0.4
02-08-01	283	3.0 ± 0.4; 0.7	-	08-09-01	286	3.5 ± 0.4; 0.7	-
02-15-01	285	2.4 ± 0.4; 0.6	0.1 ± 0.5; 0.5	08-16-01	287	2.3 ± 0.3; 0.5	-0.5 ± 0.5; 0.5
02-22-01	280	3.6 ± 0.4; 0.8	-	08-23-01	284	1.9 ± 0.4; 0.5	-
03-01-01	291	3.2 ± 0.4; 0.7	0.1 ± 0.5; 0.5	08-30-01	288	3.5 ± 0.4; 0.7	-0.1 ± 0.4; 0.4
03-08-01	284	2.5 ± 0.3; 0.6	-	09-06-01	282	2.7 ± 0.3; 0.6	-
03-15-01	284	2.1 ± 0.4; 0.5	-0.1 ± 0.5; 0.5	09-13-01	282	2.3 ± 0.3; 0.5	-0.2 ± 0.5; 0.5
03-22-01	278	1.5 ± 0.3; 0.4	-	09-20-01	285	2.1 ± 0.3; 0.5	-
03-29-01	282	1.5 ± 0.3; 0.4	1.2 ± 0.5; 0.5	09-27-01	279[b]	0.1 ± 0.2; 0.2	0.1 ± 0.4; 0.4
1st Qtr. Mean±s.d.		2.7 ± 0.8	0.2± 0.6	3rd Qtr. Mean±s.d.		2.3 ± 1.1	-0.1± 0.2
04-05-01	286	2.4 ± 0.3; 0.5	-	10-04-01	293	2.8 ± 0.4; 0.6	-
04-12-01	289	1.8 ± 0.3; 0.5	-0.7 ± 0.5; 0.5	10-11-01	285	2.9 ± 0.4; 0.6	0.1 ± 0.4; 0.4
04-19-01	282	2.1 ± 0.4; 0.5	-	10-18-01	287	1.8 ± 0.3; 0.4	-
04-26-01	284	2.0 ± 0.4; 0.5	-0.6 ± 0.5; 0.5	10-25-01	283	3.2 ± 0.4; 0.7	-0.2 ± 0.5; 0.5
05-03-01	276	2.8 ± 0.4; 0.6	-	11-01-01	290	2.4 ± 0.3; 0.5	-
05-10-01	294	2.3 ± 0.3; 0.5	0.6 ± 0.4; 0.4	11-08-01	283	2.7 ± 0.3; 0.6	0.3 ± 0.4; 0.4
05-17-01	287	2.0 ± 0.4; 0.5	-	11-15-01	292	3.8 ± 0.4; 0.8	-
05-24-01	283	1.7 ± 0.3; 0.4	0.3 ± 0.4; 0.4	11-23-01	319	4.4 ± 0.4; 0.9	0.3 ± 0.4; 0.4
05-31-01	286	1.1 ± 0.3; 0.4	-	11-29-01	240	2.8 ± 0.4; 0.6	-
06-07-01	284	0.9 ± 0.3; 0.3	-0.2 ± 0.4; 0.4	12-06-01	290	3.8 ± 0.4; 0.8	-0.9 ± 0.6; 0.6
06-14-01	285	1.5 ± 0.3; 0.4	-	12-13-01	281	3.4 ± 0.4; 0.7	-
06-21-01	285	2.6 ± 0.4; 0.6	0.1 ± 0.5; 0.5	12-20-01	293	3.5 ± 0.4; 0.8	0.5 ± 0.5; 0.5
06-28-01	287	2.6 ± 0.4; 0.6	-	12-27-01	280	3.9 ± 0.4; 0.8	-
2nd Qtr. Mean±s.d.		2.0 ± 0.6	-0.1± 0.5	4th Qtr. Mean±s.d.		3.2 ± 0.7	0.0± 0.5

[a] Volume based on two week collection period.

[b] Duplicate result of 0.056±0.2 pCi/m^3.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates: Continuous; weekly exchange
Iodine Cartridges: Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m^3

Units: 10^{-2} pCi/m^3

BD-20 Nearsite, N

Date Collected	Volume (m^3)	Gross Beta	I-131[a]	Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-04-01	333	3.4 ± 0.4; 0.7	-0.9 ± 0.5; 0.5	07-05-01	282	2.6 ± 0.4; 0.6	-0.1 ± 0.5; 0.5
01-11-01	285	3.0 ± 0.4; 0.7	-	07-12-01	282	2.2 ± 0.4; 0.5	-
01-18-01	285	3.1 ± 0.4; 0.7	-0.4 ± 0.4; 0.4	07-19-01	285	2.7 ± 0.4; 0.6	-0.5 ± 0.4; 0.4
01-25-01	285	4.3 ± 0.4; 0.9	-	07-26-01	280	3.1 ± 0.4; 0.7	-
02-01-01	285	2.6 ± 0.4; 0.6	-0.1 ± 0.5; 0.5	08-02-01	286	3.8 ± 0.4; 0.8	0.3 ± 0.4; 0.4
02-08-01	283	2.8 ± 0.4; 0.6	-	08-09-01	286	3.8 ± 0.4; 0.8	-
02-15-01	285	2.3 ± 0.4; 0.6	0.0 ± 0.4; 0.4	08-16-01	287	2.6 ± 0.3; 0.6	-0.4 ± 0.4; 0.4
02-22-01	280	3.8 ± 0.4; 0.8	-	08-23-01	280	1.9 ± 0.4; 0.5	-
03-01-01	291	3.0 ± 0.3; 0.6	0.1 ± 0.5; 0.5	08-30-01	288	3.7 ± 0.4; 0.8	-1.1 ± 0.4; 0.5
03-08-01	284	2.8 ± 0.3; 0.6	-	09-06-01	286	2.6 ± 0.3; 0.6	-
03-15-01	284	1.9 ± 0.3; 0.5	-0.4 ± 0.6; 0.6	09-13-01	282	2.7 ± 0.4; 0.6	0.0 ± 0.5; 0.5
03-22-01	278	1.9 ± 0.4; 0.5	-	09-20-01	285	2.5 ± 0.4; 0.6	-
03-29-01	292	2.5 ± 0.4; 0.6	-0.4 ± 0.5; 0.5	09-27-01	279	2.6 ± 0.4; 0.6	-0.2 ± 0.5; 0.5
1st Qtr. Mean±s.d.		2.9 ±0.7	-0.3± 0.3	3rd Qtr. Mean±s.d.		2.8 ±0.6	-0.3± 0.5
04-05-01	281	2.1 ± 0.3; 0.5	-	10-04-01	294	3.0 ± 0.4; 0.7	-
04-12-01	289	2.0 ± 0.3; 0.5	-0.1 ± 0.4; 0.4	10-11-01	286	3.1 ± 0.4; 0.7	-0.4 ± 0.4; 0.4
04-19-01	283	2.6 ± 0.4; 0.6	-	10-18-01	287	2.0 ± 0.3; 0.5	-
04-26-01	283	2.4 ± 0.4; 0.6	1.0 ± 0.4; 0.4	10-25-01	288	3.5 ± 0.4; 0.7	0.4 ± 0.4; 0.4
05-03-01	271	3.0 ± 0.4; 0.6	-	11-01-01	290	2.6 ± 0.3; 0.6	-
05-10-01	294	2.5 ± 0.3; 0.5	0.2 ± 0.4; 0.4	11-08-01	283	2.7 ± 0.3; 0.6	0.5 ± 0.4; 0.4
05-17-01	287	2.1 ± 0.4; 0.5	-	11-15-01	292	3.7 ± 0.4; 0.8	-
05-24-01	283	1.2 ± 0.3; 0.4	1.0 ± 0.5; 0.5	11-23-01	319	4.4 ± 0.4; 0.9	0.2 ± 0.4; 0.4
05-31-01	287	1.1 ± 0.3; 0.4	-	11-29-01	240	3.0 ± 0.4; 0.7	-
06-07-01	284	0.8 ± 0.3; 0.3	0.8 ± 0.4; 0.4	12-06-01	290	3.9 ± 0.4; 0.8	0.0 ± 0.5; 0.5
06-14-01	285	3.1 ± 0.4; 0.7	-	12-13-01	281	4.2 ± 0.4; 0.9	-
06-21-01	285	2.4 ± 0.4; 0.6	-0.1 ± 0.5; 0.5	12-20-01	288	3.9 ± 0.4; 0.8	-0.1 ± 0.5; 0.5
06-28-01	287	2.1 ± 0.3; 0.5	-	12-27-01	280	3.7 ± 0.4; 0.8	-
2nd Qtr. Mean±s.d.		2.1 ±0.7	0.4± 0.5	4th Qtr. Mean±s.d.		3.4 ±0.7	0.1± 0.3

[a] Volume based on two week collection period.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates: Continuous; weekly exchange
Iodine Cartridges: Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m^3

Units: 10^{-2} pCi/m^3

BD-21 Nearsite, NE

Date Collected	Volume (m^3)	Gross Beta	I-131[a]	Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-04-01	328	3.3 ± 0.4; 0.7	-0.0 ± 0.4; 0.4	07-05-01	282	1.8 ± 0.3; 0.5	0.4 ± 0.5; 0.5
01-11-01	279	2.6 ± 0.4; 0.6	-	07-12-01	282	2.2 ± 0.4; 0.5	-
01-18-01	287	2.8 ± 0.4; 0.6	0.6 ± 0.4; 0.4	07-19-01	285	2.6 ± 0.4; 0.6	-0.1 ± 0.5; 0.5
01-25-01	285	4.1 ± 0.4; 0.8	-	07-26-01	284	3.1 ± 0.4; 0.7	-
02-01-01	285	2.5 ± 0.4; 0.6	0.3 ± 0.5; 0.5	08-02-01	286	3.5 ± 0.4; 0.7	-0.1 ± 0.5; 0.5
02-08-01	283	2.8 ± 0.4; 0.6	-	08-09-01	286	3.5 ± 0.4; 0.7	-
02-15-01	285	3.0 ± 0.4; 0.7	-0.3 ± 0.5; 0.5	08-16-01	287	2.0 ± 0.3; 0.5	0.5 ± 0.5; 0.5
02-22-01	280	3.7 ± 0.4; 0.8	-	08-23-01	280	1.7 ± 0.4; 0.5	-
03-01-01	291	3.0 ± 0.3; 0.6	-0.0 ± 0.5; 0.5	08-30-01	288	3.4 ± 0.4; 0.7	-0.6 ± 0.5; 0.5
03-08-01	284	2.5 ± 0.3; 0.6	-	09-06-01	286	2.4 ± 0.3; 0.6	-
03-15-01	284	1.7 ± 0.3; 0.5	0.1 ± 0.4; 0.4	09-13-01	283	2.4 ± 0.3; 0.6	-0.1 ± 0.4; 0.4
03-22-01	278	1.9 ± 0.4; 0.5	-	09-20-01	284	2.5 ± 0.4; 0.6	-
03-29-01	292	2.0 ± 0.4; 0.5	-0.3 ± 0.5; 0.5	09-27-01	279	2.1 ± 0.4; 0.5	0.3 ± 0.5; 0.5
1st Qtr. Mean±s.d.		2.8 ± 0.7	0.1± 0.3	3rd Qtr. Mean±s.d.		2.6 ± 0.6	0.0± 0.4
04-05-01	281	2.2 ± 0.3; 0.5	-	10-04-01	296	2.8 ± 0.4; 0.6	-
04-12-01	289	1.9 ± 0.3; 0.5	0.1 ± 0.4; 0.4	10-11-01	282	2.9 ± 0.4; 0.6	-0.2 ± 0.5; 0.5
04-19-01	282	2.3 ± 0.4; 0.6	-	10-18-01	287	1.8 ± 0.3; 0.4	-
04-26-01	284	2.0 ± 0.4; 0.5	0.4 ± 0.5; 0.5	10-25-01	283	3.4 ± 0.4; 0.7	-0.3 ± 0.5; 0.5
05-03-01	276	2.7 ± 0.3; 0.6	-	11-01-01	290	2.1 ± 0.3; 0.5	-
05-10-01	294	2.4 ± 0.3; 0.5	-0.3 ± 0.5; 0.5	11-08-01	283	2.7 ± 0.3; 0.6	-0.3 ± 0.5; 0.5
05-17-01	287	2.0 ± 0.4; 0.5	-	11-15-01	293	3.8 ± 0.4; 0.8	-
05-24-01	283	1.5 ± 0.3; 0.4	-0.4 ± 0.5; 0.5	11-23-01	319	4.5 ± 0.4; 0.9	-0.6 ± 0.5; 0.5
05-31-01	286	1.2 ± 0.3; 0.4	-	11-29-01	240	2.8 ± 0.4; 0.6	-
06-07-01	284	0.8 ± 0.3; 0.3	-0.0 ± 0.5; 0.5	12-06-01	290	4.3 ± 0.4; 0.9	-0.4 ± 0.4; 0.4
06-14-01	286	2.7 ± 0.3; 0.6	-	12-13-01	280	4.0 ± 0.4; 0.9	-
06-21-01	285	2.0 ± 0.4; 0.5	0.1 ± 0.4; 0.4	12-20-01	288	3.4 ± 0.4; 0.7	0.4 ± 0.6; 0.6
06-28-01	292	2.2 ± 0.4; 0.5	-	12-27-01	281	3.9 ± 0.4; 0.8	-
2nd Qtr. Mean±s.d.		2.0 ± 0.6	-0.0± 0.3	4th Qtr. Mean±s.d.		3.3 ± 0.8	-0.2± 0.3

[a] Volume based on two week collection period.

Table 2. Airborne Particulates

Collection:	Quarterly composites of weekly collections
ODCM-Required LLDs:	Cs-134 = 0.01, Cs-137 = 0.01 pCi/m^3
Other LLDs:	Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m^3
Units:	10^{-4} pCi/m^3

Sample Description and Concentration

BD-03 (C) County Line Road

2001 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-3222	BDAP-6634	BDAP-9927	BDAP-11979
Volume	3,747	3,711	3,703	3,712
Mn-54	-3.8 ± 6.9; 6.9	-1.1 ± 6.8; 6.8	2.7 ± 7.4; 7.5	-3.9 ± 6.6; 6.6
Fe-59	19.2 ± 18.8; 19.1	10.6 ± 9.3; 9.5	19.6 ± 10.9; 11.4	12.0 ± 7.2; 7.5
Co-58	-9.5 ± 7.3; 7.5	6.8 ± 5.3; 5.4	5.8 ± 5.1; 5.2	12.8 ± 6.9; 7.2
Co-60	4.2 ± 7.5; 7.5	8.8 ± 6.1; 6.3	2.4 ± 6.1; 6.1	4.5 ± 5.0; 5.1
Zn-65	3.0 ± 14.5; 14.5	5.1 ± 9.8; 9.9	-2.0 ± 10.8; 10.8	2.2 ± 20.8; 20.8
Zr/Nb-95	-7.5 ± 6.9; 7.0	9.8 ± 11.6; 11.7	-4.0 ± 12.5; 12.5	2.7 ± 6.5; 6.5
Cs-134	0.3 ± 6.5; 6.5	8.0 ± 5.8; 6.0	7.2 ± 5.7; 5.8	2.0 ± 5.5; 5.5
Cs-137	-2.0 ± 6.3; 6.3	-2.5 ± 5.6; 5.6	1.4 ± 6.5; 6.5	1.6 ± 8.2; 8.2
Ba/La-140	23.5 ± 3.7; 5.6	-68.5 ± 9.8; 15.6	10.3 ± 7.2; 7.5	17.4 ± 3.8; 4.9

BD-06 Godley

2001 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-3223	BDAP-6635	BDAP-9928	BDAP-11980
Volume	3,735	3,711	3,709	3,717
Mn-54	8.3 ± 4.6; 4.8	-1.1 ± 6.8; 6.8	-1.9 ± 6.6; 6.6	-1.0 ± 7.4; 7.4
Fe-59	-37.1 ± 17.9; 19.1	-24.2 ± 11.0; 11.8	-13.6 ± 14.4; 14.6	-6.2 ± 15.8; 15.9
Co-58	-1.0 ± 6.8; 6.8	6.8 ± 5.3; 5.4	8.1 ± 3.8; 4.1	-1.3 ± 5.8; 5.8
Co-60	8.7 ± 5.7; 5.9	7.7 ± 5.6; 5.8	-7.9 ± 9.9; 10.0	3.6 ± 9.4; 9.4
Zn-65	-22.1 ± 15.4; 15.9	4.1 ± 12.5; 12.5	-8.1 ± 14.4; 14.5	-37.1 ± 24.4; 25.3
Zr/Nb-95	7.6 ± 6.1; 6.2	9.7 ± 5.0; 5.3	-2.4 ± 5.1; 5.1	-12.0 ± 7.4; 7.7
Cs-134	6.0 ± 7.0; 7.1	-4.1 ± 7.1; 7.1	-5.7 ± 6.8; 6.9	0.5 ± 9.3; 9.3
Cs-137	1.3 ± 7.0; 7.0	-4.8 ± 6.4; 6.4	0.9 ± 5.7; 5.7	2.5 ± 7.5; 7.5
Ba/La-140	-2.0 ± 6.7; 6.7	37.5 ± 4.6; 8.1	-4.1 ± 9.5; 9.5	-27.0 ± 11.9; 12.8

Table 2. Airborne Particulates

Collection:	Quarterly composites of weekly collections
ODCM-Required LLDs:	Cs-134 = 0.01, Cs-137 = 0.01 pCi/m^3
Other LLDs:	Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m^3
Units:	10^{-4} pCi/m^3

Sample Description and Concentration

BD-19 Nearsite, NW

2001 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-3224	BDAP-6636	BDAP-9929,30	BDAP-11981
Volume	3,748	3,715	3,690	3,724
Mn-54	-5.3 ± 6.6; 6.6	3.8 ± 7.0; 7.0	1.9 ± 4.8; 4.8	-3.4 ± 5.9; 5.9
Fe-59	-65.9 ± 23.3; 26.1	-21.2 ± 11.4; 12.0	14.5 ± 6.0; 6.5	-1.3 ± 15.9; 15.9
Co-58	-9.3 ± 6.7; 6.9	1.4 ± 5.9; 5.9	-0.3 ± 3.9; 3.9	-2.6 ± 6.9; 6.9
Co-60	4.2 ± 7.5; 7.5	-7.9 ± 9.9; 10.0	6.6 ± 4.6; 4.8	2.5 ± 9.4; 9.4
Zn-65	-3.0 ± 13.1; 13.1	15.2 ± 12.7; 13.0	-0.7 ± 11.3; 11.3	-30.7 ± 21.8; 22.5
Zr/Nb-95	1.4 ± 6.5; 6.5	-8.7 ± 5.7; 5.9	-5.6 ± 4.4; 4.5	-4.5 ± 5.7; 5.7
Cs-134	6.8 ± 7.1; 7.2	2.0 ± 6.1; 6.1	6.1 ± 5.3; 5.4	8.1 ± 8.6; 8.7
Cs-137	4.8 ± 6.4; 6.5	-2.1 ± 6.9; 6.9	2.3 ± 4.6; 4.6	3.2 ± 5.1; 5.1
Ba/La-140	21.7 ± 7.6; 8.5	8.3 ± 9.8; 9.9	-57.8 ± 6.8; 12.3	-58.2 ± 8.6; 13.5

BD-20 Nearsite, N

2001 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-3225	BDAP-6637	BDAP-9931	BDAP-11982
Volume	3,758	3,706	3,694	3,726
Mn-54	0.4 ± 5.4; 5.4	1.9 ± 5.8; 5.8	1.9 ± 5.9; 5.9	-1.0 ± 6.0; 6.0
Fe-59	14.8 ± 18.0; 18.2	13.7 ± 9.8; 10.1	15.2 ± 12.4; 12.7	12.3 ± 13.0; 13.1
Co-58	-3.0 ± 6.4; 6.5	-1.5 ± 4.6; 4.6	-7.5 ± 7.1; 7.3	-2.6 ± 5.5; 5.6
Co-60	3.4 ± 8.6; 8.6	1.5 ± 7.7; 7.7	-4.0 ± 6.0; 6.0	7.6 ± 6.6; 6.8
Zn-65	5.0 ± 9.7; 9.7	-24.3 ± 19.1; 19.6	1.0 ± 14.3; 14.3	6.8 ± 16.5; 16.5
Zr/Nb-95	3.3 ± 5.7; 5.7	-15.3 ± 6.8; 7.3	2.9 ± 6.8; 6.9	2.8 ± 6.7; 6.7
Cs-134	6.4 ± 4.3; 4.5	7.0 ± 6.5; 6.6	-0.4 ± 5.6; 5.6	-1.0 ± 6.6; 6.6
Cs-137	3.6 ± 5.6; 5.7	-0.7 ± 6.6; 6.6	-3.4 ± 6.7; 6.7	-2.1 ± 7.1; 7.1
Ba/La-140	-13.8 ± 6.0; 6.5	88.0 ± 7.0; 17.2	22.8 ± 7.7; 8.7	-81.1 ± 9.7; 17.4

Table 2. Airborne Particulates

Collection:	Quarterly composites of weekly collections
ODCM-Required LLDs:	Cs-134 = 0.01, Cs-137 = 0.01 pCi/m^3
Other LLDs:	Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m^3
Units:	10^{-4} pCi/m^3

Sample Description and Concentration

BD-21 Nearsite, NE

2001 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-3226	BDAP-6638	BDAP-9932	BDAP-11983
Volume	3,748	3,716	3,699	3,720
Mn-54	-2.3 ± 5.7; 5.7	-2.3 ± 7.2; 7.2	5.0 ± 6.5; 6.5	6.3 ± 6.9; 7.0
Fe-59	-15.6 ± 17.3; 17.6	-9.1 ± 13.2; 13.2	-6.1 ± 13.6; 13.7	-1.3 ± 15.9; 15.9
Co-58	4.5 ± 5.6; 5.7	0.2 ± 6.4; 6.4	4.9 ± 4.1; 4.2	1.3 ± 7.3; 7.3
Co-60	-4.2 ± 8.1; 8.1	0.2 ± 5.2; 5.2	-1.7 ± 8.5; 8.5	10.4 ± 7.6; 7.8
Zn-65	16.0 ± 10.0; 10.4	5.1 ± 9.8; 9.9	21.3 ± 14.1; 14.6	4.0 ± 16.8; 16.8
Zr/Nb-95	-6.8 ± 9.6; 9.7	-14.8 ± 5.8; 6.3	-13.3 ± 5.9; 6.4	-6.3 ± 5.4; 5.5
Cs-134	8.7 ± 5.9; 6.1	-13.5 ± 7.8; 8.2	2.2 ± 5.3; 5.3	-2.0 ± 9.2; 9.2
Cs-137	-2.0 ± 6.3; 6.3	8.4 ± 6.0; 6.2	1.0 ± 5.0; 5.0	4.9 ± 6.8; 6.8
Ba/La-140	33.6 ± 8.0; 10.0	10.5 ± 7.2; 7.4	22.8 ± 7.7; 8.7	-61.4 ± 11.6; 15.9

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Table 3. Milk

Collection: Biweekly (May - October)
Monthly (November - April)

ODCM-Required LLDs: I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Other LLDs: Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-17 Halpin's Dairy

Date Collected	01-04-01	02-01-01	03-01-01	04-05-01
Lab Code	BDMI-22	BDMI-740,1	BDMI-1447,8	BDMI-2512
I-131	-0.29 ± 0.17; 0.18	-0.02 ± 0.18; 0.18	-0.26 ± 0.31; 0.31	-0.18 ± 0.18; 0.18
Mn-54	-0.9 ± 2.0; 2.0	0.5 ± 1.9; 1.9	-0.1 ± 2.4; 2.4	2.6 ± 3.8; 3.8
Fe-59	0.4 ± 4.4; 4.4	-0.6 ± 4.4; 4.4	-2.1 ± 4.6; 4.6	-0.2 ± 7.7; 7.7
Co-58	0.4 ± 1.7; 1.7	-0.5 ± 2.0; 2.0	-0.3 ± 2.2; 2.2	-1.3 ± 4.1; 4.1
Co-60	0.4 ± 2.5; 2.5	1.3 ± 1.7; 1.7	3.0 ± 2.9; 3.0	-2.8 ± 4.5; 4.5
Zn-65	-5.1 ± 4.8; 4.8	1.1 ± 4.4; 4.4	4.8 ± 5.9; 5.9	-2.4 ± 9.5; 9.6
Zr/Nb-95	0.6 ± 2.0; 2.0	-0.2 ± 1.9; 1.9	-1.1 ± 2.1; 2.1	4.8 ± 3.9; 4.0
Cs-134	-1.0 ± 2.2; 2.2	-1.5 ± 2.2; 2.2	0.4 ± 2.9; 2.9	7.1 ± 4.3; 4.4
Cs-137	-0.1 ± 2.3; 2.3	-0.1 ± 2.0; 2.0	-0.9 ± 2.2; 2.2	-0.6 ± 3.6; 3.6
Ba/La-140	0.3 ± 1.4; 1.4	2.0 ± 2.0; 2.0	0.6 ± 2.1; 2.1	-2.8 ± 3.1; 3.1

Date Collected	05-03-01	05-17-01	05-31-01	06-14-01
Lab Code	BDMI-3531	BDMI-3996	BDMI-4413	BDMI-4905
I-131	-0.16 ± 0.18; 0.18	-0.15 ± 0.23; 0.23	-0.11 ± 0.19; 0.19	-0.18 ± 0.16; 0.16
Mn-54	1.3 ± 3.7; 3.8	0.3 ± 3.4; 3.4	0.1 ± 4.3; 4.3	0.2 ± 1.0; 1.0
Fe-59	2.8 ± 8.8; 8.8	0.9 ± 7.8; 7.8	4.8 ± 7.5; 7.6	-2.2 ± 2.1; 2.1
Co-58	-1.0 ± 3.6; 3.6	-1.8 ± 3.6; 3.7	-1.6 ± 3.6; 3.6	-1.2 ± 1.0; 1.0
Co-60	1.0 ± 4.9; 4.9	-0.5 ± 4.4; 4.4	0.8 ± 3.8; 3.8	0.7 ± 1.2; 1.2
Zn-65	-0.4 ± 9.7; 9.7	-12.5 ± 8.9; 9.1	5.4 ± 8.9; 8.9	1.1 ± 2.4; 2.4
Zr/Nb-95	0.3 ± 3.9; 3.9	2.1 ± 3.6; 3.6	0.1 ± 3.7; 3.7	1.6 ± 1.0; 1.0
Cs-134	2.1 ± 4.3; 4.3	-0.1 ± 3.8; 3.8	4.5 ± 4.1; 4.2	1.0 ± 1.1; 1.1
Cs-137	-0.3 ± 3.9; 3.9	-1.5 ± 3.2; 3.2	0.4 ± 3.6; 3.6	0.3 ± 1.1; 1.1
Ba/La-140	-4.6 ± 4.6; 4.6	-0.1 ± 3.3; 3.3	-9.5 ± 4.3; 4.5	-4.5 ± 1.0; 1.2

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Table 3. Milk

Collection: Biweekly (May - October)
Monthly (November - April)

ODCM-Required LLDs: I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Other LLDs: Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-17 Halpin's Dairy

Date Collected	06-28-01	07-12-01	07-26-01	08-09-01
Lab Code	BDMI-5357	BDMI-5939	BDMI-6520	BDMI-6984
I-131	0.20 ± 0.22; 0.22	0.00 ± 0.19; 0.19	-0.12 ± 0.15; 0.15	-0.22 ± 0.18; 0.19
Mn-54	3.9 ± 4.3; 4.4	3.2 ± 3.1; 3.1	0.0 ± 2.8; 2.8	-0.3 ± 4.3; 4.3
Fe-59	-7.9 ± 8.9; 9.0	-8.1 ± 7.2; 7.3	1.5 ± 6.1; 6.1	3.8 ± 11.0; 11.0
Co-58	2.5 ± 4.0; 4.0	-0.6 ± 3.0; 3.0	0.9 ± 3.0; 3.0	0.8 ± 3.5; 3.5
Co-60	4.0 ± 4.9; 4.9	4.5 ± 3.6; 3.7	0.3 ± 3.3; 3.3	4.8 ± 6.3; 6.3
Zn-65	3.8 ± 9.6; 9.6	-2.4 ± 7.8; 7.8	1.9 ± 7.1; 7.1	-25.5 ± 10.8; 11.3
Zr/Nb-95	-4.6 ± 3.9; 4.0	-1.1 ± 3.3; 3.3	-2.1 ± 3.2; 3.2	4.2 ± 4.4; 4.4
Cs-134	2.0 ± 4.2; 4.3	4.0 ± 3.4; 3.5	0.3 ± 3.6; 3.6	-2.9 ± 4.8; 4.9
Cs-137	-1.1 ± 3.9; 3.9	2.2 ± 2.8; 2.8	-2.0 ± 3.8; 3.8	7.4 ± 4.6; 4.7
Ba/La-140	-1.0 ± 4.5; 4.5	-2.2 ± 3.5; 3.5	1.6 ± 3.0; 3.0	-0.7 ± 4.0; 4.0

Date Collected	08-23-01	09-06-01	09-20-01	10-04-01
Lab Code	BDMI-7301	BDMI-7800	BDMI-8167	BDMI-8808
I-131	-0.22 ± 0.17; 0.17	-0.20 ± 0.19; 0.20	-0.29 ± 0.24; 0.24	0.13 ± 0.19; 0.19
Mn-54	-2.1 ± 2.0; 2.0	0.1 ± 3.0; 3.0	2.3 ± 3.7; 3.7	-2.3 ± 4.0; 4.0
Fe-59	-2.4 ± 5.1; 5.1	1.0 ± 6.2; 6.2	4.6 ± 1.2; 1.3	-3.6 ± 8.6; 8.6
Co-58	-2.5 ± 2.0; 2.0	1.2 ± 2.9; 2.9	3.4 ± 4.0; 4.0	1.4 ± 4.0; 4.0
Co-60	-1.8 ± 2.8; 2.8	-1.4 ± 3.4; 3.4	-4.1 ± 4.7; 4.7	2.6 ± 4.9; 5.0
Zn-65	-2.8 ± 6.1; 6.1	-2.3 ± 6.7; 6.7	-0.9 ± 9.8; 9.8	-9.2 ± 9.7; 9.8
Zr/Nb-95	2.2 ± 2.1; 2.1	0.2 ± 2.9; 2.9	2.1 ± 4.1; 4.1	2.7 ± 3.3; 3.3
Cs-134	0.4 ± 2.2; 2.2	-0.8 ± 3.6; 3.6	1.1 ± 4.6; 4.6	1.5 ± 4.7; 4.7
Cs-137	0.8 ± 2.3; 2.3	0.8 ± 3.4; 3.4	4.0 ± 4.5; 4.6	1.1 ± 3.7; 3.7
Ba/La-140	-0.9 ± 1.6; 1.6	-0.9 ± 2.7; 2.7	-1.4 ± 4.9; 4.9	-9.9 ± 4.2; 4.4

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Table 3. Milk

Collection: Biweekly (May - October)
Monthly (November - April)

ODCM-Required LLDs: I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Other LLDs: Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-17 Halpin's Dairy

Date Collected	10-18-01	11-01-01	12-06-01
Lab Code	BDMI-9400	BDMI-10026	BDMI-10935
I-131	0.12 ± 0.16; 0.16	-0.05 ± 0.17; 0.17	-0.19 ± 0.20; 0.20
Mn-54	-0.2 ± 3.1; 3.1	-0.1 ± 0.8; 0.8	2.2 ± 3.5; 3.5
Fe-59	0.7 ± 5.9; 5.9	-0.1 ± 1.8; 1.8	0.6 ± 8.1; 8.1
Co-58	1.9 ± 3.2; 3.3	0.5 ± 0.8; 0.8	-1.0 ± 3.3; 3.3
Co-60	-0.6 ± 3.5; 3.5	-1.0 ± 0.9; 0.9	-1.7 ± 4.3; 4.3
Zn-65	-1.5 ± 7.4; 7.4	0.8 ± 2.1; 2.1	-2.4 ± 8.2; 8.2
Zr/Nb-95	-1.1 ± 3.1; 3.1	-1.4 ± 0.9; 0.9	2.0 ± 3.5; 3.5
Cs-134	-1.8 ± 3.6; 3.6	-0.2 ± 0.9; 0.9	-1.8 ± 4.5; 4.5
Cs-137	0.7 ± 3.8; 3.9	0.5 ± 0.9; 0.9	-2.0 ± 3.4; 3.4
Ba/La-140	-2.2 ± 3.2; 3.2	-3.7 ± 0.7; 0.9	1.5 ± 2.6; 2.6

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Table 3. Milk

Collection: Biweekly (May - October)
Monthly (November - April)

ODCM-Required LLDs: I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Other LLDs: Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-18 (C) Biros Farm

Date Collected	01-04-01	02-01-01	03-01-01	04-05-01
Lab Code	BDMI-23	BDMI-742	BDMI-1449	BDMI-2513
I-131	-0.22 ± 0.19; 0.19	0.03 ± 0.16; 0.16	0.33 ± 0.36; 0.37	-0.09 ± 0.15; 0.15
Mn-54	1.4 ± 2.0; 2.0	1.6 ± 1.9; 1.9	-4.0 ± 3.8; 3.8	-0.9 ± 3.5; 3.5
Fe-59	-3.6 ± 4.7; 4.7	6.7 ± 4.4; 4.5	-1.4 ± 7.2; 7.2	-0.4 ± 7.1; 7.1
Co-58	-0.1 ± 1.9; 1.9	0.6 ± 1.8; 1.8	-0.3 ± 4.1; 4.1	0.6 ± 4.2; 4.2
Co-60	-1.2 ± 2.4; 2.4	0.2 ± 2.9; 2.9	1.4 ± 4.7; 4.7	0.4 ± 4.0; 4.0
Zn-65	-1.7 ± 5.5; 5.5	1.4 ± 5.4; 5.4	3.5 ± 10.0; 10.1	-4.4 ± 8.1; 8.1
Zr/Nb-95	-1.2 ± 2.1; 2.1	-0.7 ± 1.8; 1.8	-3.1 ± 4.0; 4.0	-3.4 ± 4.5; 4.5
Cs-134	1.6 ± 2.1; 2.1	0.2 ± 2.3; 2.3	1.1 ± 4.7; 4.7	-1.0 ± 5.1; 5.1
Cs-137	-0.4 ± 2.0; 2.0	-0.9 ± 2.0; 2.0	0.2 ± 3.2; 3.2	-0.1 ± 3.8; 3.8
Ba/La-140	-1.5 ± 1.7; 1.7	1.8 ± 1.9; 1.9	-18.1 ± 5.4; 5.9	-1.3 ± 2.7; 2.7

Date Collected	05-03-01	05-17-01	05-31-01	06-15-01
Lab Code	BDMI-3532	BDMI-3997	BDMI-4414	BDMI-4906
I-131	0.07 ± 0.20; 0.20	-0.18 ± 0.19; 0.19	-0.01 ± 0.20; 0.20	-0.18 ± 0.17; 0.17
Mn-54	5.1 ± 3.4; 3.5	0.1 ± 3.0; 3.0	2.4 ± 1.8; 1.8	-0.2 ± 2.0; 2.0
Fe-59	-0.6 ± 7.8; 7.8	-3.6 ± 5.8; 5.8	-3.0 ± 4.0; 4.0	1.6 ± 5.0; 5.0
Co-58	-0.7 ± 3.7; 3.7	2.3 ± 3.0; 3.0	-0.3 ± 1.9; 1.9	-0.4 ± 2.0; 2.0
Co-60	3.5 ± 4.5; 4.5	-0.6 ± 3.3; 3.3	-1.1 ± 2.3; 2.3	1.0 ± 2.1; 2.2
Zn-65	-2.4 ± 7.7; 7.7	3.3 ± 7.3; 7.3	-3.1 ± 5.6; 5.6	-3.8 ± 5.2; 5.2
Zr/Nb-95	-0.5 ± 3.8; 3.8	-0.7 ± 2.8; 2.8	-0.3 ± 2.0; 2.0	2.0 ± 2.4; 2.4
Cs-134	-1.1 ± 4.2; 4.2	-0.4 ± 3.7; 3.7	-0.8 ± 2.3; 2.3	-1.9 ± 2.3; 2.3
Cs-137	2.2 ± 4.0; 4.0	-0.9 ± 3.4; 3.4	0.9 ± 2.2; 2.2	0.3 ± 2.0; 2.0
Ba/La-140	-2.3 ± 3.4; 3.4	6.9 ± 2.2; 2.4	-0.7 ± 1.7; 1.7	0.5 ± 1.8; 1.8

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Table 3. Milk

Collection: Biweekly (May - October)
Monthly (November - April)

ODCM-Required LLDs: I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Other LLDs: Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-18 (C) Biros Farm

Date Collected	06-28-01	07-12-01	07-26-01	08-09-01
Lab Code	BDMI-5358	BDMI-5940	BDMI-6521	BDMI-6985
I-131	-0.08 ± 0.22; 0.22	-0.25 ± 0.21; 0.21	-0.09 ± 0.14; 0.14	-0.15 ± 0.18; 0.18
Mn-54	0.9 ± 3.5; 3.5	-2.6 ± 2.8; 2.8	-0.9 ± 3.4; 3.4	0.6 ± 1.9; 1.9
Fe-59	6.5 ± 7.2; 7.3	-3.1 ± 6.1; 6.1	-1.8 ± 7.8; 7.8	-12.2 ± 3.9; 4.2
Co-58	-1.3 ± 3.7; 3.7	-2.4 ± 3.0; 3.0	-1.6 ± 3.3; 3.4	2.7 ± 1.8; 1.8
Co-60	2.9 ± 4.6; 4.7	-1.7 ± 3.4; 3.4	-1.1 ± 3.8; 3.8	0.2 ± 2.1; 2.1
Zn-65	3.5 ± 7.7; 7.7	-4.6 ± 6.4; 6.4	-10.4 ± 8.0; 8.1	4.0 ± 5.0; 5.0
Zr/Nb-95	-3.3 ± 3.7; 3.8	-3.9 ± 2.9; 2.9	-1.3 ± 3.1; 3.1	-4.4 ± 1.8; 1.9
Cs-134	-2.6 ± 5.2; 5.2	1.0 ± 3.6; 3.6	-5.4 ± 4.5; 4.6	0.2 ± 2.1; 2.1
Cs-137	1.6 ± 3.8; 3.8	0.3 ± 3.3; 3.3	-1.4 ± 3.5; 3.5	-0.1 ± 2.1; 2.1
Ba/La-140	-3.8 ± 3.5; 3.6	-2.4 ± 2.2; 2.2	-0.8 ± 3.7; 3.7	-3.4 ± 1.5; 1.6

Date Collected	08-23-01	09-06-01	09-20-01	10-04-01
Lab Code	BDMI-7302	BDMI-7801,2	BDMI-8168	BDMI-8809
I-131	-0.14 ± 0.16; 0.16	-0.16 ± 0.17; 0.17	-0.35 ± 0.21; 0.22	0.04 ± 0.17; 0.17
Mn-54	2.1 ± 3.6; 3.6	-2.0 ± 2.2; 2.2	-3.9 ± 3.9; 3.9	3.3 ± 2.2; 2.2
Fe-59	1.5 ± 7.7; 7.7	0.5 ± 4.4; 4.4	5.1 ± 10.1; 10.1	-2.5 ± 4.2; 4.2
Co-58	-1.9 ± 3.8; 3.8	1.8 ± 2.0; 2.0	0.4 ± 4.3; 4.3	-0.5 ± 2.2; 2.2
Co-60	3.1 ± 4.0; 4.0	-1.5 ± 2.8; 2.8	-4.1 ± 6.5; 6.5	-0.1 ± 2.4; 2.4
Zn-65	13.4 ± 8.2; 8.4	-3.8 ± 4.9; 4.9	5.3 ± 12.1; 12.1	-1.3 ± 5.7; 5.7
Zr/Nb-95	-2.9 ± 4.1; 4.1	0.1 ± 2.2; 2.2	-1.3 ± 4.3; 4.3	1.7 ± 2.3; 2.3
Cs-134	-0.7 ± 4.2; 4.2	-0.5 ± 2.5; 2.5	1.3 ± 4.9; 4.9	-0.5 ± 2.3; 2.3
Cs-137	1.6 ± 3.6; 3.6	-0.7 ± 2.1; 2.1	3.7 ± 4.0; 4.0	0.5 ± 2.4; 2.4
Ba/La-140	-1.0 ± 4.8; 4.8	0.2 ± 1.8; 1.8	-2.8 ± 4.9; 4.9	-2.6 ± 1.5; 1.5

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Table 3. Milk

Collection:	Biweekly (May - October) Monthly (November - April)
ODCM-Required LLDs:	I-131 = 0.5 pCi/L (May - October), I-131= 5 pCi/L (November - April), Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L
Other LLDs:	Mn-54 = 10; Fe-59 = 15; Co-58, Co-60 = 10; Zn-65 = 15; Zr/Nb-95 = 10 pCi/L
Units:	pCi/L

Sample Description and Concentration

BD-18 (C) Biros Farm

Date Collected	10-18-01	11-01-01	12-06-01
Lab Code	BDMI-9401	BDMI-10027	BDMI-10936
I-131	-0.05 ± 0.17; 0.17	0.13 ± 0.18; 0.18	-0.00 ± 0.22; 0.22
Mn-54	2.2 ± 3.8; 3.8	-0.9 ± 1.5; 1.5	-0.8 ± 2.9; 2.9
Fe-59	-6.7 ± 7.5; 7.6	-5.0 ± 3.6; 3.7	1.6 ± 6.8; 6.8
Co-58	1.3 ± 3.8; 3.8	-1.2 ± 1.4; 1.4	0.4 ± 2.7; 2.7
Co-60	3.4 ± 4.1; 4.2	-0.1 ± 1.5; 1.5	-0.8 ± 3.8; 3.8
Zn-65	1.0 ± 9.7; 9.7	-0.5 ± 4.0; 4.0	-12.4 ± 8.5; 8.7
Zr/Nb-95	1.0 ± 3.6; 3.6	-3.0 ± 1.5; 1.6	-3.7 ± 3.6; 3.6
Cs-134	-4.4 ± 4.5; 4.5	-0.6 ± 1.8; 1.8	1.0 ± 3.9; 3.9
Cs-137	1.5 ± 4.0; 4.0	1.5 ± 1.7; 1.7	-0.5 ± 3.8; 3.8
Ba/La-140	9.1 ± 3.5; 3.7	3.0 ± 1.3; 1.4	-3.7 ± 3.5; 3.6

Table 4. Fish, Edible Portions

Collection: Semiannually

ODCM-Required LLDs: Mn-54 = 0.13, Fe-59 = 0.26, Co-58 = 0.13, Co-60 = 0.13, Zn-65 = 0.26, Cs-134 = 0.1, Cs-137 = 0.1 pCi/g wet weight

Other LLDs: Zr/Nb-95 = 0.20, Ba/La-140 = 0.30 pCi/g wet weight

Units: 10^{-2} pCi/g wet weight

Sample Description and Concentration

BD-25 (C) Kankakee River, Upstream

Date Collected	05-02-01	05-02-01	05-02-01	05-02-01
Lab Code	BDF-3465	BDF-3466	BDF-3467	BDF-3468
Type	Golden Redhorse	Channel Catfish	River Carpsucker	Quillback
Mn-54	0.0 ± 0.4; 0.4	-0.0 ± 0.4; 0.4	-0.7 ± 0.8; 0.8	0.3 ± 0.7; 0.7
Fe-59	0.6 ± 0.9; 0.9	0.9 ± 0.9; 0.9	-0.7 ± 1.5; 1.5	0.1 ± 1.8; 1.8
Co-58	-0.1 ± 0.4; 0.4	0.0 ± 0.4; 0.4	-0.3 ± 0.8; 0.8	-0.1 ± 0.6; 0.6
Co-60	-0.1 ± 0.5; 0.5	0.4 ± 0.5; 0.5	-0.0 ± 0.9; 0.9	0.4 ± 0.8; 0.8
Zn-65	0.1 ± 1.1; 1.1	-0.5 ± 1.0; 1.0	0.2 ± 1.8; 1.8	0.1 ± 1.8; 1.8
Zr/Nb-95	0.2 ± 0.4; 0.4	-0.2 ± 0.4; 0.4	0.3 ± 0.8; 0.8	0.4 ± 0.8; 0.8
Cs-134	0.5 ± 0.5; 0.5	-0.0 ± 0.5; 0.5	0.1 ± 0.8; 0.8	0.1 ± 0.8; 0.8
Cs-137	-0.1 ± 0.4; 0.4	0.1 ± 0.4; 0.4	0.2 ± 0.8; 0.8	-0.4 ± 0.8; 0.8
Ba/La-140	-0.2 ± 0.4; 0.4	-0.3 ± 0.4; 0.4	-0.5 ± 0.9; 1.0	-0.4 ± 0.6; 0.6

Date Collected	10-16-01	10-16-01	10-16-01	10-16-01
Lab Code	BDF-9370	BDF-9371	BDF-9372	BDF-9373
Type	Carp	Smallmouth Bass	Golden Redhorse	Quillback
Mn-54	-0.3 ± 0.9; 0.9	0.1 ± 0.6; 0.6	0.3 ± 0.7; 0.8	0.5 ± 0.9; 0.9
Fe-59	2.1 ± 2.1; 2.1	-2.8 ± 1.6; 1.6	1.2 ± 2.1; 2.1	2.5 ± 2.2; 2.3
Co-58	-0.4 ± 0.8; 0.8	0.1 ± 0.7; 0.7	-0.2 ± 0.8; 0.8	-0.5 ± 0.9; 0.9
Co-60	0.3 ± 0.9; 0.9	-0.5 ± 1.0; 1.0	-0.3 ± 1.0; 1.0	-1.3 ± 1.2; 1.2
Zn-65	-0.6 ± 2.4; 2.4	-3.2 ± 1.7; 1.8	1.1 ± 2.5; 2.5	1.1 ± 2.8; 2.8
Zr/Nb-95	0.8 ± 0.9; 0.9	0.2 ± 0.6; 0.6	-0.8 ± 0.8; 0.8	0.3 ± 1.1; 1.1
Cs-134	-0.1 ± 1.2; 1.2	-0.0 ± 0.9; 0.9	0.5 ± 0.8; 0.8	0.5 ± 1.2; 1.2
Cs-137	-0.1 ± 0.9; 0.9	0.3 ± 0.8; 0.8	0.7 ± 0.9; 0.9	-0.3 ± 0.9; 0.9
Ba/La-140	-0.9 ± 0.8; 0.9	-2.3 ± 1.0; 1.0	1.3 ± 0.8; 0.8	-0.7 ± 0.6; 0.6

Table 4. Fish, Edible Portions

Collection: Semiannually

ODCM-Required LLDs: Mn-54 = 0.13, Fe-59 = 0.26, Co-58 = 0.13, Co-60 = 0.13, Zn-65 = 0.26, Cs-134 = 0.1, Cs-137 = 0.1 pCi/g wet weight

Other LLDs: Zr/Nb-95 = 0.20, Ba/La-140 = 0.30 pCi/g wet weight

Units: 10^{-2} pCi/g wet weight

Sample Description and Concentration	
	BD-25 (C) Kankakee River, Upstream
Date Collected	10-16-01
Lab Code	BDF-9374
Type	Silver Redhorse
Mn-54	-0.2 ± 1.3; 1.3
Fe-59	-0.6 ± 3.1; 3.1
Co-58	0.4 ± 1.0; 1.0
Co-60	-0.6 ± 1.6; 1.6
Zn-65	1.0 ± 2.8; 2.8
Zr/Nb-95	0.2 ± 1.2; 1.2
Cs-134	0.1 ± 1.4; 1.4
Cs-137	-0.5 ± 1.4; 1.4
Ba/La-140	-0.3 ± 1.8; 1.8

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Table 4. Fish, Edible Portions

Collection: Semiannually

ODCM-Required LLDs: Mn-54 = 0.13, Fe-59 = 0.26, Co-58 = 0.13, Co-60 = 0.13, Zn-65 = 0.26, Cs-134 = 0.1, Cs-137 = 0.1 pCi/g wet weight

Other LLDs: Zr/Nb-95 = 0.20, Ba/La-140 = 0.30 pCi/g wet weight

Units: 10^{-2} pCi/g wet weight

Sample Description and Concentration

BD-28 Kankakee River, Discharge

Date Collected	05-02-01	05-02-01	05-02-01	05-02-01
Lab Code	BDF-3469	BDF-3470	BDF-3471	BDF-3472
Type	Golden Redhorse	Carp	Quillback	Channel Catfish
Mn-54	0.3 ± 0.9; 0.9	0.1 ± 0.8; 0.8	0.0 ± 0.8; 0.8	-0.6 ± 0.7; 0.7
Fe-59	-0.3 ± 1.9; 1.9	-1.0 ± 1.7; 1.7	2.0 ± 1.6; 1.6	1.2 ± 1.4; 1.4
Co-58	-1.0 ± 0.8; 0.8	0.5 ± 0.7; 0.7	0.4 ± 0.7; 0.7	0.1 ± 0.6; 0.6
Co-60	0.7 ± 1.0; 1.0	0.1 ± 0.9; 0.9	0.7 ± 0.8; 0.8	-0.3 ± 1.0; 1.0
Zn-65	-2.2 ± 2.7; 2.7	-1.0 ± 1.7; 1.7	-0.4 ± 1.9; 1.9	-0.3 ± 1.7; 1.7
Zr/Nb-95	0.5 ± 0.8; 0.8	-2.2 ± 1.4; 1.4	0.7 ± 1.4; 1.4	0.7 ± 0.7; 0.7
Cs-134	-1.2 ± 0.9; 0.9	0.6 ± 0.8; 0.8	0.0 ± 0.8; 0.8	-1.2 ± 0.8; 0.9
Cs-137	0.1 ± 0.7; 0.7	0.5 ± 0.7; 0.7	0.2 ± 0.8; 0.8	-0.1 ± 0.6; 0.6
Ba/La-140	-2.5 ± 0.6; 0.7	-1.9 ± 0.7; 0.8	-0.9 ± 1.2; 1.2	1.2 ± 0.6; 0.7

Date Collected	10-18-01	10-18-01	10-18-01	10-18-01
Lab Code	BDF-9375	BDF-9376	BDF-9377	BDF-9378
Type	Carp	Gizzard Shad	Largemouth Bass	Smallmouth Bass
Mn-54	0.4 ± 0.6; 0.6	1.0 ± 0.8; 0.8	0.4 ± 0.7; 0.7	-1.3 ± 1.2; 1.2
Fe-59	0.7 ± 1.5; 1.5	-1.1 ± 2.5; 2.5	0.4 ± 2.1; 2.1	-0.2 ± 3.2; 3.2
Co-58	0.6 ± 0.8; 0.8	0.2 ± 0.7; 0.7	-0.1 ± 0.7; 0.7	-0.4 ± 1.1; 1.1
Co-60	1.1 ± 1.1; 1.1	1.5 ± 0.9; 0.9	-0.2 ± 0.8; 0.8	-0.6 ± 1.8; 1.8
Zn-65	1.1 ± 2.1; 2.1	-2.2 ± 2.3; 2.3	-3.0 ± 2.2; 2.3	-2.6 ± 3.5; 3.5
Zr/Nb-95	0.3 ± 0.8; 0.8	-1.0 ± 0.8; 0.8	-0.9 ± 1.5; 1.5	-0.1 ± 1.0; 1.0
Cs-134	0.4 ± 1.0; 1.0	0.4 ± 0.8; 0.8	0.2 ± 0.9; 0.9	-0.2 ± 1.0; 1.0
Cs-137	1.4 ± 0.9; 0.9	0.1 ± 0.8; 0.8	-0.1 ± 0.8; 0.8	-0.4 ± 1.3; 1.3
Ba/La-140	-4.6 ± 0.8; 1.1	0.4 ± 0.6; 0.6	-3.8 ± 1.2; 1.3	-0.8 ± 0.7; 0.7

Table 4. Fish, Edible Portions

Collection: Semiannually

ODCM-Required LLDs: Mn-54 = 0.13, Fe-59 = 0.26, Co-58 = 0.13, Co-60 = 0.13, Zn-65 = 0.26, Cs-134 = 0.1, Cs-137 = 0.1 pCi/g wet weight

Other LLDs: Zr/Nb-95 = 0.20, Ba/La-140 = 0.30 pCi/g wet weight

Units: 10^{-2} pCi/g wet weight

Sample Description and Concentration	
BD-28 Kankakee River, Discharge	
Date Collected	10-18-01
Lab Code	BDF-9379
Type	Golden Redhorse
Mn-54	0.0 ± 0.9; 0.9
Fe-59	2.0 ± 2.5; 2.5
Co-58	0.2 ± 1.2; 1.2
Co-60	-0.2 ± 1.3; 1.3
Zn-65	0.2 ± 2.8; 2.8
Zr/Nb-95	-0.5 ± 1.0; 1.0
Cs-134	-0.1 ± 1.0; 1.0
Cs-137	0.1 ± 1.1; 1.1
Ba/La-140	-4.1 ± 1.2; 1.3

Table 5. Bottom Sediments

Collection: Semiannually

ODCM-Required LLDs: Cs-134 = 0.15, Cs-137 = 0.18 pCi/g dry weight

Other LLDs: Mn-54 = 0.15; Fe-59 = 0.60; Co-58,60 = 0.10; Zn-65 = 0.60; Zr/Nb-95 = 0.20; Ba/La = 0.60

Units: 10^{-2} pCi/g dry weight

Sample Description and Concentration

BD-10 Kankakee River, Downstream

Date Collected	05-10-01	10-11-01
Lab Code	BDBS-3808	BDBS-9113,4
Mn-54	0.2 ± 1.3; 1.3	0.8 ± 1.3; 1.3
Fe-59	0.5 ± 3.2; 3.2	-2.9 ± 3.1; 3.2
Co-58	1.4 ± 1.2; 1.2	0.6 ± 1.2; 1.2
Co-60	1.8 ± 1.5; 1.5	0.9 ± 1.7; 1.7
Zn-65	-1.4 ± 3.7; 3.7	-4.6 ± 3.8; 3.8
Zr/Nb-95	-5.9 ± 1.6; 1.8	-4.7 ± 1.4; 1.5
Cs-134	3.3 ± 1.7; 1.8	1.2 ± 1.5; 1.5
Cs-137	15.8 ± 2.8; 3.5	14.6 ± 3.1; 3.7
Ba/La-140	-4.0 ± 1.5; 1.6	-37.1 ± 1.7; 5.3

BD-41 Kankakee River, Downstream

Date Collected	05-10-01	10-11-01
Lab Code	BDBS-3809	BDBS-9115
Mn-54	1.9 ± 1.0; 1.1	0.1 ± 1.0; 1.0
Fe-59	0.5 ± 1.9; 1.9	1.0 ± 3.0; 3.0
Co-58	1.5 ± 0.9; 0.9	1.1 ± 1.2; 1.2
Co-60	7.1 ± 2.1; 2.3	0.1 ± 1.5; 1.5
Zn-65	0.6 ± 2.5; 2.5	-1.3 ± 2.9; 2.9
Zr/Nb-95	-3.0 ± 1.1; 1.2	-2.7 ± 1.2; 1.2
Cs-134	1.3 ± 1.1; 1.1	0.1 ± 1.4; 1.4
Cs-137	5.1 ± 2.2; 2.3	0.9 ± 1.2; 1.2
Ba/La-140	-3.2 ± 1.0; 1.1	-14.9 ± 1.4; 2.5

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Table 6. Vegetation

Collection: Annually

ODCM-Required LLDs: I-131 = 0.06, Cs-134 = 0.06, Cs-137 = 0.08 pCi/g wet weight

Other LLDs: Mn-54 = 0.05; Fe-59 = 0.10; Co-58, Co-60, Zn-65 = 0.05; Zr/Nb-95 = 0.01; Ba/La-140 = 0.02 pCi/g wet weight

Units: 10^{-2} pCi/g wet weight

Sample Description and Concentration		
	BD-Control Gorman Farm	
Date Collected	08-30-01	08-30-01
Lab Code	BDVE-7586	BDVE-7587
Type	Cabbage	Potatoes
Mn-54	-0.2 ± 0.7; 0.7	0.3 ± 0.9; 0.9
Fe-59	-1.4 ± 1.6; 1.6	0.2 ± 1.8; 1.8
Co-58	-0.0 ± 0.6; 0.6	0.0 ± 0.9; 0.9
Co-60	0.3 ± 0.8; 0.8	0.1 ± 1.4; 1.4
Zn-65	0.0 ± 1.7; 1.7	0.1 ± 2.3; 2.3
Zr/Nb-95	0.3 ± 0.7; 0.7	-0.3 ± 0.9; 0.9
I-131	-0.9 ± 0.6; 0.7	-0.3 ± 0.6; 0.6
Cs-134	-0.2 ± 0.8; 0.8	0.0 ± 1.0; 1.0
Cs-137	0.7 ± 0.8; 0.8	0.7 ± 0.9; 0.9
Ba/La-140	-0.8 ± 0.7; 0.7	-0.9 ± 0.9; 0.9
	BD-Quad 1 Clark Farm	
Date Collected	08-30-01	08-30-01
Lab Code	BDVE-7578	BDVE-7579
Type	Cabbage	Potatoes
Mn-54	-0.1 ± 0.4; 0.4	-0.1 ± 1.0; 1.0
Fe-59	-0.2 ± 0.9; 0.9	-1.0 ± 2.6; 2.6
Co-58	-0.4 ± 0.5; 0.5	-0.7 ± 1.1; 1.1
Co-60	-0.2 ± 0.5; 0.5	-0.3 ± 1.2; 1.2
Zn-65	-0.6 ± 1.0; 1.0	0.5 ± 2.8; 2.8
Zr/Nb-95	-0.2 ± 0.5; 0.5	-0.3 ± 1.0; 1.0
I-131	-0.5 ± 0.6; 0.6	0.9 ± 0.7; 0.7
Cs-134	0.0 ± 0.5; 0.5	-0.5 ± 1.1; 1.1
Cs-137	0.1 ± 0.5; 0.5	0.5 ± 1.2; 1.2
Ba/La-140	-0.2 ± 0.4; 0.4	-2.5 ± 1.3; 1.4

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Table 6. Vegetation

Collection:	Annually
ODCM-Required LLDs:	I-131 = 0.06, Cs-134 = 0.06, Cs-137 = 0.08 pCi/g wet weight
Other LLDs:	Mn-54 = 0.05; Fe-59 = 0.10; Co-58, Co-60, Zn-65 = 0.05; Zr/Nb-95 = 0.01; Ba/La-140 = 0.02 pCi/g wet weight
Units:	10^{-2} pCi/g wet weight

Sample Description and Concentration

BD-Quad 2 W.F. Soltwisch

Date Collected	08-30-01	08-30-01
Lab Code	BDVE-7580	BDVE-7581
Type	Cabbage	Potatoes
Mn-54	0.7 ± 0.7; 0.7	-0.3 ± 0.7; 0.7
Fe-59	-0.7 ± 1.5; 1.5	-1.3 ± 2.4; 2.4
Co-58	-0.3 ± 0.6; 0.6	0.3 ± 0.9; 0.9
Co-60	0.4 ± 0.8; 0.8	-0.2 ± 1.2; 1.2
Zn-65	-0.7 ± 1.6; 1.6	0.1 ± 2.1; 2.1
Zr/Nb-95	-0.3 ± 0.6; 0.6	-0.3 ± 0.9; 0.9
I-131	0.3 ± 0.6; 0.6	-0.4 ± 0.5; 0.5
Cs-134	0.2 ± 0.7; 0.7	0.3 ± 0.9; 0.9
Cs-137	0.2 ± 0.7; 0.7	0.5 ± 0.9; 0.9
Ba/La-140	-0.1 ± 0.6; 0.6	0.1 ± 1.1; 1.1

BD-Quad 3 Terri Schultz

Date Collected	08-30-01	08-30-01
Lab Code	BDVE-7582	BDVE-7583
Type	Cabbage	Potatoes
Mn-54	0.0 ± 0.4; 0.4	0.9 ± 0.5; 0.5
Fe-59	-0.2 ± 0.9; 0.9	0.2 ± 1.4; 1.4
Co-58	-0.3 ± 0.4; 0.4	-0.5 ± 0.5; 0.5
Co-60	0.0 ± 0.5; 0.5	-0.1 ± 0.7; 0.7
Zn-65	1.0 ± 1.1; 1.1	0.2 ± 1.6; 1.6
Zr/Nb-95	0.1 ± 0.4; 0.4	0.1 ± 0.5; 0.5
I-131	-0.2 ± 0.4; 0.4	0.1 ± 0.4; 0.4
Cs-134	0.2 ± 0.5; 0.5	0.3 ± 0.7; 0.7
Cs-137	0.1 ± 0.4; 0.4	0.1 ± 0.6; 0.6
Ba/La-140	-0.1 ± 0.4; 0.4	-0.1 ± 0.6; 0.6

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Table 6. Vegetation

Collection:	Annually
ODCM-Required LLDs:	I-131 = 0.06, Cs-134 = 0.06, Cs-137 = 0.08 pCi/g wet weight
Other LLDs:	Mn-54 = 0.05; Fe-59 = 0.10; Co-58, Co-60, Zn-65 = 0.05; Zr/Nb-95 = 0.01; Ba/La-140 = 0.02 pCi/g wet weight
Units:	10^{-2} pCi/g wet weight

Sample Description and Concentration

BD-Quad 4 Bruce Sinkular

Date Collected	08-30-01	08-30-01
Lab Code	BDVE-7584	BDVE-7585
Type	Beets	Beet greens
Mn-54	-0.3 ± 0.9; 0.9	0.5 ± 0.8; 0.8
Fe-59	-0.6 ± 1.6; 1.6	0.3 ± 1.7; 1.7
Co-58	0.3 ± 0.7; 0.7	0.9 ± 0.7; 0.7
Co-60	0.5 ± 0.9; 0.9	1.3 ± 1.1; 1.1
Zn-65	0.1 ± 2.0; 2.0	-2.4 ± 2.0; 2.0
Zr/Nb-95	-0.6 ± 0.8; 0.8	-0.6 ± 0.8; 0.8
I-131	-0.9 ± 0.8; 0.8	1.0 ± 0.7; 0.7
Cs-134	0.8 ± 1.0; 1.0	-0.6 ± 0.9; 0.9
Cs-137	-0.5 ± 0.8; 0.8	0.3 ± 0.8; 0.8
Ba/La-140	0.8 ± 0.9; 0.9	0.6 ± 0.5; 0.5

Table 7. Surface Water

Collection: Monthly composites of weekly collections

ODCM-Required LLDs: Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-10 Kankakee River, Downtream

2001 Collection Period	January	February	March
Lab Code	BDSW-765	BDSW-1380	BDSW-2329
Gross Beta	3.5 ± 1.4 ; 1.5	3.8 ± 1.5 ; 1.6	3.2 ± 1.5 ; 1.5
Mn-54	0.2 ± 1.7; 1.7	0.7 ± 2.7; 2.7	0.4 ± 1.3; 1.3
Fe-59	-1.1 ± 3.3; 3.3	-3.0 ± 4.9; 4.9	-1.8 ± 2.5; 2.5
Co-58	0.4 ± 1.4; 1.4	-2.6 ± 2.8; 2.8	-0.9 ± 1.4; 1.4
Co-60	-0.3 ± 1.9; 1.9	1.5 ± 2.5; 2.5	-1.5 ± 1.7; 1.8
Zn-65	-4.6 ± 3.5; 3.6	-2.4 ± 5.5; 5.6	1.2 ± 2.8; 2.9
Zr/Nb-95	-1.9 ± 4.1; 4.1	-1.8 ± 2.8; 2.8	-0.6 ± 1.6; 1.6
Cs-134	0.6 ± 1.8; 1.8	-1.4 ± 2.8; 2.8	2.0 ± 1.7; 1.8
Cs-137	-0.1 ± 1.7; 1.7	1.3 ± 2.7; 2.7	1.2 ± 1.5; 1.5
Ba/La-140	-1.5 ± 1.8; 1.8	3.2 ± 2.7; 2.8	3.1 ± 1.7; 1.8

2001 Collection Period	April	May	June
Lab Code	BDSW-3602	BDSW-4446	BDSW-5554
Gross Beta	2.4 ± 1.5 ; 1.6	2.5 ± 0.9 ; 1.0	3.8 ± 1.0 ; 1.2
Mn-54	-1.4 ± 1.8; 1.8	-0.4 ± 3.5; 3.5	-0.0 ± 1.7; 1.7
Fe-59	0.6 ± 3.0; 3.0	-3.9 ± 6.9; 6.9	-2.9 ± 3.3; 3.3
Co-58	1.1 ± 1.6; 1.6	-2.7 ± 3.5; 3.6	0.0 ± 1.9; 1.9
Co-60	-0.5 ± 1.6; 1.6	0.1 ± 4.4; 4.4	1.3 ± 1.8; 1.8
Zn-65	-1.9 ± 4.3; 4.3	10.4 ± 5.9; 6.1	2.9 ± 4.1; 4.1
Zr/Nb-95	-1.3 ± 1.8; 1.8	0.2 ± 3.3; 3.3	-1.2 ± 1.8; 1.8
Cs-134	-0.2 ± 1.9; 1.9	2.8 ± 3.4; 3.5	2.0 ± 2.1; 2.1
Cs-137	0.4 ± 2.0; 2.0	-1.1 ± 3.8; 3.8	-0.1 ± 2.2; 2.2
Ba/La-140	2.1 ± 1.9; 1.9	2.1 ± 3.8; 3.8	-3.5 ± 2.0; 2.1

Table 7. Surface Water

Collection: Monthly composites of weekly collections

ODCM-Required LLDs: Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-10 Kankakee River, Downtream

2001 Collection Period	July	August	September
Lab Code	BDSW-6729	BDSW-7624	BDSW-8720
Gross Beta	3.8 ± 1.6 ; 1.7	4.7 ± 1.2 ; 1.4	2.8 ± 1.5 ; 1.6
Mn-54	0.1 ± 1.2; 1.2	-1.8 ± 3.0; 3.0	-0.3 ± 1.4; 1.4
Fe-59	1.5 ± 2.2; 2.2	6.5 ± 4.9; 5.0	-1.8 ± 3.2; 3.2
Co-58	0.1 ± 1.2; 1.2	2.7 ± 3.3; 3.3	-1.2 ± 1.5; 1.5
Co-60	1.0 ± 1.2; 1.2	0.2 ± 4.0; 4.0	-0.6 ± 1.8; 1.8
Zn-65	0.5 ± 2.3; 2.3	-0.3 ± 6.0; 6.0	1.6 ± 3.9; 3.9
Zr/Nb-95	0.2 ± 1.2; 1.2	-1.0 ± 3.7; 3.7	-1.6 ± 1.4; 1.5
Cs-134	0.6 ± 1.5; 1.5	1.6 ± 3.6; 3.6	-0.1 ± 1.7; 1.7
Cs-137	0.7 ± 1.4; 1.4	-1.6 ± 3.1; 3.1	-0.9 ± 1.7; 1.7
Ba/La-140	-2.3 ± 1.4; 1.5	-4.0 ± 3.4; 3.4	-3.0 ± 1.8; 1.8

2001 Collection Period	October	November	December
Lab Code	BDSW-9865	BDSW-10946	BDSW-11625
Gross Beta	5.3 ± 1.7 ; 1.8	3.4 ± 1.2 ; 1.3	3.7 ± 1.5 ; 1.6
Mn-54	0.1 ± 0.5; 0.5	1.6 ± 1.2; 1.3	1.3 ± 2.2; 2.2
Fe-59	-2.0 ± 1.1; 1.1	1.0 ± 2.3; 2.3	1.7 ± 4.9; 4.9
Co-58	-0.4 ± 0.5; 0.5	-0.7 ± 1.4; 1.4	-1.2 ± 2.1; 2.1
Co-60	0.4 ± 0.6; 0.6	1.0 ± 1.4; 1.5	2.0 ± 2.5; 2.5
Zn-65	-0.1 ± 1.1; 1.1	-1.3 ± 2.9; 2.9	3.5 ± 5.4; 5.4
Zr/Nb-95	-0.9 ± 0.6; 0.6	-1.2 ± 1.6; 1.6	-2.2 ± 2.7; 2.7
Cs-134	0.3 ± 0.6; 0.6	-0.6 ± 1.8; 1.8	-1.8 ± 2.7; 2.7
Cs-137	0.8 ± 0.6; 0.6	0.7 ± 1.5; 1.5	1.5 ± 2.5; 2.5
Ba/La-140	-3.7 ± 0.7; 0.9	3.2 ± 1.2; 1.3	0.6 ± 2.8; 2.8

Table 7. Surface Water

Collection: Monthly composites of weekly collections

ODCM-Required LLDs: Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-25 (C) Kankakee River, Upstream

2001 Collection Period	January	February	March
Lab Code	BDSW-766	BDSW-1381	BDSW-2330
Gross Beta	6.9 ± 2.0 ; 2.3	5.6 ± 1.8 ; 2.0	6.3 ± 1.6 ; 1.9
Mn-54	0.3 ± 1.2; 1.2	-0.7 ± 1.7; 1.7	-1.1 ± 1.7; 1.7
Fe-59	-0.1 ± 3.0; 3.0	-3.5 ± 2.9; 2.9	4.8 ± 3.3; 3.3
Co-58	2.7 ± 1.3; 1.3	0.0 ± 1.5; 1.5	2.7 ± 1.7; 1.7
Co-60	1.0 ± 1.3; 1.3	0.2 ± 1.5; 1.5	1.0 ± 1.5; 1.5
Zn-65	0.8 ± 2.5; 2.5	-0.8 ± 3.2; 3.2	-2.1 ± 4.6; 4.6
Zr/Nb-95	-3.8 ± 2.9; 2.9	-1.8 ± 1.4; 1.4	-5.6 ± 2.1; 2.3
Cs-134	0.3 ± 1.5; 1.5	0.5 ± 1.8; 1.8	0.7 ± 1.9; 2.0
Cs-137	-0.5 ± 1.5; 1.5	0.7 ± 1.8; 1.8	0.8 ± 2.0; 2.0
Ba/La-140	-2.2 ± 1.6; 1.7	0.2 ± 1.9; 1.9	3.5 ± 2.8; 2.8

2001 Collection Period	April	May	June
Lab Code	BDSW-3603	BDSW-4447	BDSW-5555
Gross Beta	6.1 ± 1.7 ; 2.0	4.3 ± 1.0 ; 1.2	5.8 ± 1.1 ; 1.5
Mn-54	0.7 ± 2.2; 2.2	1.4 ± 2.2; 2.2	0.4 ± 1.6; 1.6
Fe-59	-4.6 ± 3.3; 3.3	3.5 ± 3.8; 3.8	1.3 ± 2.7; 2.7
Co-58	2.5 ± 2.3; 2.3	0.9 ± 1.9; 1.9	0.3 ± 1.5; 1.5
Co-60	-0.5 ± 2.5; 2.5	0.7 ± 2.4; 2.4	-0.8 ± 1.9; 1.9
Zn-65	-1.6 ± 5.0; 5.0	-3.4 ± 4.2; 4.2	1.6 ± 3.3; 3.3
Zr/Nb-95	-0.7 ± 2.2; 2.2	1.2 ± 2.0; 2.0	0.8 ± 1.6; 1.6
Cs-134	-0.3 ± 2.0; 2.0	-1.0 ± 2.4; 2.4	-0.4 ± 1.6; 1.6
Cs-137	0.0 ± 2.0; 2.0	0.0 ± 2.1; 2.1	0.5 ± 1.8; 1.8
Ba/La-140	3.6 ± 1.9; 2.0	-2.6 ± 2.5; 2.6	-1.3 ± 1.5; 1.5

Table 7. Surface Water

Collection: Monthly composites of weekly collections

ODCM-Required LLDs: Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-25 (C) Kankakee River, Upstream

2001 Collection Period	July	August	September
Lab Code	BDSW-6730	BDSW-7625	BDSW-8721
Gross Beta	3.2 ± 1.4 ; 1.4	5.8 ± 1.1 ; 1.4	4.7 ± 1.4 ; 1.6
Mn-54	-0.4 ± 1.3; 1.3	1.7 ± 1.8; 1.8	-0.5 ± 1.6; 1.6
Fe-59	3.3 ± 2.5; 2.6	1.3 ± 3.3; 3.3	-1.6 ± 3.7; 3.7
Co-58	0.5 ± 1.3; 1.3	-1.8 ± 1.8; 1.8	-0.6 ± 1.6; 1.6
Co-60	0.7 ± 1.6; 1.6	-0.6 ± 2.2; 2.2	1.4 ± 2.1; 2.1
Zn-65	-2.7 ± 2.8; 2.8	-3.7 ± 4.8; 4.8	2.6 ± 3.6; 3.6
Zr/Nb-95	0.2 ± 1.3; 1.3	0.0 ± 1.9; 1.9	0.8 ± 1.7; 1.7
Cs-134	0.8 ± 1.5; 1.5	1.7 ± 2.0; 2.0	1.7 ± 1.8; 1.8
Cs-137	0.8 ± 1.4; 1.4	0.2 ± 1.7; 1.7	1.0 ± 1.7; 1.7
Ba/La-140	-4.0 ± 1.7; 1.8	-11.8 ± 2.7; 3.2	0.5 ± 2.3; 2.3

2001 Collection Period	October	November	December
Lab Code	BDSW-9866	BDSW-10947	BDSW-11626
Gross Beta	6.4 ± 1.6 ; 1.9	5.5 ± 1.2 ; 1.5	4.9 ± 1.5 ; 1.6
Mn-54	0.3 ± 0.6; 0.6	-1.0 ± 1.7; 1.7	-0.8 ± 2.5; 2.5
Fe-59	-2.8 ± 1.3; 1.3	-3.1 ± 3.5; 3.5	-2.4 ± 3.8; 3.8
Co-58	-0.8 ± 0.6; 0.6	0.5 ± 1.6; 1.6	-0.1 ± 2.3; 2.3
Co-60	0.5 ± 0.6; 0.6	0.9 ± 1.7; 1.7	1.4 ± 1.8; 1.8
Zn-65	-1.9 ± 1.3; 1.4	-0.3 ± 3.3; 3.3	-0.9 ± 4.6; 4.6
Zr/Nb-95	-0.1 ± 0.6; 0.6	0.2 ± 1.5; 1.5	-0.1 ± 2.5; 2.5
Cs-134	-0.2 ± 0.7; 0.7	-1.8 ± 1.8; 1.8	0.9 ± 2.3; 2.3
Cs-137	0.3 ± 0.7; 0.7	1.2 ± 1.9; 1.9	2.0 ± 2.4; 2.5
Ba/La-140	2.6 ± 0.7; 0.8	1.2 ± 1.9; 1.9	-3.1 ± 2.9; 2.9

Table 7. Surface Water

Collection: Quarterly composites of weekly collections

ODCM-Required LLD: H-3 = 200 pCi/L

Units: pCi/L

2001 Collection Period	Sample Description and Concentration	
	Lab Code	Tritium
	BD-10 Kankakee River, Downtream	
1st Quarter	BDSW- 2331	57 ± 93; 94
2nd Quarter	BDSW- 5559	-49 ± 94; 94
3rd Quarter	BDSW- 8722	574 ± 103; 129
4th Quarter	BDSW- 11628	76 ± 83; 84
	BD-25 (C) Kankakee River, Upstream	
1st Quarter	BDSW- 2332	77 ± 94; 95
2nd Quarter	BDSW- 5560	31 ± 97; 97
3rd Quarter	BDSW- 8723	31 ± 81; 81
4th Quarter	BDSW- 11629	46 ± 81; 82

Table 8. Well Water

Collection: Quarterly

ODCM-Required LLDs: H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L

Units: pCi/L

Sample Description and Concentration

BD-13 Braidwood City Hall Well

Date Collected	01-11-01	04-12-01	07-12-01	10-11-01
Lab Code	BDWW-144	BDWW-2852	BDWW-5992	BDWW-9108
H-3	32 ± 90; 90	75 ± 83; 84	68 ± 89; 89	-45 ± 74; 75
Mn-54	1.3 ± 1.2; 1.2	2.0 ± 3.6; 3.6	-0.1 ± 1.1; 1.1	2.9 ± 1.7; 1.7
Fe-59	-2.2 ± 2.4; 2.4	-3.0 ± 6.1; 6.1	-0.9 ± 2.4; 2.4	2.8 ± 2.5; 2.5
Co-58	-0.8 ± 1.1; 1.1	-5.5 ± 3.5; 3.6	0.2 ± 1.1; 1.1	-0.3 ± 1.3; 1.3
Co-60	1.1 ± 1.4; 1.4	1.5 ± 3.6; 3.6	0.3 ± 1.2; 1.2	-1.0 ± 2.0; 2.0
Zn-65	-2.0 ± 2.7; 2.7	4.1 ± 6.4; 6.4	-4.9 ± 2.9; 3.0	-0.7 ± 3.4; 3.4
Zr/Nb-95	-0.9 ± 1.3; 1.3	-3.4 ± 3.4; 3.5	-1.3 ± 1.2; 1.2	-3.9 ± 3.4; 3.5
Cs-134	2.3 ± 1.4; 1.5	-1.9 ± 4.3; 4.3	1.0 ± 1.3; 1.3	-1.4 ± 2.1; 2.1
Cs-137	0.6 ± 1.2; 1.2	-2.1 ± 3.6; 3.6	-0.6 ± 1.4; 1.4	-0.1 ± 1.8; 1.8
Ba/La-140	0.4 ± 1.3; 1.4	1.4 ± 4.8; 4.8	-2.7 ± 1.3; 1.4	-1.5 ± 1.7; 1.7

BD-34 Gibson Well

Date Collected	01-11-01	04-12-01	07-12-01	10-11-01
Lab Code	BDWW-145	BDWW-2853	BDWW-5993	BDWW-9109
H-3	305 ± 102; 110	233 ± 90; 96	209 ± 95; 99	278 ± 89; 97
Mn-54	-0.1 ± 1.0; 1.0	-1.0 ± 2.0; 2.0	-0.1 ± 0.8; 0.8	1.0 ± 1.9; 1.9
Fe-59	-0.7 ± 2.0; 2.0	-1.8 ± 4.7; 4.7	-0.4 ± 1.5; 1.5	-0.5 ± 4.1; 4.1
Co-58	0.3 ± 1.2; 1.2	-0.4 ± 2.3; 2.3	-0.5 ± 0.7; 0.7	-0.5 ± 1.7; 1.7
Co-60	-0.5 ± 0.9; 0.9	-2.9 ± 2.6; 2.6	0.1 ± 0.8; 0.8	1.6 ± 2.0; 2.0
Zn-65	-1.0 ± 1.9; 1.9	7.0 ± 5.5; 5.6	-3.5 ± 1.9; 1.9	-7.6 ± 4.2; 4.3
Zr/Nb-95	-1.2 ± 1.2; 1.2	2.3 ± 2.8; 2.8	0.8 ± 0.8; 0.8	-1.0 ± 2.1; 2.1
Cs-134	0.8 ± 1.2; 1.2	-1.2 ± 2.8; 2.9	0.1 ± 0.8; 0.8	0.2 ± 2.0; 2.0
Cs-137	0.5 ± 1.0; 1.0	0.1 ± 2.1; 2.1	-0.4 ± 0.9; 0.9	-1.3 ± 2.3; 2.3
Ba/La-140	-2.3 ± 1.3; 1.4	-0.8 ± 3.2; 3.2	-2.6 ± 0.9; 1.0	-2.0 ± 2.9; 2.9

Table 8. Well Water

Collection:	Quarterly
ODCM-Required LLDs:	H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L
Units:	pCi/L

Sample Description and Concentration

BD-35 Joly Well

Date Collected	01-11-01	04-12-01	07-12-01	10-11-01
Lab Code	BDWW-146	BDWW-2854	BDWW-5994	BDWW-9110
H-3	52 ± 91; 91	90 ± 84; 85	115 ± 91; 92	-57 ± 74; 74
Mn-54	-4.5 ± 3.5; 3.6	-0.4 ± 2.6; 2.6	0.6 ± 0.7; 0.7	1.0 ± 1.5; 1.6
Fe-59	-7.8 ± 7.1; 7.2	6.6 ± 5.7; 5.8	0.4 ± 1.3; 1.3	2.4 ± 2.5; 2.5
Co-58	1.9 ± 3.7; 3.7	-0.7 ± 2.9; 2.9	0.3 ± 0.7; 0.7	1.2 ± 1.5; 1.5
Co-60	-0.7 ± 4.9; 4.9	3.6 ± 2.7; 2.8	0.1 ± 0.8; 0.8	0.9 ± 1.4; 1.4
Zn-65	3.5 ± 7.4; 7.4	-0.6 ± 5.7; 5.7	-0.7 ± 1.4; 1.4	1.5 ± 3.0; 3.0
Zr/Nb-95	1.0 ± 3.6; 3.6	-7.5 ± 3.0; 3.2	0.3 ± 0.7; 0.7	0.4 ± 1.5; 1.5
Cs-134	-1.1 ± 4.4; 4.4	-2.7 ± 3.1; 3.1	-0.1 ± 0.8; 0.8	0.1 ± 2.0; 2.0
Cs-137	0.3 ± 2.7; 2.7	0.0 ± 2.7; 2.7	0.3 ± 0.8; 0.8	1.0 ± 1.8; 1.8
Ba/La-140	-5.7 ± 4.2; 4.3	7.4 ± 3.9; 4.0	-2.1 ± 0.9; 0.9	-3.4 ± 1.8; 1.8

BD-36 Hutton Well

Date Collected	01-11-01	04-12-01	07-12-01	10-11-01
Lab Code	BDWW-147	BDWW-2855	BDWW-5995	BDWW-9111
H-3	404 ± 105; 119	360 ± 95; 107	281 ± 97; 105	465 ± 97; 115
Mn-54	2.1 ± 3.4; 3.4	-2.4 ± 2.8; 2.8	0.5 ± 0.8; 0.8	2.3 ± 1.7; 1.8
Fe-59	1.5 ± 5.8; 5.8	-1.7 ± 6.6; 6.6	0.2 ± 1.6; 1.6	2.4 ± 3.6; 3.6
Co-58	-2.8 ± 3.2; 3.2	1.9 ± 2.9; 3.0	-1.5 ± 0.8; 0.8	-1.7 ± 1.6; 1.6
Co-60	0.2 ± 2.6; 2.6	-0.8 ± 2.5; 2.5	0.2 ± 0.9; 0.9	0.2 ± 1.9; 1.9
Zn-65	-3.4 ± 5.5; 5.5	0.8 ± 4.8; 4.8	-6.6 ± 2.1; 2.3	-1.9 ± 4.1; 4.1
Zr/Nb-95	-3.1 ± 2.8; 2.8	0.9 ± 2.9; 2.9	-3.5 ± 0.9; 1.0	1.8 ± 1.6; 1.6
Cs-134	1.8 ± 3.3; 3.3	-1.0 ± 3.8; 3.8	0.3 ± 0.9; 0.9	-1.1 ± 1.9; 1.9
Cs-137	-1.2 ± 4.0; 4.0	2.6 ± 3.2; 3.2	-0.1 ± 1.0; 1.0	-0.5 ± 2.0; 2.0
Ba/La-140	-14.7 ± 4.4; 4.9	0.5 ± 2.9; 2.9	-10.3 ± 1.1; 1.8	-0.9 ± 1.9; 2.0

Table 8. Well Water

Collection:	Quarterly
ODCM-Required LLDs:	H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L
Units:	pCi/L

Sample Description and Concentration

BD-37 Nurczyk Well

Date Collected	01-11-01	04-12-01	07-12-01	10-11-01
Lab Code	BDWW-148	BDWW-2856,7	BDWW-5996	BDWW-9112
H-3	64 ± 92; 92	35 ± 58; 58	11 ± 96; 96	-51 ± 74; 74
Mn-54	0.9 ± 1.8; 1.8	1.1 ± 2.4; 2.4	0.0 ± 0.7; 0.7	-0.5 ± 1.6; 1.6
Fe-59	2.3 ± 3.7; 3.7	3.7 ± 4.2; 4.3	2.1 ± 1.4; 1.4	2.0 ± 3.0; 3.0
Co-58	1.2 ± 1.6; 1.6	2.9 ± 2.3; 2.3	-0.4 ± 0.7; 0.7	-2.1 ± 1.8; 1.8
Co-60	-0.1 ± 2.2; 2.2	0.8 ± 2.6; 2.6	-0.6 ± 0.7; 0.8	1.0 ± 1.6; 1.6
Zn-65	-2.6 ± 4.5; 4.5	-2.1 ± 4.4; 4.4	-0.1 ± 1.6; 1.6	-4.8 ± 4.0; 4.1
Zr/Nb-95	-2.4 ± 1.7; 1.7	1.8 ± 2.3; 2.3	-1.2 ± 0.7; 0.8	-0.3 ± 1.9; 1.9
Cs-134	-0.6 ± 2.0; 2.0	1.7 ± 2.4; 2.4	-0.3 ± 0.8; 0.8	1.1 ± 1.9; 1.9
Cs-137	1.1 ± 1.8; 1.8	2.8 ± 2.4; 2.4	0.2 ± 0.8; 0.8	-0.3 ± 2.0; 2.0
Ba/La-140	-1.9 ± 2.3; 2.3	-5.3 ± 2.9; 3.0	-6.9 ± 0.8; 1.3	-2.0 ± 1.8; 1.9

Table 9. Public Water

Collection:	Monthly composites of weekly collections
ODCM-Required LLDs:	Gross Beta = 4, H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr-Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba-La-140 = 15 pCi/L
Units:	pCi/L

Sample Description and Concentration

BD-22 Wilmington

2001 Collection Period	January	February	March
Lab Code	BDPW-767	BDPW-1382[a]	BDPW-2328
Gross Beta	3.2 ± 1.4 ; 1.4	7.0 ± 1.4 ; 1.8	5.0 ± 1.5 ; 1.7
H-3	280 ± 89; 96	77 ± 95; 95	45 ± 99; 99
Mn-54	0.3 ± 1.5; 1.5	0.8 ± 4.4; 4.4	-0.8 ± 3.6; 3.6
Fe-59	0.7 ± 3.4; 3.4	3.3 ± 5.5; 5.5	3.3 ± 5.8; 5.8
Co-58	-0.4 ± 1.7; 1.7	3.1 ± 3.5; 3.5	-3.6 ± 3.9; 3.9
Co-60	1.3 ± 1.8; 1.8	3.1 ± 4.2; 4.3	-1.6 ± 4.9; 4.9
Zn-65	1.7 ± 3.7; 3.8	-4.0 ± 6.7; 6.7	-6.9 ± 7.5; 7.6
Zr/Nb-95	-1.7 ± 1.5; 1.5	-1.9 ± 3.5; 3.5	0.4 ± 3.3; 3.3
Cs-134	0.9 ± 1.8; 1.8	4.1 ± 4.0; 4.1	-1.5 ± 3.9; 3.9
Cs-137	-1.3 ± 2.0; 2.0	-3.9 ± 3.6; 3.7	-2.6 ± 3.4; 3.5
Ba/La-140	2.9 ± 2.1; 2.1	1.0 ± 5.4; 5.4	2.3 ± 3.3; 3.3

2001 Collection Period	April	May	June
Lab Code	BDPW-3604	BDPW-4448	BDPW-5528
Gross Beta	2.0 ± 1.4 ; 1.4	2.4 ± 1.1 ; 1.1	2.6 ± 0.9 ; 1.0
H-3	296 ± 103; 111	621 ± 131; 155	372 ± 104; 116
Mn-54	0.9 ± 3.0; 3.0	1.6 ± 3.6; 3.6	-0.5 ± 1.5; 1.5
Fe-59	3.1 ± 5.2; 5.2	0.4 ± 4.7; 4.7	-2.9 ± 2.3; 2.3
Co-58	0.9 ± 2.8; 2.8	-1.1 ± 2.9; 2.9	0.6 ± 1.1; 1.1
Co-60	1.8 ± 2.9; 3.0	2.3 ± 3.3; 3.3	-0.4 ± 1.5; 1.5
Zn-65	1.2 ± 4.4; 4.4	-4.8 ± 7.1; 7.1	-0.6 ± 2.6; 2.6
Zr/Nb-95	1.3 ± 2.8; 2.8	3.5 ± 2.7; 2.8	-1.2 ± 1.6; 1.6
Cs-134	-1.2 ± 2.9; 2.9	-1.5 ± 4.1; 4.1	-0.3 ± 1.4; 1.4
Cs-137	2.2 ± 3.0; 3.0	0.9 ± 3.2; 3.2	-0.1 ± 1.6; 1.6
Ba/La-140	13.1 ± 2.8; 3.4	-2.8 ± 3.8; 3.8	-3.1 ± 1.8; 1.8

[a] Gross beta repeated with a result of 6.6±1.9 pCi/L.

Table 9. Public Water

Collection:	Monthly composites of weekly collections
ODCM-Required LLDs:	Gross Beta = 4, H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30, Zr-Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba-La-140 = 15 pCi/L
Units:	pCi/L

Sample Description and Concentration

BD-22 Wilmington

2001 Collection Period	July	August	September
Lab Code	BDPW-6731	BDPW-7626	BDPW-8598
Gross Beta	3.0 ± 0.8 ; 0.9	3.6 ± 0.9 ; 1.1	3.1 ± 1.4 ; 1.5
H-3	1,974 ± 141; 303	3,795 ± 183; 548	1,004 ± 115; 179
Mn-54	-2.0 ± 1.9; 1.9	1.1 ± 3.6; 3.6	-0.2 ± 0.8; 0.8
Fe-59	-0.8 ± 3.0; 3.0	0.1 ± 4.4; 4.4	-3.4 ± 1.4; 1.5
Co-58	0.9 ± 1.7; 1.7	-4.4 ± 3.5; 3.6	-0.7 ± 0.8; 0.8
Co-60	0.3 ± 2.1; 2.1	0.2 ± 2.6; 2.6	1.0 ± 0.9; 0.9
Zn-65	-3.7 ± 3.6; 3.7	-3.4 ± 5.9; 5.9	1.3 ± 1.6; 1.7
Zr/Nb-95	1.0 ± 1.7; 1.8	0.1 ± 3.4; 3.4	-0.5 ± 0.9; 0.9
Cs-134	-0.8 ± 2.2; 2.2	-1.5 ± 3.7; 3.7	0.4 ± 0.9; 0.9
Cs-137	0.1 ± 1.5; 1.5	-0.3 ± 3.6; 3.6	0.3 ± 1.0; 1.0
Ba/La-140	7.6 ± 2.1; 2.4	10.7 ± 3.7; 4.0	-4.5 ± 1.0; 1.2

2001 Collection Period	October	November	December
Lab Code	BDPW-9867	BDPW-10745	BDPW-11627
Gross Beta	3.6 ± 1.4 ; 1.5	2.7 ± 1.1 ; 1.2	2.1 ± 1.2 ; 1.3
H-3	1,194 ± 126; 206	532 ± 101; 124	139 ± 86; 88
Mn-54	0.4 ± 2.1; 2.1	-0.1 ± 2.9; 2.9	0.1 ± 1.1; 1.1
Fe-59	-4.6 ± 5.7; 5.7	0.6 ± 6.0; 6.0	0.1 ± 2.1; 2.1
Co-58	-0.4 ± 2.3; 2.3	2.0 ± 2.7; 2.7	0.5 ± 1.1; 1.1
Co-60	-0.9 ± 4.1; 4.1	0.3 ± 3.1; 3.1	-0.4 ± 1.1; 1.1
Zn-65	-3.2 ± 4.7; 4.7	3.1 ± 6.3; 6.3	-0.9 ± 2.3; 2.3
Zr/Nb-95	-0.3 ± 2.6; 2.6	0.4 ± 3.1; 3.1	0.4 ± 1.2; 1.2
Cs-134	0.8 ± 2.3; 2.3	-1.3 ± 3.5; 3.5	-0.0 ± 1.3; 1.3
Cs-137	0.1 ± 2.7; 2.7	0.4 ± 2.7; 2.7	-0.4 ± 1.3; 1.3
Ba/La-140	-9.3 ± 2.2; 2.6	-4.9 ± 4.1; 4.1	-2.0 ± 1.3; 1.4

MILCH ANIMALS, NEAREST RESIDENCES, AND NEAREST LIVESTOCK CENSUS

BRAIDWOOD

MILCH ANIMALS CENSUS, 2001

BD-17 Halpin Dairy Farm

5.6 miles, Sector K

10% or less for pasture
25% ground grain
65% green chop, hay or silage

BD-18 Biros Dairy Farm

8.7 miles, Sector N

25% pasture
25% ground grain
50% green chop

Census conducted by A. Lewis on August 21, 2001

BRAIDWOOD

NEAREST LIVESTOCK CENSUS, 2001

Nearest livestock of the Braidwood Station within a 6.2 mile radius.

Sector	Direction	Distance
A	N	2.6 miles
B	NNE	None
C	NE	0.9 miles
D	ENE	3.3 miles
E	E	2.3 miles
F	ESE	2.3 miles
G	SE	2.7 miles
H	SSE	4.1 miles
J	S	4.8 miles
K	SSW	5.3 miles
L	SW	1.2 miles
M	WSW	3.8 miles
N	W	1.6 miles
P	WNW	5.4 miles
Q	NW	None
R	NNW	None

Census conducted by A. Lewis on August 21, 2001

BRAIDWOOD

NEAREST RESIDENCE CENSUS, 2001

Nearest resident of the Braidwood Station within a 6.2 mile radius.

Sector	Direction	Distance
A	N	0.5 miles
B	NNE	1.8 miles
C	NE	0.7 miles
D	ENE	0.8 miles
E	E	0.8 miles
F	ESE	2.2 miles
G	SE	2.7 miles
H	SSE	None
J	S	4.2 miles
K	SSW	1.3 miles
L	SW	0.4 miles
M	WSW	0.5 miles
N	W	0.4 miles
P	WNW	0.4 miles
Q	NW	0.4 miles
R	NNW	0.4 miles

Census conducted by A. Lewis on August 21, 2001

4.0 TLD DATA*

*TLD Data provided by Exelon Nuclear.

Exelon Nuclear

Environmental Site Report for Braidwood

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2001	Quarter 2 2001	Quarter 3 2001	Quarter 4 2001
I. INDICATOR LOCATIONS					
a. Air Samplers					
BD-02-1	CUSTER PARK	18.0	21.0	18.0	19.0
BD-02-2	CUSTER PARK	19.0	21.0	18.0	16.0
BD-04-1	ESSEX	17.0	21.0	18.0	16.0
BD-04-2	ESSEX	17.0	18.0	18.0	17.0
BD-05-1	GARDNER	23.0	23.0	22.0	19.0
BD-05-2	GARDNER	22.0	23.0	21.0	18.0
BD-06-1	GODLEY	17.0	20.0	17.0	15.0
BD-06-2	GODLEY	18.0	18.0	18.0	16.0
BD-19-1	NEARSITE NW	20.0	19.0	20.0	17.0
BD-19-2	NEARSITE NW	20.0	22.0	19.0	18.0
BD-20-1	NEARSITE N	20.0	22.0	19.0	19.0
BD-20-2	NEARSITE N	18.0	21.0	21.0	20.0
BD-21-1	NEARSITE NE	21.0	21.0	18.0	16.0
BD-21-2	NEARSITE NE	21.0	22.0	19.0	16.0
	Air Sampler Mean ± S. D.	19.4 ±1.9	20.9 ±1.6	19.0 ±1.5	17.3 ±1.5
	Annual Air Sampler Mean ± S.D.				19.1 ±2.1
b. Inner Ring (100 Series)					
BD-101-3		19.0	21.0	19.0	20.0
BD-101-4		17.0	21.0	16.0	21.0
BD-102-1		18.0	20.0	18.0	18.0
BD-102-2		19.0	22.0	20.0	17.0
BD-103-1		21.0	20.0	18.0	21.0
BD-103-2		19.0	22.0	20.0	20.0
BD-104-1		18.0	19.0	17.0	19.0
BD-104-2		17.0	17.0	17.0	17.0
BD-105-1		19.0	18.0	18.0	20.0
BD-105-2		19.0	21.0	19.0	20.0
BD-106-1		18.0	18.0	19.0	20.0
BD-106-2		19.0	20.0	18.0	20.0
BD-107-1		19.0	17.0	19.0	17.0
BD-107-2		18.0	17.0	20.0	21.0
BD-108-1		18.0	18.0	18.0	19.0
BD-108-2		18.0	17.0	19.0	18.0
BD-109-1		21.0	22.0	23.0	19.0
BD-109-2		21.0	21.0	22.0	20.0
BD-110-1		18.0	17.0	19.0	16.0
BD-110-2		22.0	22.0	22.0	21.0
BD-111A-1		19.0	20.0	19.0	19.0
BD-111A-2		20.0	21.0	20.0	18.0

Exelon Nuclear

Environmental Site Report for Braidwood

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2001	Quarter 2 2001	Quarter 3 2001	Quarter 4 2001
b. Inner Ring (100 Series)					
BD-112-1		18.0	18.0	19.0	17.0
BD-112-1		18.0	17.0	19.0	20.0
BD-113A-1		19.0	18.0	19.0	20.0
BD-113A-2		20.0	21.0	18.0	20.0
BD-114-1		20.0	20.0	19.0	20.0
BD-114-2		20.0	20.0	18.0	21.0
BD-115-1		21.0	20.0	20.0	19.0
BD-115-2		21.0	20.0	19.0	19.0
BD-116-1		20.0	22.0	20.0	18.0
BD-116-2		21.0	21.0	19.0	17.0
	Inner Ring Mean ± S.D.	19.2 ±1.3	19.6 ±1.8	19.1 ±1.4	19.1 ±1.4
	Annual Inner Ring Mean ± S.D.				19.3 ±1.5
c. Outer Ring (200 Series)					
BD-201-1		24.0	26.0	23.0	22.0
BD-201-2		22.0	22.0	20.0	19.0
BD-202-1		19.0	21.0	18.0	18.0
BD-202-2		21.0	21.0	18.0	19.0
BD-203-1		21.0	22.0	20.0	18.0
BD-203-2		20.0	21.0	19.0	20.0
BD-204-1		20.0	19.0	18.0	18.0
BD-204-2		20.0	20.0	17.0	19.0
BD-205-1		20.0	21.0	18.0	19.0
BD-205-2		19.0	19.0	18.0	17.0
BD-206-1		21.0	22.0	19.0	20.0
BD-206-2		18.0	21.0	22.0	21.0
BD-207-1		17.0	20.0	19.0	19.0
BD-207-2		17.0	20.0	20.0	20.0
BD-208-1		17.0	20.0	19.0	19.0
BD-208-2		17.0	20.0	18.0	19.0
BD-209-1		20.0	24.0	19.0	21.0
BD-209-2		21.0	24.0	23.0	20.0
BD-210-1		18.0	23.0	18.0	18.0
BD-210-2		18.0	19.0	16.0	20.0
BD-211-1		21.0	26.0	21.0	23.0
BD-211-2		21.0	24.0	20.0	21.0
BD-212-3		17.0	21.0	20.0	17.0
BD-212-4		20.0	25.0	20.0	20.0
BD-213-3		17.0	21.0	19.0	18.0
BD-213-4		18.0	21.0	20.0	18.0
BD-214-1		18.0	21.0	19.0	18.0
BD-214-2		19.0	23.0	20.0	17.0

Exelon Nuclear

Environmental Site Report for Braidwood

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2001	Quarter 2 2001	Quarter 3 2001	Quarter 4 2001
Outer Ring (200 Series)					
BD-215-1		19.0	21.0	15.0	16.0
BD-215-2		15.0	20.0	15.0	16.0
BD-216-1		18.0	22.0	20.0	18.0
BD-216-2		20.0	23.0	22.0	19.0
	Outer Ring Mean ± S.D.	19.2 ±1.9	21.7 ±1.9	19.2 ±1.9	19.0 ±1.6
	Annual Outer Ring Mean ± S.D.				19.7 ±2.1
	INDICATOR LOCATION MEAN ± S.D.	19.2 ±1.7	20.7 ±2.0	19.1 ±1.6	18.7 ±1.7
	Annual INDICATOR MEAN ± S.D.				19.4 ±1.9
II. CONTROL LOCATIONS					
BD-03-1	COUNTY LINE ROAD	20.0	23.0	20.0	19.0
BD-03-2	COUNTY LINE ROAD	19.0	22.0	20.0	19.0
	CONTROL LOCATION MEAN ± S.D.	19.5 ±0.7	22.5 ±0.7	20.0 ±0.0	19.0 ±0.0
	Annual CONTROL LOCATION MEAN ± S.D.				20.3 ±0.7

5.0 GRAPHS OF DATA TRENDS

Air Particulates - Gross Beta

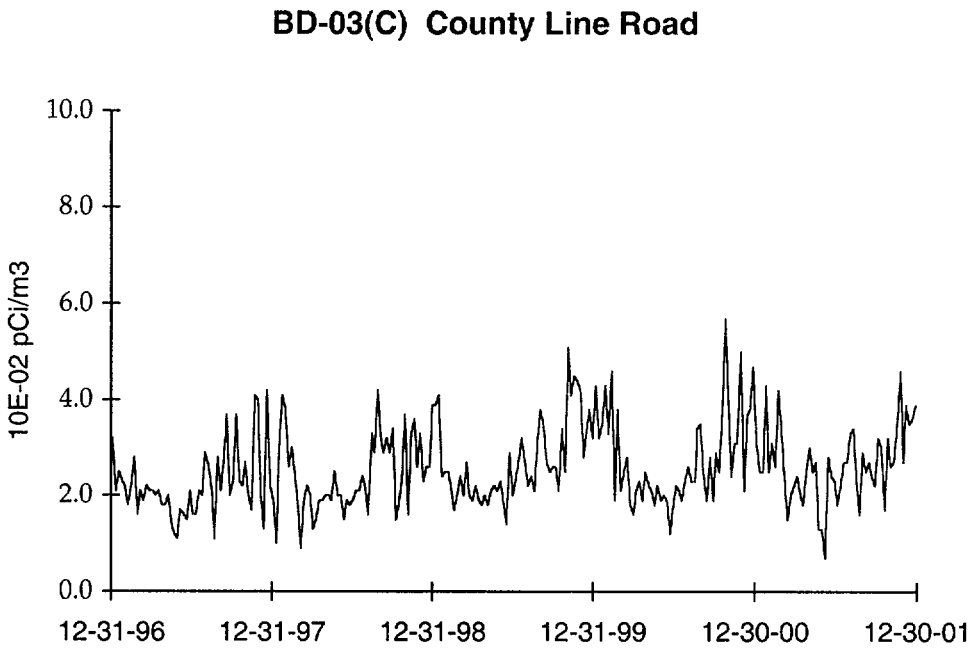

Figure 1. Continuous collection with weekly exchange of particulate filter.

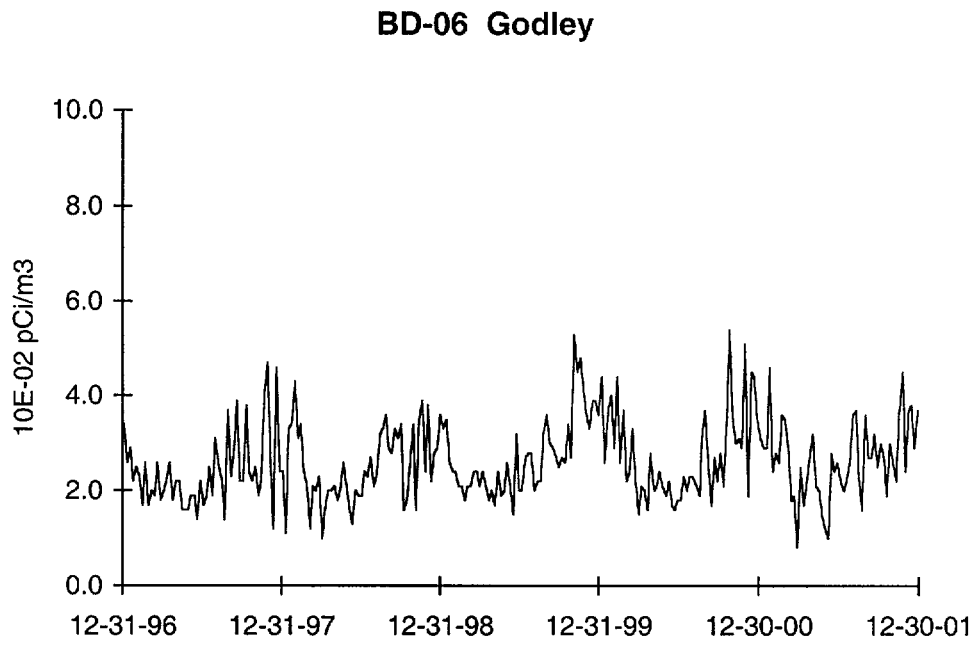

Figure 2. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

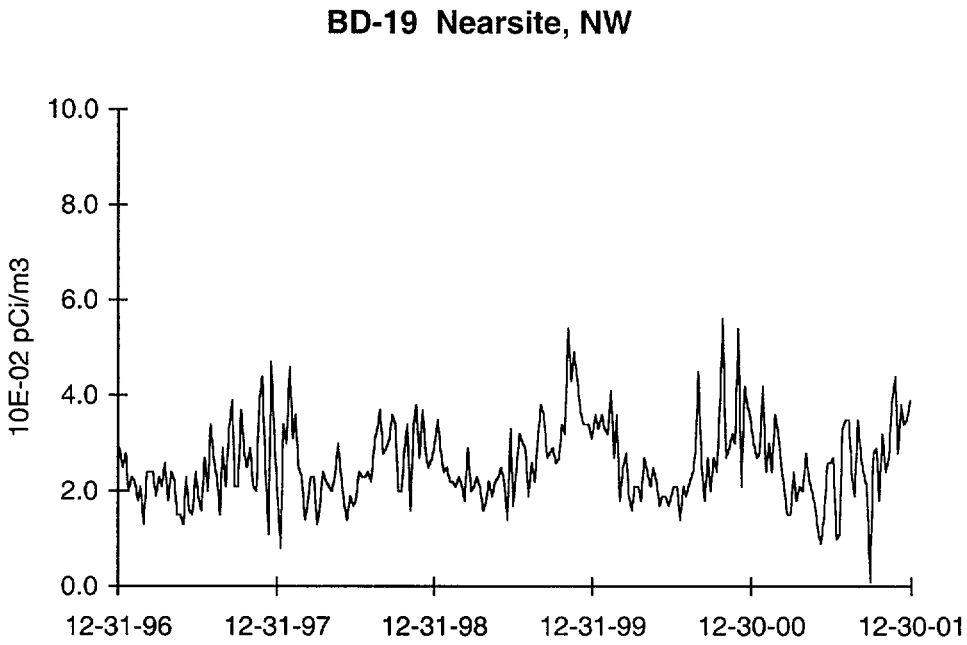

Figure 3. Continuous collection with weekly exchange of particulate filter.

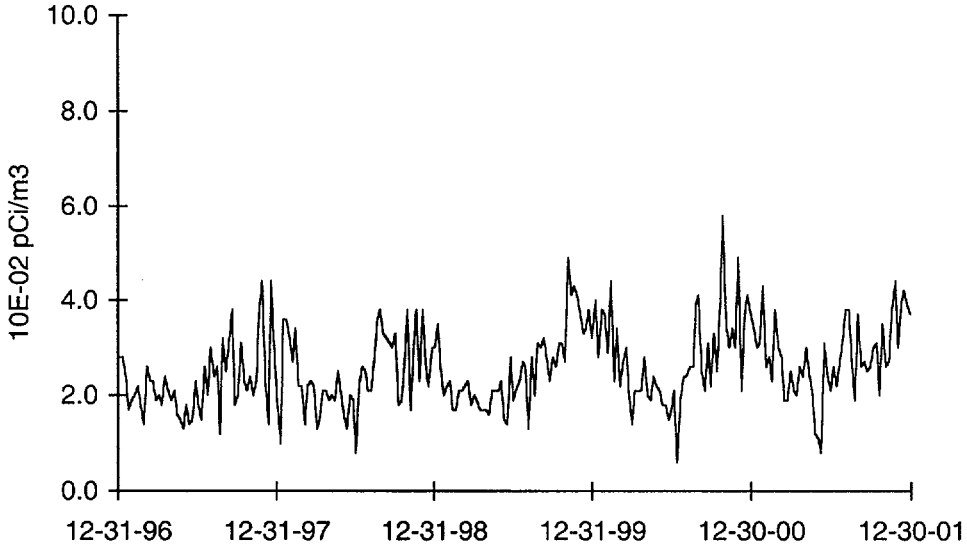

Figure 4. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

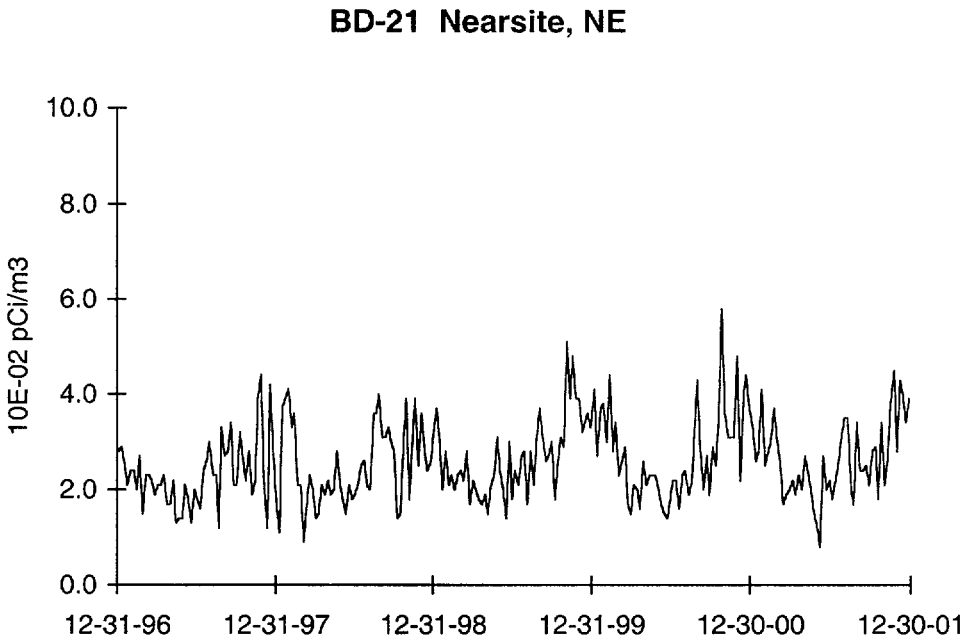

Figure 5. Continuous collection with weekly exchange of particulate filter.

Surface Water - Gross Beta

BD-10 Kankakee River, Downstream

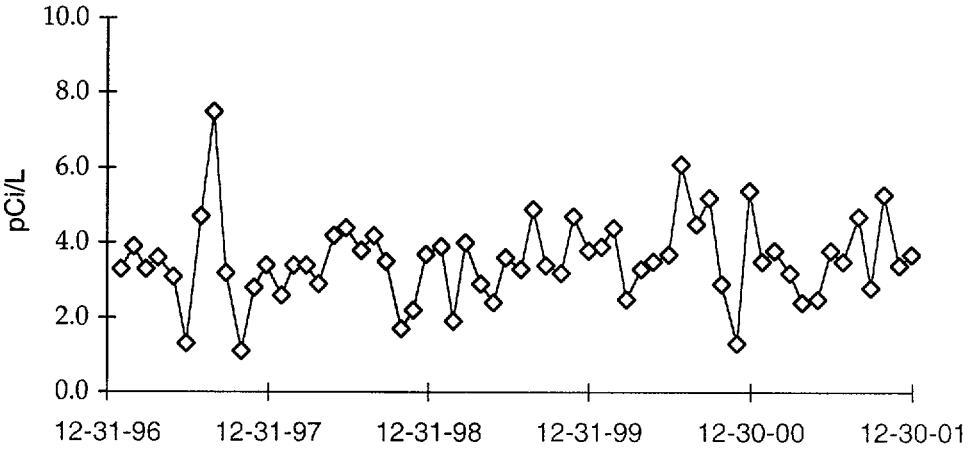

Figure 8. Monthly composites of weekly collections.

BD-25 (C) Kankakee River, Upstream

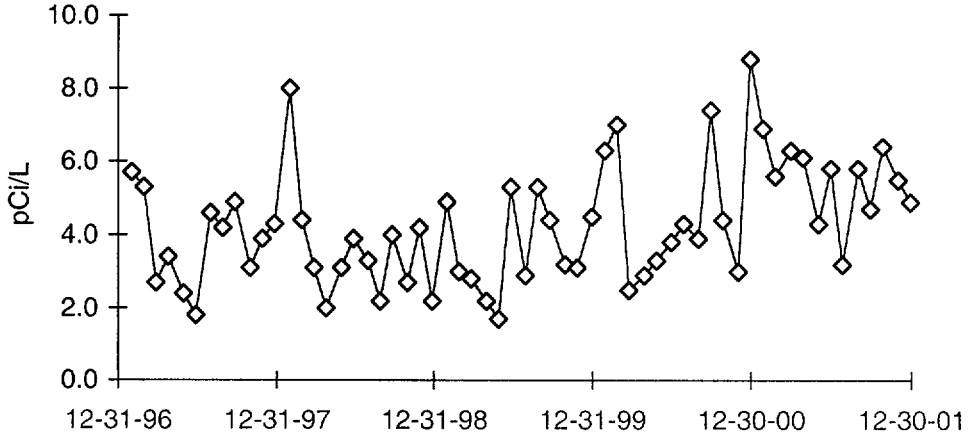

Figure 9. Monthly composites of weekly collections.

BD-10 Kankakee River, Downstream

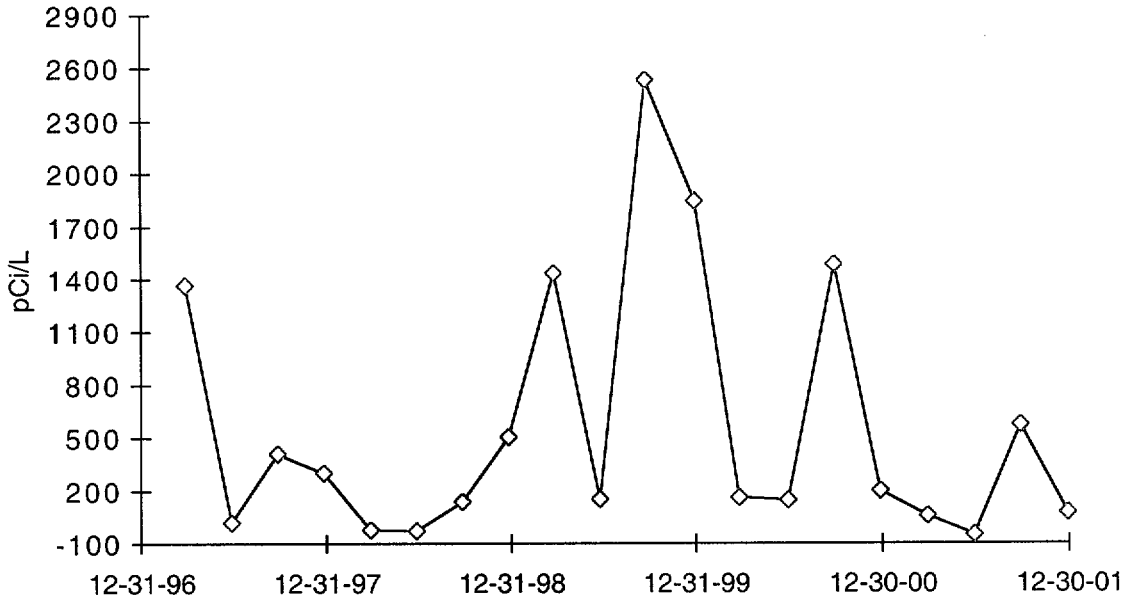

Figure 6. Quarterly composites of weekly collections.

BD-25 Kankakee River, Upstream

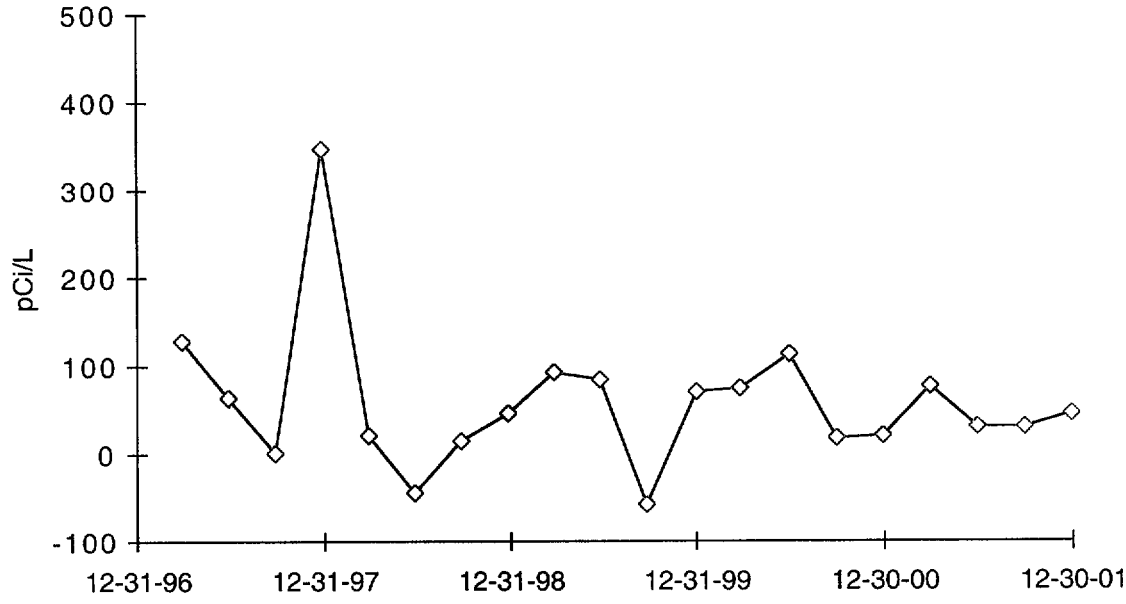

Figure 6. Quarterly composites of weekly collections.

Well Water-Tritium

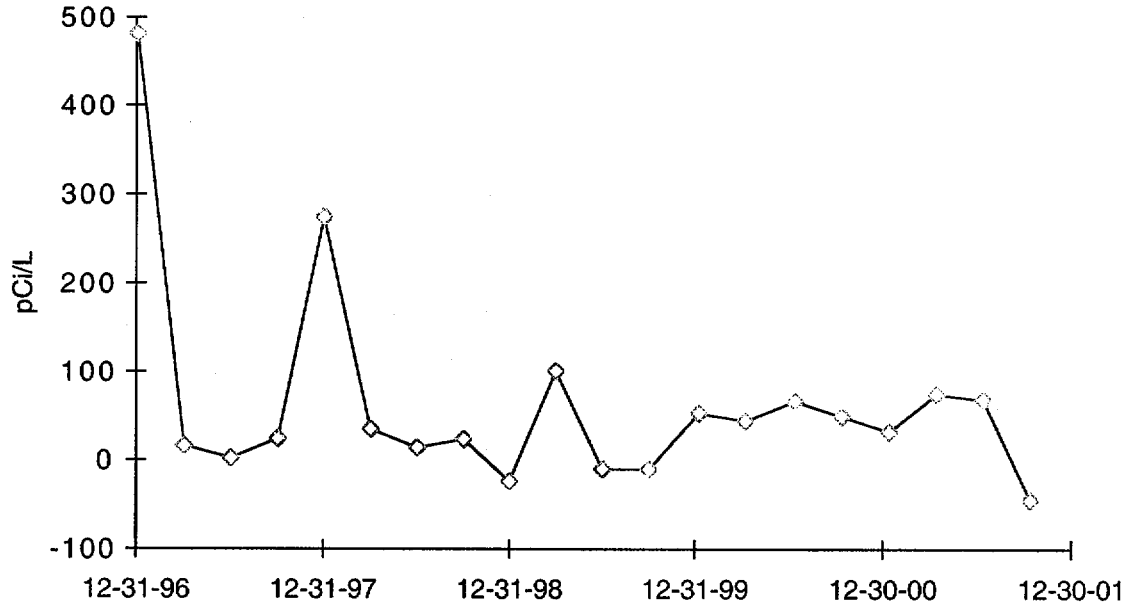

Figure 10. Quarterly collection.

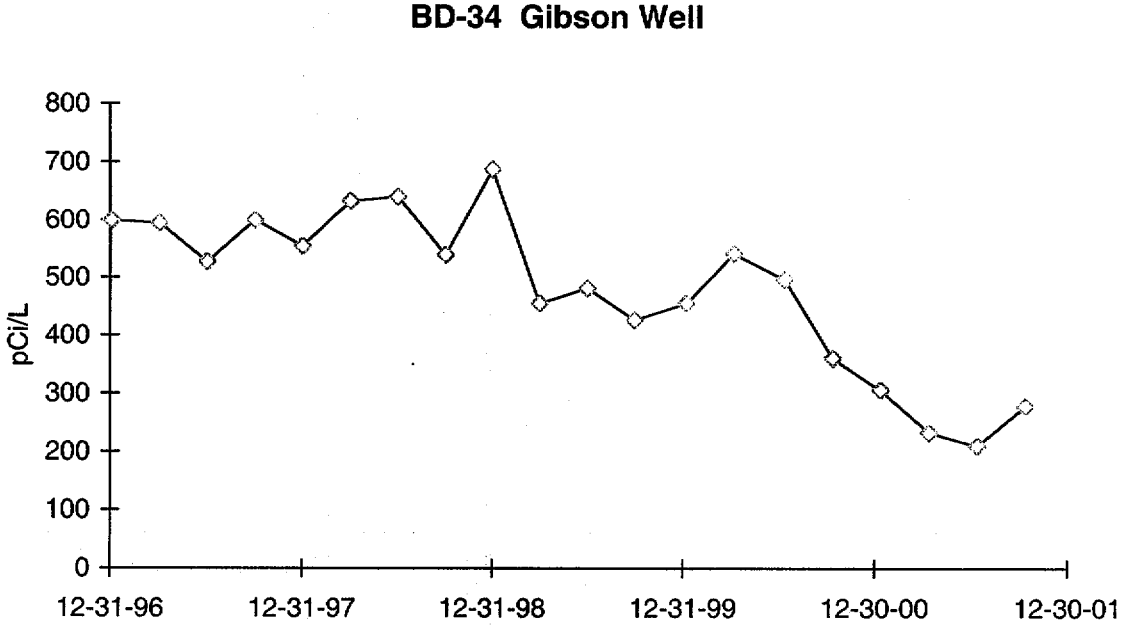

Figure 11. Quarterly collection.

Well Water-Tritium

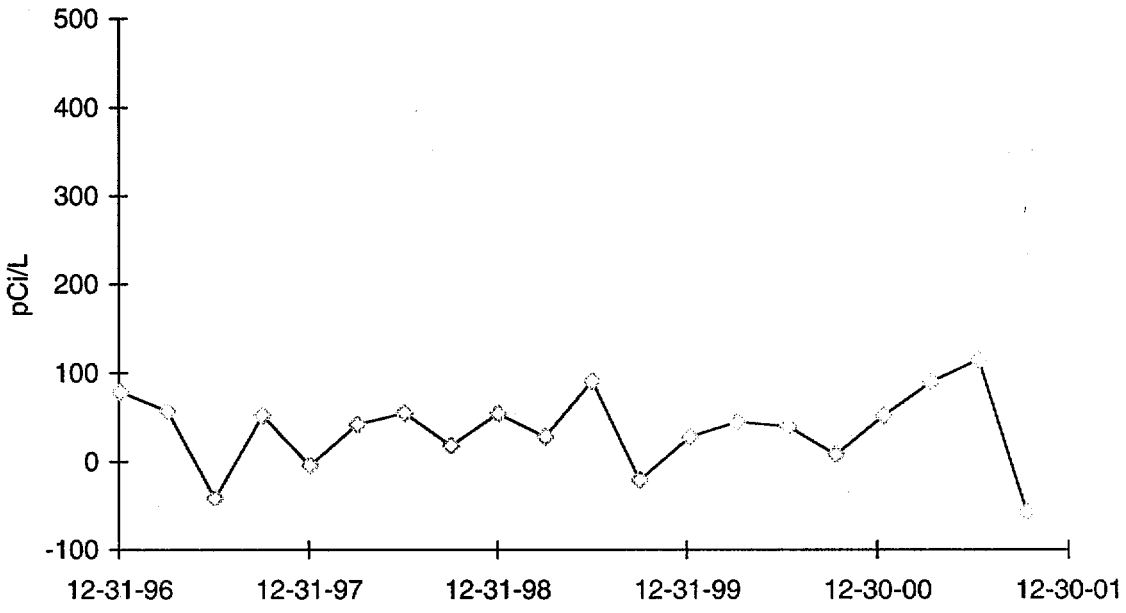

Figure 12. Quarterly collection.

Figure 13. Quarterly collection.

Well Water-Tritium

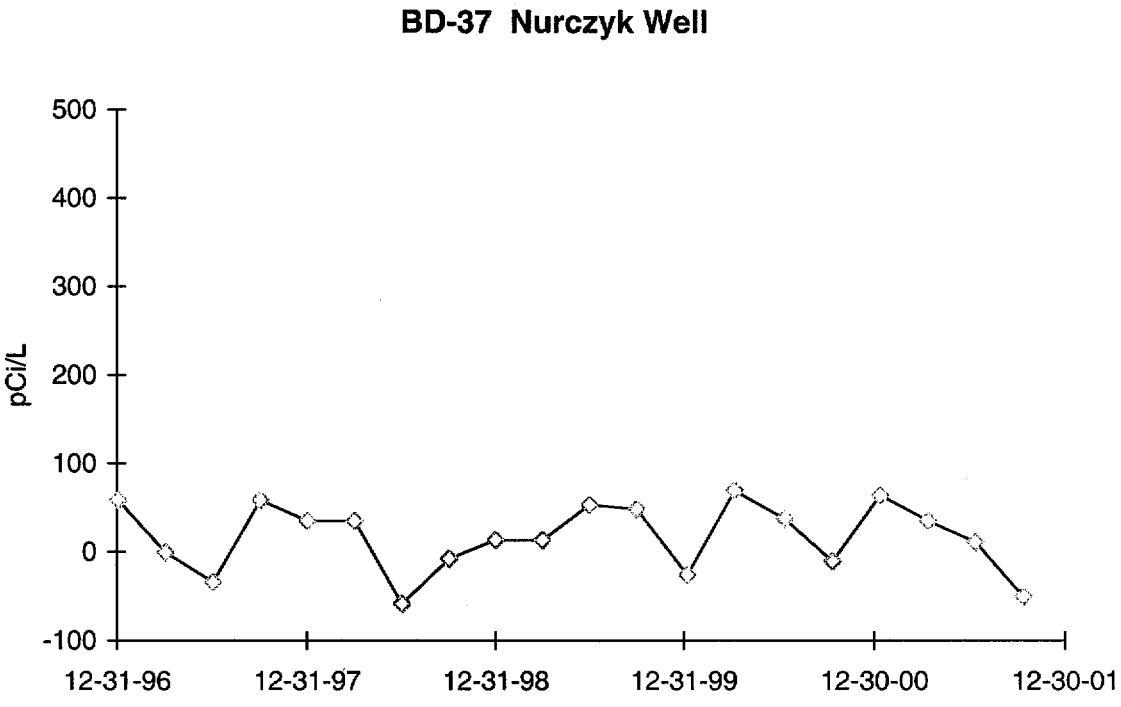

Figure14. Quarterly collection.

Public Water - Gross Beta

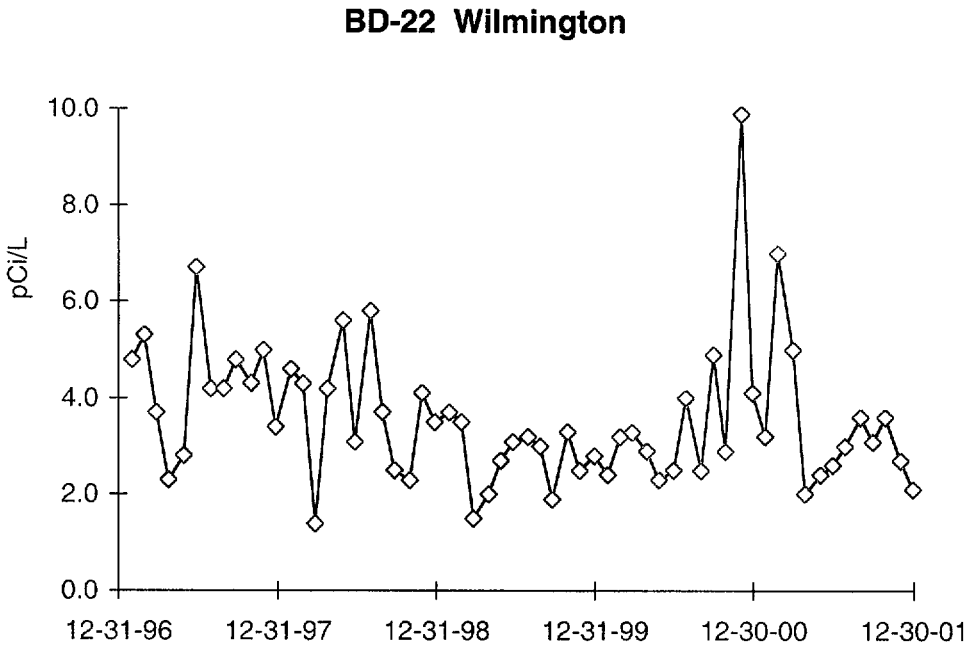

Figure 16. Monthly composites of weekly collections.

Public Water-Tritium

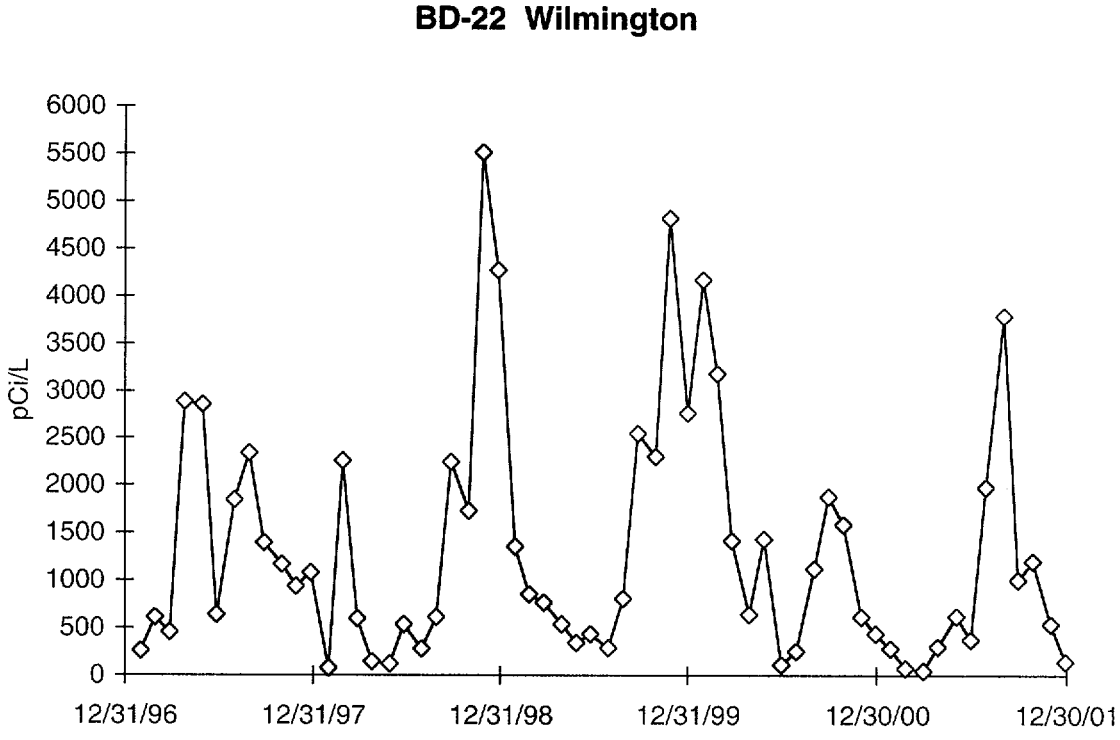

Figure 15. Monthly composites of weekly collections.

APPENDIX IV

INTERLABORATORY COMPARISON PROGRAM RESULTS

NOTE: Environmental Incorporated Midwest Laboratory participates in intercomparison studies administered by Environmental Resource Associates which serve as a replacement for studies previously conducted by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada. The results are reported annually in Appendix IV. Also reported are results of mixed analyte and Environmental Measurements Laboratory performance evaluation programs.

January, 2001 through December, 2001

Appendix IV

Interlaboratory Comparison Program Results

Enviromental Incorporated Midwest Laboratory has participated in interlaboratory comparison (crosscheck) programs since the formulation of its quality control program in December 1971. These programs are operated by agencies which supply environmental type samples (e.g., milk or water) containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on the laboratory's analytical procedures and to alert it to any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

The results in Table IV-1 were obtained through participation in the environmental sample crosscheck program for milk, water, air filters, and food samples through December 31, 2001. This program was conducted by Environmental Resource Associates and serves to replace studies formerly conducted by the U.S. Environmental Protection Agency Office of Research and Development, National Exposure Research Laboratory Characterization Research Division-Las Vegas, Nevada.

Table IV-2 lists results of the mixed analyte performance evaluation program.

Table IV-3 lists results of the Environmental Measurement Laboratory Quality Assessment Program.

Table IV-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA), comparison of ERA and Environmental, Inc. Midwest Laboratory results.[a]

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L[b]		
				ERA Result[c]	Control Limits	Laboratory results[d]
STW-897	Water	Jan, 2001	Gr. Alpha	45.7±11.4	25.9 - 65.5	31.9±2.1;4.4
STW-897	Water	Jan, 2001	Gr. Beta	16.7±5.0	8.0 - 25.4	25.3±2.7;4.7
STW-900	Water	Feb, 2001	I-131	28.3±3.0	23.1 - 33.5	27.2±0.8;2.8
STW-902	Water	Feb, 2001	Ra-226	4.7±0.7	3.4 - 5.9	4.0±0.1;0.4
STW-902	Water	Feb, 2001	Ra-228	14.4±3.6	8.2 - 20.6	13.8±0.4;1.4
STW-902	Water	Feb, 2001	Uranium	20.4±3.0	15.2 - 25.6	17.0±0.3;1.7
STW-903	Water	Mar, 2001	H-3	17800.0±1780.0	14700.0 - 20900.0	17400.0±69.7;2367.4
STW-917	Water	Apr, 2001	Gr. Alpha	56.0±14.0	31.8 - 80.2	57.4±3.5;7.8
STW-917	Water	Apr, 2001	Ra-226	17.7±2.7	13.1 - 22.3	13.5±0.4;1.4
STW-917	Water	Apr, 2001	Ra-228	8.1±2.0	4.6 - 11.6	10.1±0.6;1.2
STW-917	Water	Apr, 2001	Uranium	15.6±3.0	10.4 - 20.8	14.2±0.2;1.4
STW-918	Water	Apr, 2001	Co-60	26.4±5.0	17.7 - 35.1	27.9±1.4;4.2
STW-918	Water	Apr, 2001	Cs-134	16.9±5.0	8.2 - 25.6	16.0±0.4;2.3
STW-918	Water	Apr, 2001	Cs-137	186.0±9.3	170.0 - 202.0	195.4±1.5;28.2
STW-918	Water	Apr, 2001	Gr. Beta	340.0±51.0	252.0 - 428.0	343.0±1.7;52.9
STW-918	Water	Apr, 2001	Sr-89	64.1±5.0	55.5 - 72.8	62.8±5.7;8.5
STW-918	Water	Apr, 2001	Sr-90	33.8±5.0	25.1 - 42.5	34.2±1.6;3.8
STW-919	Water	Jun, 2001	Ba-133	36.0±5.0	27.3 - 44.7	37.8±1.2;5.6
STW-919	Water	Jun, 2001	Co-60	46.8±5.0	38.1 - 55.5	49.9±0.7;7.2
STW-919	Water	Jun, 2001	Cs-134	15.9±5.0	7.2 - 24.6	16.0±1.4;2.7
STW-919	Water	Jun, 2001	Cs-137	197.0±9.9	180.0 - 214.0	208.0±1.7;30.0
STW-919	Water	Jun, 2001	Zn-65	36.2±5.0	27.5 - 44.9	37.8±0.7;5.5
STW-920	Water	Jun, 2001	Ra-226	15.4±2.3	11.4 - 19.4	14.6±0.4;1.5
STW-920	Water	Jun, 2001	Ra-228	4.5±1.1	2.6 - 6.5	6.2±0.2;0.7
STW-920	Water	Jun, 2001	Uranium	55.7±5.6	46.1 - 65.3	49.0±1.0;5.0

Table IV-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA), comparison of ERA and Environmental, Inc. Midwest Laboratory results.[a]

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L[b] ERA Result[c]	Control Limits	Laboratory results[d]
STW-921	Water	Jul, 2001	Sr-89	31.2±5.0	22.5 - 39.9	19.8±1.5;2.5
		Delay in processing may have attributed to deviation. Result of reanalysis; Sr-89, 35.3 ± 4.4 pCi/L. Sr-90, 25.0 ± 2.8 pCi/L.				
STW-921	Water	Jul, 2001	Sr-90	25.9±5.0	17.2 - 34.6	26.3±1.1;2.9
STW-922	Water	Jul, 2001	Gr. Alpha	17.8±5.0	9.1 - 26.5	23.3±1.9;3.4
STW-922	Water	Jul, 2001	Gr. Beta	53.0±10.0	35.7 - 70.3	48.5±4.6;8.8
STW-924	Water	Aug, 2001	H-3	2730.0±356.0	2110.0 - 3350.0	2680.0±41.9;366.9
STW-931	Water	Sep, 2001	Ra-226	10.8±1.6	8.0 - 13.6	10.9±0.2;1.1
STW-931	Water	Sep, 2001	Ra-228	9.0±2.2	5.1 - 12.8	9.7±1.1;1.5
STW-931	Water	Sep, 2001	Uranium	13.1±3.0	7.9 - 18.3	11.2±0.1;1.1
STW-932	Water	Oct, 2001	I-131	7.7±2.0	4.2 - 11.2	7.7±0.3;0.8
STW-933	Water	Oct, 2001	Gr. Alpha	97.5±24.4	55.3 - 140.0	82.2±4.0;10.8
STW-933	Water	Oct, 2001	Ra-226	10.8±1.6	8.0 - 13.6	9.5±1.2;1.5
STW-933	Water	Oct, 2001	Ra-228	15.6±3.9	8.9 - 22.4	17.0±0.8;1.9
STW-933	Water	Oct, 2001	Uranium	37.2±3.7	30.7 - 43.6	32.2±1.4;3.5
STW-934	Water	Oct, 2001	Co-60	78.4±5.0	69.7 - 87.1	82.4±0.9;11.9
STW-934	Water	Oct, 2001	Cs-134	54.1±5.0	45.4 - 62.8	52.2±1.3;7.6
STW-934	Water	Oct, 2001	Cs-137	37.9±5.0	26.3 - 43.7	39.4±0.6;5.7
STW-934	Water	Oct, 2001	Gr. Beta	192.0±28.8	142.0 - 242.0	166.0±7.1;26.5
STW-934	Water	Oct, 2001	Sr-89	16.7±5.0	8.0 - 25.4	12.8±0.8;1.5
STW-934	Water	Oct, 2001	Sr-90	7.7±5.0	-1.0 - 16.4	6.8±0.7;0.9
STW-935	Water	Oct, 2001	Gr. Alpha	64.0±16.0	36.5 - 91.5	63.5±2.5;8.1
STW-935	Water	Oct, 2001	Gr. Beta	21.5±5.0	12.8 - 30.2	26.0±1.2;4.2
STW-938	Water	Nov, 2001	Ba-133	69.3±6.9	57.5 - 81.1	66.7±1.2;9.7
STW-938	Water	Nov, 2001	Co-60	59.7±5.0	51.0 - 68.4	59.3±0.6;8.6
STW-938	Water	Nov, 2001	Cs-134	93.9±5.0	85.2 - 103.0	86.7±1.5;12.6
STW-938	Water	Nov, 2001	Cs-137	42.0±5.0	33.3 - 50.7	45.0±1.0;6.6

Table IV-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA), comparison of ERA and Environmental, Inc. Midwest Laboratory results.[a]

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L[b] ERA Result[c]	Control Limits	Laboratory results[d]
STW-938	Water	Nov, 2001	Zn-65	77.3 ± 7.7	63.9 - 90.7	80.7 ± 0.6 ; 11.6

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the environmental samples crosscheck program operated by Environmental Resources Associates (ERA).

[b] All results are in pCi/L, except for elemental potassium (K) data in milk, which are in mg/L; air filter samples, which are in pCi/Filter.

[c] Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

[d] Unless otherwise indicated, the result is given as the mean ± standard deviation for three determinations. The number after the semi-colon reflect Total Propagated Uncertainty for the result.

Table IV-2. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP) [a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/kg[b] MAPEP Result[d] 1s, N=1	Control Limits	Laboratory results ± Standard Deviation[c]
STSO-923	SOIL	Jan, 2001	Am-241		0.0 - 2.6	
Included in the testing series as a "false positive". No activity expected. Result of analysis; < 0.8 Bq/L.						
STSO-923	SOIL	Jan, 2001	Co-57	103.0 ± 10.3	72.1 - 133.9	100.2 ± 3.5 ; 10.6
STSO-923	SOIL	Jan, 2001	Co-60	1,270.0 ± 127.0	889.0 - 1,651.0	1,285.1 ± 5.3 ; 128.6
STSO-923	SOIL	Jan, 2001	Cs-134	91.1 ± 9.1	63.8 - 118.4	81.1 ± 1.8 ; 8.3
STSO-923	SOIL	Jan, 2001	Cs-137	1,240.0 ± 124.0	868.0 - 1,612.0	1,210.6 ± 6.6 ; 121.2
STSO-923	SOIL	Jan, 2001	K-40	652.0 ± 65.2	456.4 - 847.6	732.6 ± 21.2 ; 76.3
STSO-923	SOIL	Jan, 2001	Mn-54	203.0 ± 20.3	142.1 - 263.9	212.6 ± 6.7 ; 22.3
STSO-923	SOIL	Jan, 2001	Pu-238	115.0 ± 11.5	80.5 - 149.5	110.7 ± 7.2 ; 13.2
STSO-923	SOIL	Jan, 2001	Pu-239/40	83.4 ± 8.3	58.4 - 108.4	79.6 ± 5.9 ; 9.9
STSO-923	SOIL	Jan, 2001	Sr-90	209.0 ± 20.9	146.3 - 271.7	159.8 ± 9.5 ; 18.6
STSO-923	SOIL	Jan, 2001	U-233/4	60.0 ± 6.0	42.0 - 78.0	45.0 ± 3.9 ; 6.0
STSO-923	SOIL	Jan, 2001	U-238	191.0 ± 19.1	133.7 - 248.3	165.6 ± 7.4 ; 18.1
STSO-923	SOIL	Jan, 2001	Zn-65	382.0 ± 38.2	267.4 - 496.6	428.5 ± 10.9 ; 44.2

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho.

[b] All results are in Bq/kg or Bq/L as requested by the Department of Energy.

[c] MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Laboratory Result[c]	EML Result[d]	Control Limits[e]
STSO-904	Soil	Mar, 2001	Ac-228	45.6 ± 4.0; 6.1	42.7 ± 1.7	0.8 - 1.5
STSO-904	Soil	Mar, 2001	Am-241	14.4 ± 0.5; 1.5	14.8 ± 0.5	0.6 - 2.6
STSO-904	Soil	Mar, 2001	Bi-212	53.2 ± 3.1; 6.2	42.0 ± 4.1	0.5 - 1.2
	Naturally-occurring radium and thorium daughters are present in the shield background, and a probable cause of the higher bias seen for isotopes of lead and bismuth.					
STSO-904	Soil	Mar, 2001	Bi-214	42.1 ± 7.7; 8.8	32.6 ± 1.4	0.8 - 1.5
STSO-904	Soil	Mar, 2001	Cs-137	1,772.6 ± 79.8; 194.4	1,740.0 ± 90.0	0.8 - 1.3
STSO-904	Soil	Mar, 2001	K-40	583.8 ± 52.6; 78.6	468.0 ± 25.0	0.8 - 1.4
STSO-904	Soil	Mar, 2001	Pb-212	46.6 ± 8.5; 9.7	41.5 ± 2.2	0.7 - 1.4
STSO-904	Soil	Mar, 2001	Pb-214	45.3 ± 8.6; 9.7	34.3 ± 1.6	0.8 - 1.5
STSO-904	Soil	Mar, 2001	Pu-239/40	26.0 ± 0.8; 2.7	25.6 ± 0.7	0.7 - 1.3
STSO-904	Soil	Mar, 2001	Sr-90	55.6 ± 2.2; 6.0	69.0 ± 5.7	0.6 - 3.9
STW-905	Water	Mar, 2001	Am-241	2.2 ± 0.1; 0.3	1.7 ± 0.1	0.8 - 1.5
STW-905	Water	Mar, 2001	Co-60	97.0 ± 0.8; 14.0	98.2 ± 3.6	0.8 - 1.2
STW-905	Water	Mar, 2001	Cs-137	70.1 ± 4.0; 10.9	73.0 ± 3.7	0.8 - 1.2
STW-905	Water	Mar, 2001	H-3	76.5 ± 5.5; 11.8	79.3 ± 2.0	0.7 - 2.3
STW-905	Water	Mar, 2001	Pu-238	1.7 ± 0.1; 0.2	1.6 ± 0.1	0.7 - 1.2
STW-905	Water	Mar, 2001	Pu-239/40	1.7 ± 0.1; 0.2	1.6 ± 0.1	0.8 - 1.3
STW-905	Water	Mar, 2001	Sr-90	3.9 ± 0.1; 0.4	4.4 ± 0.2	0.6 - 1.5
STW-905	Water	Mar, 2001	U-233/4	0.9 ± 0.1; 0.1	1.0 ± 0.1	0.8 - 1.4
STW-905	Water	Mar, 2001	U-238	0.9 ± 0.1; 0.1	1.0 ± 0.0	0.8 - 1.3
STW-906	Water	Mar, 2001	Gr. Alpha	1,724.6 ± 141.7; 253.7	1,900.0 ± 190.0	0.6 - 1.3
STW-906	Water	Mar, 2001	Gr. Beta	1,246.4 ± 31.1; 194.4	1,297.0 ± 100.0	0.6 - 1.5
STAP-907	Air Filter	Mar, 2001	Am-241	0.5 ± 0.0; 0.1	0.5 ± 0.0	0.7 - 2.4
STAP-907	Air Filter	Mar, 2001	Co-60	20.1 ± 0.2; 2.0	19.4 ± 0.5	0.8 - 1.3
STAP-907	Air Filter	Mar, 2001	Cs-134	2.7 ± 0.2; 0.3	2.8 ± 0.2	0.7 - 1.2
STAP-907	Air Filter	Mar, 2001	Cs-137	9.9 ± 0.2; 1.0	8.8 ± 0.3	0.8 - 1.4
STAP-907	Air Filter	Mar, 2001	Mn-54	7.3 ± 0.2; 0.8	6.5 ± 0.3	0.8 - 1.4
STAP-907	Air Filter	Mar, 2001	Pu-238	0.2 ± 0.0; 0.0	0.2 ± 0.0	0.7 - 1.4
STAP-907	Air Filter	Mar, 2001	Pu-239/40	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 1.3
STAP-907	Air Filter	Mar, 2001	Sr-90	7.4 ± 0.2; 0.8	7.1 ± 0.2	0.6 - 2.1
STAP-907	Air Filter	Mar, 2001	U-233/4	0.1 ± 0.0; 0.0	0.0 ± 0.0	0.8 - 1.9
STAP-907	Air Filter	Mar, 2001	U-238	0.1 ± 0.0; 0.0	0.0 ± 0.0	0.8 - 1.6
STAP-908	Air Filter	Mar, 2001	Gr. Alpha	2.7 ± 0.0; 0.3	4.0 ± 0.3	0.6 - 1.5
STAP-908	Air Filter	Mar, 2001	Gr. Beta	2.3 ± 0.0; 0.2	2.6 ± 0.2	0.8 - 1.5

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Laboratory Result[c]	EML Result[d]	Control Limits[e]
STVE-909	Vegetation	Mar, 2001	Am-241	6.1 ± 0.2; 0.6	6.2 ± 0.3	0.7 - 2.3
STVE-909	Vegetation	Mar, 2001	Cm-244	3.5 ± 0.5; 0.6	3.7 ± 0.3	0.6 - 1.6
STVE-909	Vegetation	Mar, 2001	Co-60	28.5 ± 2.1; 4.4	30.4 ± 1.2	0.8 - 1.5
STVE-909	Vegetation	Mar, 2001	Cs-137	795.5 ± 76.4; 132.4	842.0 ± 42.0	0.8 - 1.4
STVE-909	Vegetation	Mar, 2001	K-40	592.6 ± 42.5; 72.9	603.0 ± 32.0	0.8 - 1.4
STVE-909	Vegetation	Mar, 2001	Pu-239/40	8.5 ± 0.6; 1.0	9.6 ± 1.3	0.7 - 1.5
STVE-909	Vegetation	Mar, 2001	Sr-90	1,239.6 ± 130.0; 179.6	1,330.0 ± 70.0	0.5 - 1.2
STW-925	Water	Sep, 2001	Am-241	0.7 ± 0.1; 0.1	0.8 ± 0.0	0.8 - 1.5
STW-925	Water	Sep, 2001	Co-60	206.7 ± 4.7; 30.1	209.0 ± 7.6	0.8 - 1.2
STW-925	Water	Sep, 2001	Cs-137	46.6 ± 0.8; 6.8	45.1 ± 2.5	0.8 - 1.2
STW-925	Water	Sep, 2001	H-3	254.1 ± 3.6; 34.7	207.0 ± 2.7	0.7 - 2.3
STW-925	Water	Sep, 2001	Ni-63	50.9 ± 3.0; 5.9	45.3 ± 4.5	0.7 - 1.3
STW-925	Water	Sep, 2001	Pu-238	1.1 ± 0.1; 0.1	1.1 ± 0.1	0.7 - 1.2
STW-925	Water	Sep, 2001	Pu-239/40	1.6 ± 0.1; 0.2	1.6 ± 0.1	0.8 - 1.3
STW-925	Water	Sep, 2001	Sr-90	4.1 ± 0.3; 0.5	3.7 ± 0.4	0.6 - 1.5
STW-925	Water	Sep, 2001	Uranium	2.2 ± 0.2; 0.3	2.4 ± 0.1	0.7 - 1.4
STW-926	Water	Sep, 2001	Gr. Alpha	1,220.0 ± 32.0; 152.2	1,150.0 ± 115.0	0.6 - 1.3
STW-926	Water	Sep, 2001	Gr. Beta	8,461.0 ± 206.0; 1,319.2	7,970.0 ± 800.0	0.6 - 1.5
STSO-927	Soil	Sep, 2001	Ac-228	68.1 ± 1.4; 7.0	59.6 ± 2.1	0.8 - 1.5
STSO-927	Soil	Sep, 2001	Am-241	5.2 ± 1.3; 1.4	4.4 ± 0.3	0.6 - 2.6
STSO-927	Soil	Sep, 2001	Bi-212	65.1 ± 1.6; 6.7	62.1 ± 5.2	0.5 - 1.2
STSO-927	Soil	Sep, 2001	Bi-214	47.3 ± 4.7; 6.7	36.9 ± 1.5	0.8 - 1.5
STSO-927	Soil	Sep, 2001	Cs-137	659.2 ± 10.8; 66.8	612.3 ± 30.6	0.8 - 1.3
STSO-927	Soil	Sep, 2001	K-40	737.7 ± 16.6; 75.6	623.3 ± 33.0	0.8 - 1.4
STSO-927	Soil	Sep, 2001	Pb-212	64.7 ± 3.8; 7.5	58.3 ± 3.1	0.7 - 1.4
STSO-927	Soil	Sep, 2001	Pb-214	53.7 ± 7.7; 9.4	39.7 ± 1.7	0.8 - 1.5
STSO-927	Soil	Sep, 2001	Pu-239/40	9.3 ± 2.9; 3.0	8.9 ± 0.3	0.7 - 1.3
STSO-927	Soil	Sep, 2001	Sr-90	27.4 ± 6.3; 6.9	30.6 ± 1.1	0.6 - 3.9
STSO-927	Soil	Sep, 2001	Uranium	155.6 ± 7.8; 17.4	194.2 ± 3.8	0.6 - 1.4
STVE-928	Vegetation	Sep, 2001	Am-241	7.0 ± 0.3; 0.8	6.9 ± 0.4	0.7 - 2.3
STVE-928	Vegetation	Sep, 2001	Cm-244	4.3 ± 0.8; 0.9	4.3 ± 1.0	0.6 - 1.6
STVE-928	Vegetation	Sep, 2001	Co-60	40.2 ± 0.9; 5.5	35.3 ± 1.4	0.8 - 1.5
STVE-928	Vegetation	Sep, 2001	Cs-137	1,184.0 ± 2.8; 161.0	1,030.0 ± 51.8	0.8 - 1.4
STVE-928	Vegetation	Sep, 2001	K-40	1,023.0 ± 44.1; 111.4	898.7 ± 48.2	0.8 - 1.4
STVE-928	Vegetation	Sep, 2001	Pu-239/40	8.9 ± 1.4; 1.7	11.0 ± 0.4	0.7 - 1.5

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Laboratory Result[c]	EML Result[d]	Control Limits[e]
STVE-928	Vegetation	Sep, 2001	Sr-90	1,364.0 ± 18.4; 137.6	1,612.8 ± 48.6	0.5 - 1.2
STAP-929	Air Filter	Sep, 2001	Am-241	0.1 ± 30.0; 30.0	0.1 ± 0.0	0.7 - 2.4
STAP-929	Air Filter	Sep, 2001	Co-60	16.9 ± 0.3; 1.7	17.5 ± 0.5	0.8 - 1.3
STAP-929	Air Filter	Sep, 2001	Cs-134	11.8 ± 0.2; 1.2	13.0 ± 0.4	0.7 - 1.2
STAP-929	Air Filter	Sep, 2001	Cs-137	18.3 ± 0.3; 1.9	17.1 ± 0.6	0.8 - 1.4
STAP-929	Air Filter	Sep, 2001	Mn-54	85.4 ± 1.3; 8.6	81.2 ± 4.8	0.8 - 1.4
STAP-929	Air Filter	Sep, 2001	Pu-238	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 1.4
STAP-929	Air Filter	Sep, 2001	Pu-239/40	0.2 ± 0.0; 0.0	0.2 ± 0.0	0.7 - 1.3
STAP-929	Air Filter	Sep, 2001	Sr-90	3.1 ± 0.1; 0.3	3.5 ± 0.2	0.6 - 2.1
STAP-929	Air Filter	Sep, 2001	Uranium	0.2 ± 0.1; 0.1	0.2 ± 0.0	0.8 - 2.5
STAP-930	Air Filter	Sep, 2001	Gr. Alpha	6.3 ± 0.1; 0.6	5.4 ± 0.5	0.6 - 1.5
STAP-930	Air Filter	Sep, 2001	Gr. Beta	13.8 ± 0.1; 1.4	12.8 ± 1.3	0.8 - 1.5

[a] The Environmental Measurements Laboratory provides the following nuclear species : Air Filters, Soil, Vegetation and Water.

[b] Results are reported in Bq/L with the following exceptions: Air Filter results are reported in Bq/Filter, Soil results are reported in Bq/Kg, Vegetation results are reported in Bq/Kg.

[c] The EML result listed is the mean of replicate determinations for each nuclide±the standard error of the mean.

[d]The control limits are reported by EML as the ratio of Reported Value / EML value and are established from percentiles of historic data distributions (1982-1992). The evaluation of this historic data and the development of the control limits is presented in DOE report EML-564.