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May 13, 2003
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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: 2002 Annual Radiological Environmental Operating Report

Attached is the 2002 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 Ms. Kelly Root, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,

Michael J. Pacilio
Site Vice President
Braidwood Station

Attachment

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

IE25
A009

bcc: Braidwood Station Project Manager, NRR - NRC
Nicholas Reynolds - Winston & Strawn
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety
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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

2002

MAY 2003

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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 1 is designed to have a capacity of 1187 MW net. Unit 2 is designed to have a capacity of 1155 MW net. Unit No. 1 went critical on May 29, 1987, and unit No. 2 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, Kankakee 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 9.49E-02 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 1.13E+00 curies of fission and activation gases were released with a maximum quarterly average release rate of 2.17E-02 μCi/sec at Unit 1 and 4.95E-02 μCi/sec at Unit 2.

A total of 4.68E-06 curies of I-131 were released with a maximum quarterly release rate of 3.50E-07 μCi/sec.

A total of 6.44E-06 curies of beta-gamma emitters were released as airborne particulate matter with a maximum quarterly average release rate of 1.31E-07 μCi/sec at Unit 1 and 6.96E-07 μCi/sec at Unit 2. Alpha-emitting radionuclides were less than the LLD for the year.

A total of 4.60E+00 curies of tritium was released with a maximum quarterly average release rate of 2.98E-01 μCi/sec at Unit 1 and 1.21E-02 μCi/sec at Unit 2.

1.2 Liquids Released to Kankakee River

A total of 1.26E+07 liters of radioactive liquid waste (prior to dilution) containing 1.07E-01 curies (excluding tritium, noble gases, and alpha) was discharged from the station. These wastes were released at a maximum quarterly average concentration of 8.12E-09 μCi/ml. Alpha-emitting radionuclides were less than the LLD for the year. A total of 2.34+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 Envirocare disposal facility and waste processors. For detail, refer to the Braidwood Station 2002 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.

3.1.1 Noble Gases

3.1.1.1 Gamma Dose

Isodose contours based on concurrent meteorological data for gamma dose for the year are shown in Figure 3.1-1. Offsite gamma air and total body doses are shown in Table 3.1-1 and were calculated based on measured effluents and average meteorological data. Based on measured effluents and average meteorological data, the maximum total body dose to an individual would be 7.70E-03 mrem for the year (Table 3.1-1), with an occupancy or shielding factor of 0.7 used. The maximum total body dose based on measured effluents and concurrent meteorological data would be 4.55E-05 mrem (Table 3.4-1). The maximum gamma air dose was 2.30E-04 mrad (Table 3.1-1) based on measured effluents and average meteorological data and 8.08E-05 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.1.2 Beta Air and Skin Dose

The range of beta particles in air is relatively small (on the order of a few meters or less); consequently, plumes of gaseous effluents may be considered "infinite" for purpose of calculating the dose from beta radiation incident on the skin. However, the actual dose to sensitive skin tissues is difficult to calculate due to the effect of the beta particle energies, thickness of inert skin and clothing covering sensitive tissues. For purposes of this report the skin is taken to have a thickness of 7.0 mg/cm^2 and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was 1.35E-04 mrem based on concurrent meteorological data (Table 3.4-1). The maximum offsite beta air dose for the year was 1.79E-04 mrad (Table 3.1-1) based on measured effluents and average meteorological data and 1.32E-04 mrad based on concurrent meteorological data (Table 3.4-1). The air concentrations of radioactive noble gases at the offsite receptor locations are given in Figure 3.1-2.

3.1.2 Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine and the radionuclide I-131. Minimal levels of radioiodine released during routine operation of the station may be made available to man, thus resulting in a dose to the thyroid. The pathway of interest for this radionuclide is ingestion of radioiodine in milk. Calculations are performed annually but the levels released from the station in previous years indicated that contributions to doses from inhalation of I-131 and I-133, and ingestion of I-133 in milk are negligible.

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 5.51E-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 1.52E-02 mrem during the year (Table 3.1-1 [infant]).

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 5.53E-01 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 Exelon Offsite Dose Calculation Manual. The maximum whole body dose for the year was 8.72E-02 mrem and no organ dose exceeded 1.56E-02 mrem (Table 3.2-1 [adult]).

3.3 Assessment of Dose to Member of Public

During the period January to December, 2002, 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 99.5% during 2002 (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 20.2 mR at the indicator locations and 20.8 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 20.2 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, 2000 (14.7 mR) and 2001 (19.1 mR). A different style of TLD was used starting in 2001, which accounts for the higher indicated dose.

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 0.007 to 0.053 pCi/m^3 and averaged 0.028 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), 2000 (0.028 pCi/m^3) and 2001 (0.027 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-34, BD-35 and BD-37 remained below the LLD level of 200 pCi/L. Tritium levels at BD-36 averaged 273 pCi/L with a fourth quarter high of 371 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 3.4 pCi/L with a range of 1.7-5.6 pCi/L; concentrations at BD-25 averaged 4.5 pCi/L with a range of 2.6-7.0 pCi/L. Gross beta concentrations at BD-22 averaged 3.0 pCi/L with a range of 2.1-4.9 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 fourth quarter level of 292 pCi/L. Tritium concentrations in public water samples (BD-22) averaged 1,144 pCi/L with a range of 48-3,585 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 2001.

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 2001.

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 2002.

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 27, 2002.

Results of the milch animal and nearest cattle census are presented on pages 38 and 39 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 27, 2002.

Results of the nearest residence census are presented on page 40 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 2002.

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2002
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	7.59E-02	1.71E-01	8.03E-02	9.29E-02	4.20E-01
2. Average Release Rate	uCi/sec	9.76E-03	2.17E-02	1.01E-02	1.17E-02	1.33E-02
B. Iodine Releases						
1. Total I-131 Activity	Ci	<LLD	8.82E-07	<LLD	1.05E-06	1.93E-06
2. Average Release Rate	uCi/sec	<LLD	1.12E-07	<LLD	1.32E-07	6.13E-08
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	<LLD	1.03E-06	<LLD	<LLD	1.03E-06
2. Average Release Rate	uCi/sec	<LLD	1.31E-07	<LLD	<LLD	3.27E-08
3. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
D. Tritium Releases						
1. Total Release Activity	Ci	4.71E-01	7.51E-01	7.61E-01	2.37E+00	4.35E+00
2. Average Release Rate	uCi/sec	6.06E-02	9.55E-02	9.57E-02	2.98E-01	1.38E-01
E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.						
1. Total Release Activity	Ci	4.71E-01	7.51E-01	7.61E-01	2.37E+00	4.35E+00

Table 1.1-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2002
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	3.85E-01	2.26E-01	4.76E-02	5.18E-02	**7.10E-01**
2. Average Release Rate	uCi/sec	4.95E-02	2.87E-02	5.99E-03	6.52E-03	**2.25E-02**
B. Iodine Releases						
1. Total I-131 Activity	Ci	<LLD	2.75E-06	<LLD	<LLD	**2.75E-06**
2. Average Release Rate	uCi/sec	<LLD	3.50E-07	<LLD	<LLD	**8.72E-08**
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	<LLD	5.41E-06	<LLD	<LLD	**5.41E-06**
2. Average Release Rate	uCi/sec	<LLD	6.96E-07	<LLD	<LLD	**1.72E-07**
3. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	**<LLD**
D. Tritium Releases						
1. Total Release Activity	Ci	9.14E-02	2.54E-02	3.92E-02	9.63E-02	**2.52E-01**
2. Average Release Rate	uCi/sec	1.18E-02	3.23E-03	4.93E-03	1.21E-02	**7.99E-03**
E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.						
1. Total Release Activity	Ci	9.14E-02	2.54E-02	3.92E-02	9.63E-02	**2.52E-01**

Table 1.2-1

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2002
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	1.37E-02	2.39E-02	1.19E-02	3.81E-03	**5.33E-02**
2. Average Concentration Released	uCi/ml	5.66E-09	8.12E-09	3.68E-09	1.16E-09	4.48E-09
B. Tritium						
1. Total Activity Released	Ci	2.31E+02	2.25E+02	2.21E+02	4.94E+02	**1.17E+03**
2. Average Concentration Released	uCi/ml	9.54E-05	7.65E-05	6.84E-05	1.50E-04	9.85E-05
3. % of Limit (1E-3 uCi/ml)	%	9.54E+00	7.65E+00	6.84E+00	1.50E+01	9.85E+00
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	1.87E-04	2.14E-03	8.91E-05	1.23E-04	**2.54E-03**
2. Average Concentration Released	uCi/ml	7.72E-11	7.27E-10	2.76E-11	3.74E-11	2.14E-10
3. % of Limit (2E-4 uCi/ml)	%	3.86E-05	3.64E-04	1.38E-05	1.87E-05	1.07E-04
D. Gross Alpha						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	**<LLD**
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	<LLD
E. Volume of Releases						
1. Volume of Liquid Waste to Discharge	liters	1.29E+06	2.17E+06	1.81E+06	1.02E+06	**6.29E+06**
2. Volume of Dilution Water	liters	2.42E+09	2.94E+09	3.23E+09	3.29E+09	**1.19E+10**

Table 1.2-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2002
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	1.37E-02	2.39E-02	1.19E-02	3.81E-03	**5.33E-02**
2. Average Concentration Released	uCi/ml	5.66E-09	8.12E-09	3.68E-09	1.16E-09	4.48E-09
B. Tritium						
1. Total Activity Released	Ci	2.31E+02	2.25E+02	2.21E+02	4.94E+02	**1.17E+03**
2. Average Concentration Released	uCi/ml	9.54E-05	7.65E-05	6.84E-05	1.50E-04	9.85E-05
3. % of Limit (1E-3 uCi/ml)	%	9.54E+00	7.65E+00	6.84E+00	1.50E+01	9.85E+00
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	1.87E-04	2.14E-03	8.91E-05	1.23E-04	**2.54E-03**
2. Average Concentration Released	uCi/ml	7.72E-11	7.27E-10	2.76E-11	3.74E-11	2.14E-10
3. % of Limit (2E-4 uCi/ml)	%	3.86E-05	3.64E-04	1.38E-05	1.87E-05	1.07E-04
D. Gross Alpha						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	<LLD
E. Volume of Releases						
1. Volume of Liquid Waste to Discha	liters	1.29E+06	2.17E+06	1.81E+06	1.02E+06	**6.29E+06**
2. Volume of Dilution Water	liters	2.42E+09	2.94E+09	3.23E+09	3.29E+09	**1.19E+10**

Figure 3.1-1

Estimated Cumulative Gamma Dose (In mrem)
from the Braidwood Station for the period
January-December 2002

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

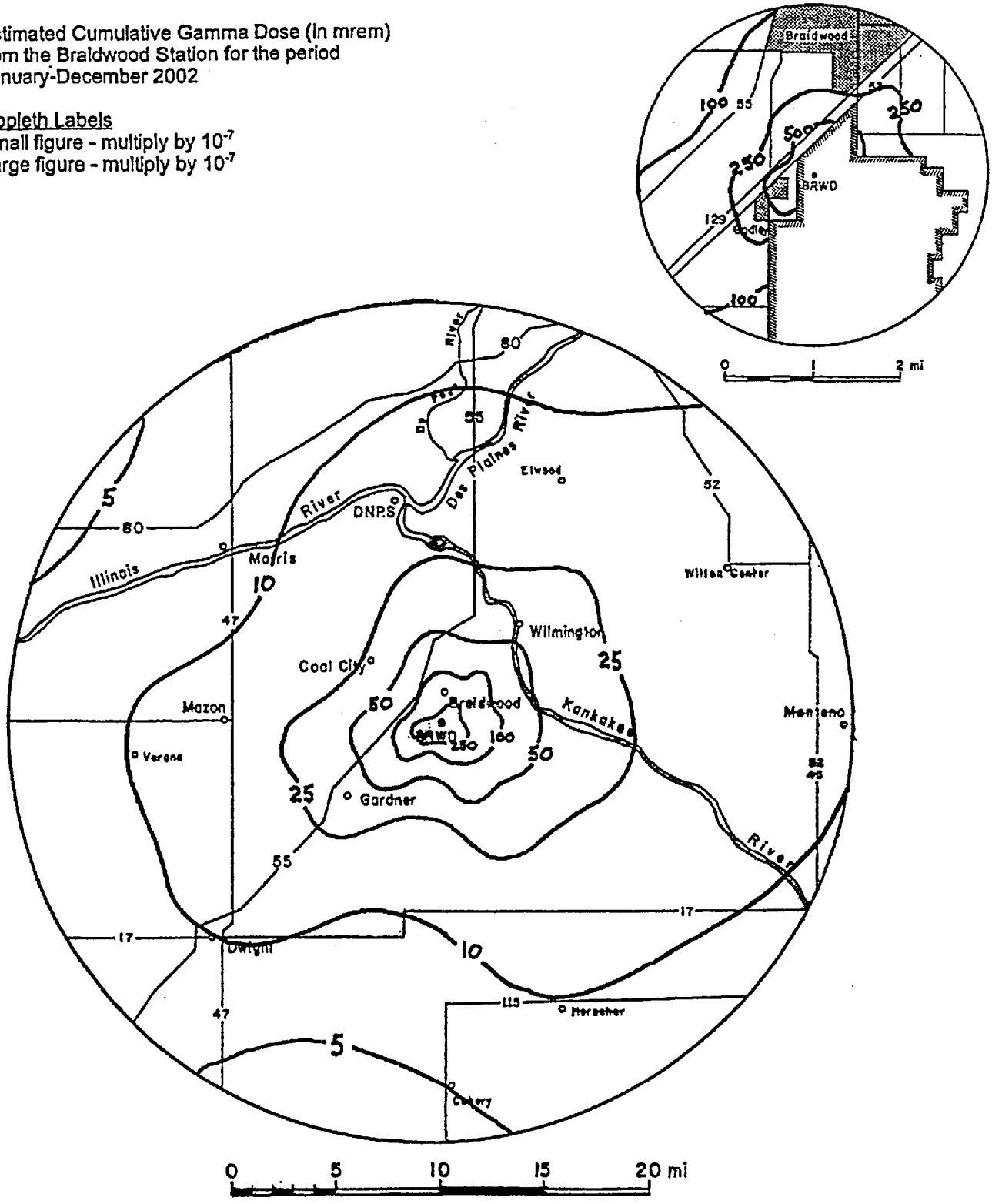


Figure 3.1-2

Estimated Total Concentrations (in pCi/m3)
of Noble Gases from the Braidwood Station
for the period January-December 2002

Isopleth Labels
Small figure - multiply by 10^{-3}
Large figure - multiply by 10^{-4}

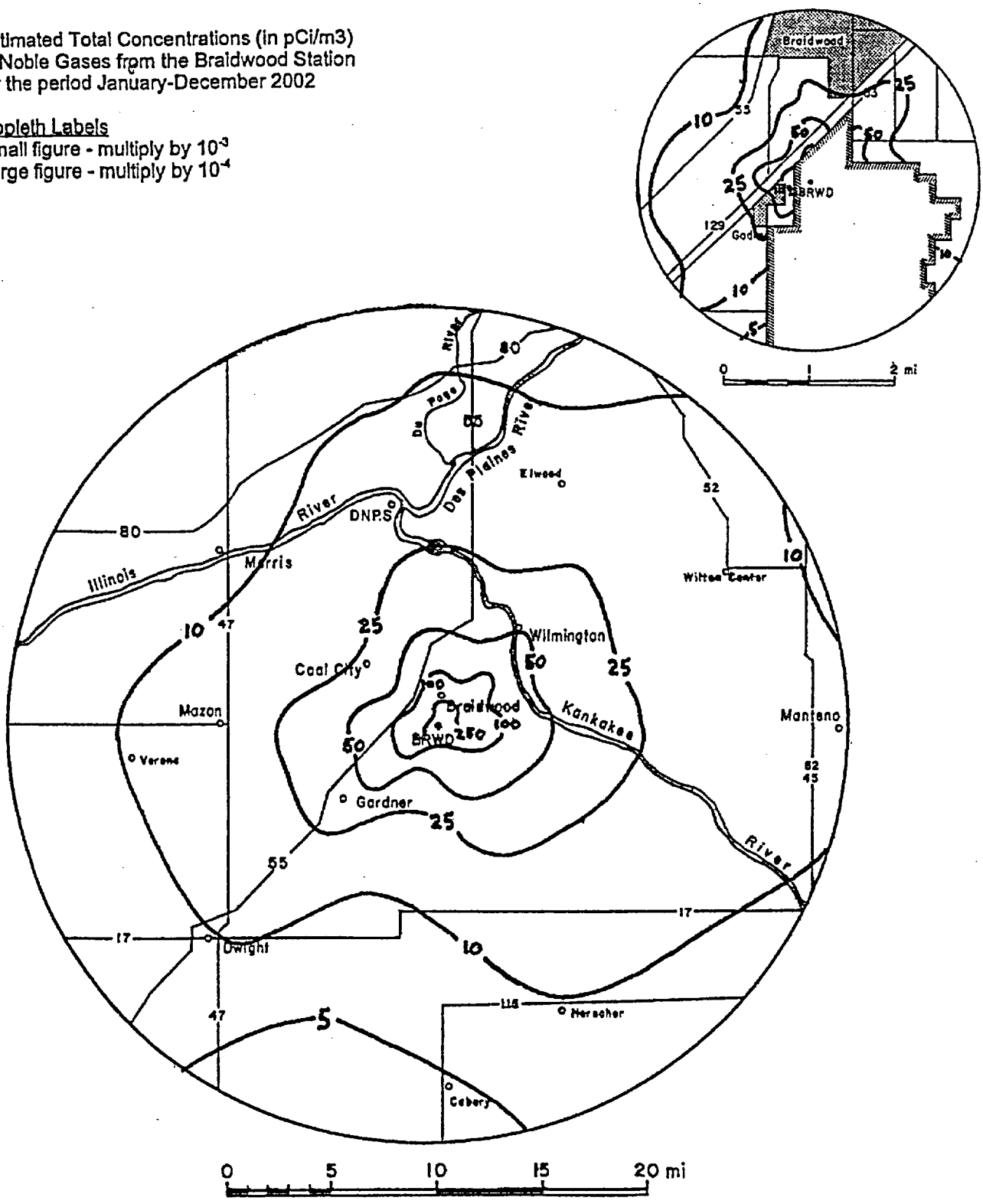


Figure 3.1-3

Estimated Total Concentrations (in pCi/m3)
of Iodines from the Braidwood Station for
the period January-December 2002

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

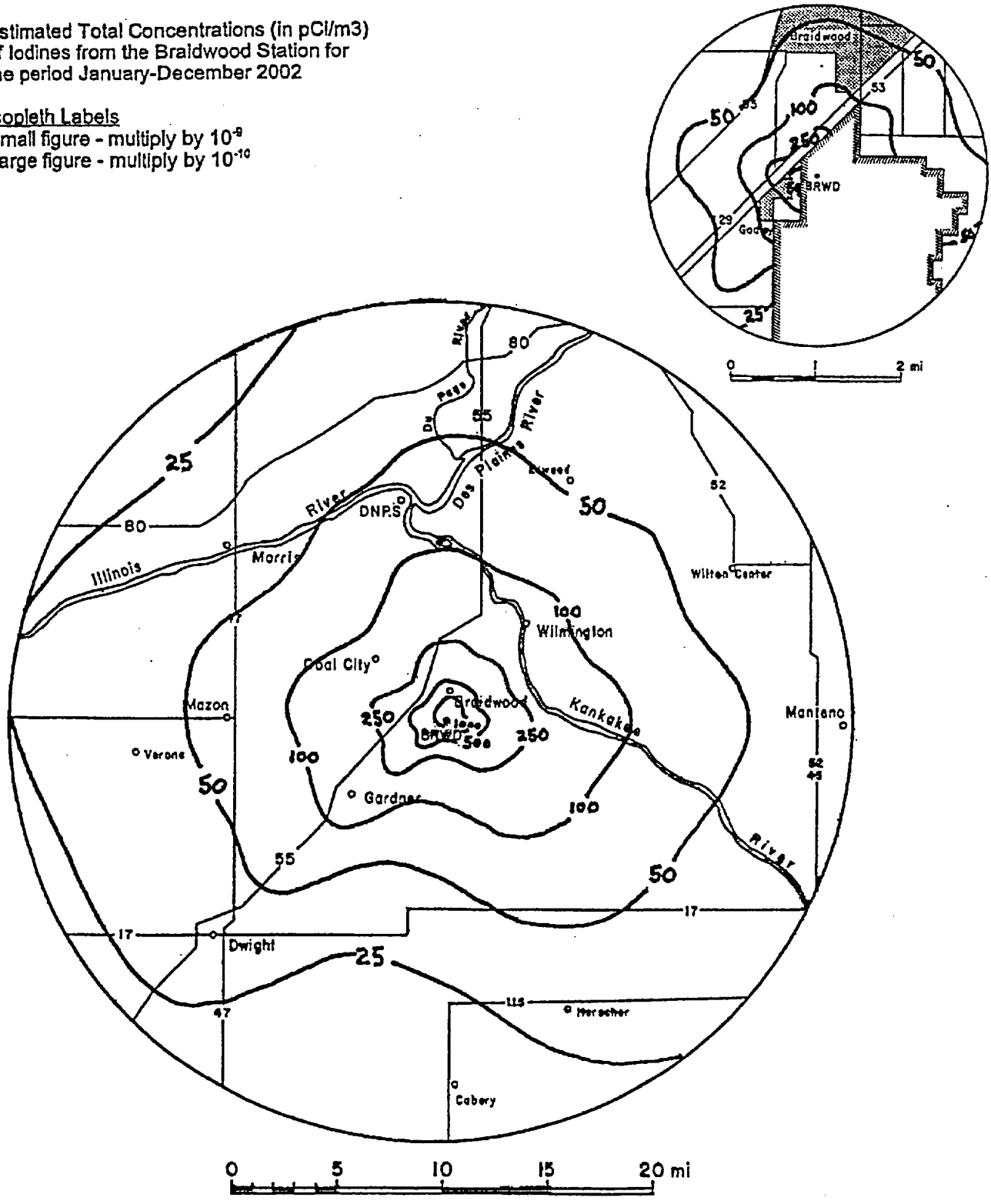


Figure 3.1-4

Estimated Total Concentrations (in pCi/m3)
of Particulates from the Braidwood Station
for the period January-December 2002

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

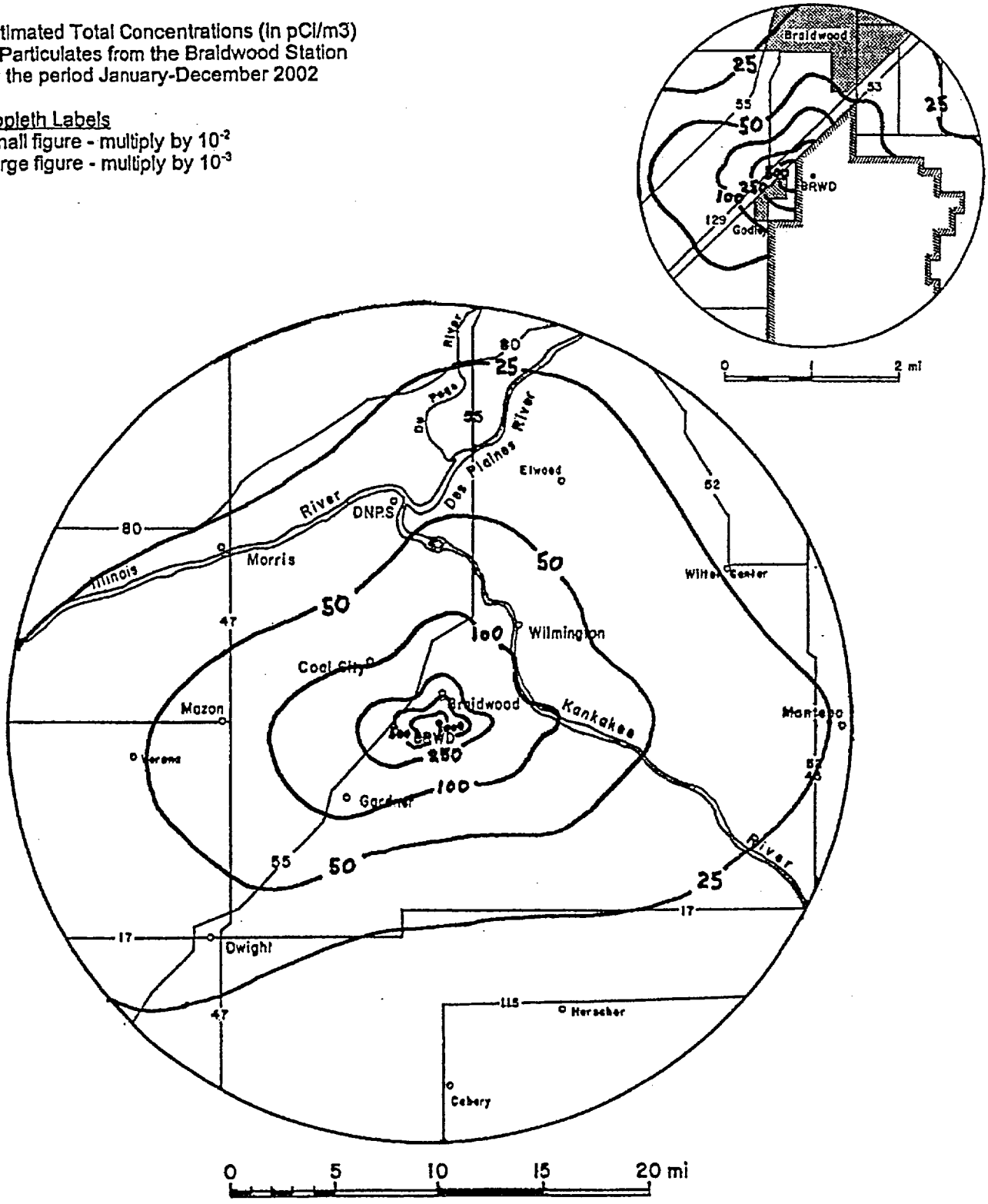


Table 3.1-1

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Braidwood Unit 1, 2002

Report for: 2002
Unit Range - From: 1 To: 1

=== I&P DOSE LIMIT ANALYSIS ========== ANNUAL 2002 ==========

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2002 - Admin. Any Organ	INFANT	THYROID	5.36E-03	1.13E+01	4.76E-02
2002 - Admin. Total Body	CHILD	TBODY	9.86E-04	1.05E+01	9.40E-03
2002 - T.Spc. Any Organ	INFANT	THYROID	5.36E-03	1.50E+01	3.57E-02

Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA
Critical Pathway: Grs/Goat/Milk (GMILK)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	1.43E+01
CO-58	1.26E-02
I-131	8.55E+01
I-133	1.84E-01

2002 - T.Spc. Total Body	CHILD	TBODY	9.86E-04	1.50E+01	6.58E-03

Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA
Critical Pathway: Vegetation (VEG)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.95E+01
CO-58	1.20E-01
I-131	3.51E-01
I-133	1.04E-03

Table 3.1-1 (continued)

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Braidwood Unit 1, 2002

Report for: 2002
Unit Range - From: 1 To: 1

=== NG DOSE LIMIT ANALYSIS ANNUAL 2002

Annual - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
2002 - Admin. Gamma	1.15E-04	7.50E+00	1.54E-03
2002 - Admin. Beta	8.97E-05	1.50E+01	5.98E-04
2002 - T.Spc. Gamma	1.15E-04	1.00E+01	1.15E-03

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

Nuclide	Percentage
AR-41	9.34E+01
KR-85M	4.68E-02
XE-135	2.78E+00
XE-133	3.75E+00

2002 - T.Spc. Beta	8.97E-05	2.00E+01	4.48E-04

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

Nuclide	Percentage
AR-41	6.90E+01
KR-85M	1.57E-01
XE-135	7.46E+00
XE-133	2.34E+01

Table 3.1-1 (continued)

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Braidwood Unit 2, 2002

Report for: 2002
Unit Range - From: 2 To: 2

=== I&P DOSE LIMIT ANALYSIS ========== ANNUAL 2002 ==========

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2002 - Admin. Any Organ	INFANT	THYROID	9.81E-03	1.13E+01	8.72E-02
2002 - Admin. Total Body	CHILD	TBODY	6.71E-03	1.05E+01	6.39E-02
2002 - T.Spc. Any Organ	INFANT	THYROID	9.81E-03	1.50E+01	6.54E-02

Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA
Critical Pathway: Grs/Goat/Milk (GMILK)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	5.32E+01
CO-58	6.87E-03
I-131	4.67E+01
I-133	1.00E-01

2002 - T.Spc. Total Body	CHILD	TBODY	6.71E-03	1.50E+01	4.47E-02

Receptor: 5 Composite Crit. Receptor - IP
Distance: 0.00 (meters) Compass Point: NA
Critical Pathway: Vegetation (VEG)
Major Contributors (0% or greater to total)

Nuclide	Percentage
H-3	9.99E+01
CO-58	1.77E-02
I-131	5.16E-02
I-133	1.53E-04

Table 3.1-1 (continued)

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

GASEOUS DOSE SUMMARY

Braidwood Unit 2, 2002

Report for: 2002
Unit Range - From: 2 To: 2

=== NG DOSE LIMIT ANALYSIS ========== ANNUAL 2002 ==========

Annual - Limit	Dose (mrad)	Limit (mrad)	Max % of Limit
2002 - Admin. Gamma	1.15E-04	7.50E+00	1.54E-03
2002 - Admin. Beta	8.97E-05	1.50E+01	5.98E-04
2002 - T.Spc. Gamma	1.15E-04	1.00E+01	1.15E-03

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

Nuclide	Percentage
AR-41	9.34E+01
KR-85M	4.68E-02
XE-135	2.78E+00
XE-133	3.75E+00

2002 - T.Spc. Beta	8.97E-05	2.00E+01	4.48E-04

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

Nuclide	Percentage
AR-41	6.90E+01
KR-85M	1.57E-01
XE-135	7.46E+00
XE-133	2.34E+01

Table 3.2-1

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Braidwood Unit 1, 2002

Report for: 2002
Unit Range - From: 1 To: 1

Liquid Receptor

=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ========== ANNUAL 2002 =========

Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	1.98E-03	3.95E-02	3.74E-02	4.13E-02	3.72E-02	7.79E-02	0.00E+00	3.89E-02
TEEN	2.13E-03	2.94E-02	2.71E-02	2.74E-02	2.70E-02	5.59E-02	0.00E+00	2.83E-02
CHILD	2.72E-03	4.47E-02	4.27E-02	4.29E-02	4.25E-02	5.30E-02	0.00E+00	4.36E-02
INFANT	3.14E-05	3.49E-02	3.48E-02	3.48E-02	3.48E-02	3.49E-02	0.00E+00	3.49E-02

=== SITE DOSE LIMIT ANALYSIS ========== ANNUAL 2002 =========

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2002 - Admin. Any Organ	ADULT	GILLI	7.79E-02	7.50E+00	1.04E+00
2002 - Admin. Total Body	CHILD	TBODY	4.36E-02	2.25E+00	1.94E+00
2002 - T.Spc. Any Organ	ADULT	GILLI	7.79E-02	1.00E+01	7.79E-01

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

Nuclide	Percentage
H-3	4.76E+01
NA-24	1.58E-04
CR-51	4.15E-02
MN-54	1.25E+00
FE-59	1.06E-01
CO-58	3.16E+00
CO-60	4.65E+00
NI-65	3.34E-04
RB-88	1.50E-14
ZR-95	1.61E-03
ZR-97	3.77E-04
NB-95	3.86E+01
TC-99M	8.08E-06
TC-101	4.96E-20
AG-110M	2.04E-02
TE-125M	4.56E+00
I-131	1.81E-05
I-134	1.86E-08
CS-136	7.55E-03
CS-137	3.57E-02
BA-140	1.63E-02

2002 - T.Spc. Total Body	CHILD	TBODY	4.36E-02	3.00E+00	1.45E+00

Table 3.2-1 (continued)

40CFR190 URANIUM FUEL CYCLE DOSE REPORT

LIQUID DOSE SUMMARY

Braidwood Unit 2, 2002

Report for: 2002
Unit Range - From: 2 To: 2

Liquid Receptor

=== PERIOD DOSE BY ORGAN AND AGE GROUP (mrem) ========== ANNUAL 2002 ========

Agegrp	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI	Skin	TB
ADULT	1.98E-03	3.95E-02	3.74E-02	4.13E-02	3.72E-02	7.79E-02	0.00E+00	3.89E-02
TEEN	2.13E-03	2.94E-02	2.71E-02	2.74E-02	2.70E-02	5.59E-02	0.00E+00	2.83E-02
CHILD	2.72E-03	4.47E-02	4.27E-02	4.29E-02	4.25E-02	5.30E-02	0.00E+00	4.36E-02
INFANT	3.14E-05	3.49E-02	3.48E-02	3.48E-02	3.48E-02	3.49E-02	0.00E+00	3.49E-02

=== SITE DOSE LIMIT ANALYSIS ========== ANNUAL 2002 ========

Annual - Limit	Age Group	Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
2002 - Admin. Any Organ	ADULT	GILLI	7.79E-02	7.50E+00	1.04E+00
2002 - Admin. Total Body	CHILD	TBODY	4.36E-02	2.25E+00	1.94E+00
2002 - T.Spc. Any Organ	ADULT	GILLI	7.79E-02	1.00E+01	7.79E-01

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

Nuclide	Percentage
H-3	4.76E+01
NA-24	1.58E-04
CR-51	4.15E-02
MN-54	1.25E+00
FE-59	1.06E-01
CO-58	3.16E+00
CO-60	4.65E+00
NI-65	3.34E-04
RB-88	1.50E-14
ZR-95	1.61E-03
ZR-97	3.77E-04
NB-95	3.86E+01
TC-99M	8.08E-06
TC-101	4.96E-20
AG-110M	2.04E-02
TE-125M	4.56E+00
I-131	1.81E-05
I-134	1.86E-08
CS-136	7.55E-03
CS-137	3.57E-02
BA-140	1.63E-02

2002 - T.Spc. Total Body	CHILD	TBODY	4.36E-02	3.00E+00	1.45E+00

Table 3.4-1

Braidwood Station - Unit 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2002

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	8.870E-06(NE)	1.110E-05(N)	1.220E-05(W)	8.320E-06(W)	3.362E-05(W)
BETA AIR (mrad)	1.200E-05(NE)	2.290E-05(WNW)	2.240E-05(W)	1.340E-05(W)	5.617E-05(WNW)
WHOLE BODY (mrem)	4.140E-06(NE)	6.280E-06(WNW)	6.830E-06(W)	5.200E-06(SW)	2.039E-05(SW)
SKIN (mrem)	1.350E-05(NE)	2.160E-05(WNW)	2.400E-05(W)	1.560E-05(W)	6.077E-05(W)
ORGAN (mrem)	1.880E-05(NE)	3.180E-05(WNW)	5.890E-05(W)	9.500E-05(W)	1.781E-04(W)
CRITICAL PERSON	Teenager	Teenager	Teenager	Teenager	Teenager
CRITICAL ORGAN	Liver	Thyroid	Liver	Thyroid	Thyroid

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	0.00	10.0	0.00
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.00	5.0	0.00
SKIN (mrem)	7.5	0.00	15.0	0.00
ORGAN (mrem)	7.5	0.03	15.0	0.02
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Liver		Thyroid

Calculation used release data from the following:
Unit 1 - Vent

Table 3.4-1 (continued)

Braidwood Station - Unit 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2002

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	3.180E-05(NE)	1.270E-05(N)	8.220E-06(W)	4.930E-06(W)	4.716E-05(NE)
BETA AIR (mrad)	5.000E-05(NE)	2.790E-05(WNW)	1.430E-05(W)	7.740E-06(W)	7.537E-05(N)
WHOLE BODY (mrem)	1.480E-05(NE)	7.470E-06(NNW)	4.600E-06(W)	3.090E-06(SW)	2.514E-05(SW)
SKIN (mrem)	4.950E-05(NE)	2.520E-05(WNW)	1.600E-05(W)	9.190E-06(W)	7.406E-05(N)
ORGAN (mrem)	3.660E-06(NE)	2.420E-06(WNW)	3.040E-06(W)	3.840E-06(W)	9.225E-06(W)
CRITICAL PERSON	Teenager	Child	Teenager	Teenager	Teenager
CRITICAL ORGAN	Liver	Thyroid	Liver	Liver	Thyroid

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	0.00	10.0	0.00
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.00	5.0	0.00
SKIN (mrem)	7.5	0.00	15.0	0.00
ORGAN (mrem)	7.5	0.00	15.0	0.00
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Liver		Thyroid

Calculation used release data from the following:
Unit 2 - Vent

Maximim Offsite Values (pCi/m3)

Iodine	5.51E-07
Particulate Matter	5.53E-01
Data Recovery (priority parameters)	99.5%

Figure 5.0-1

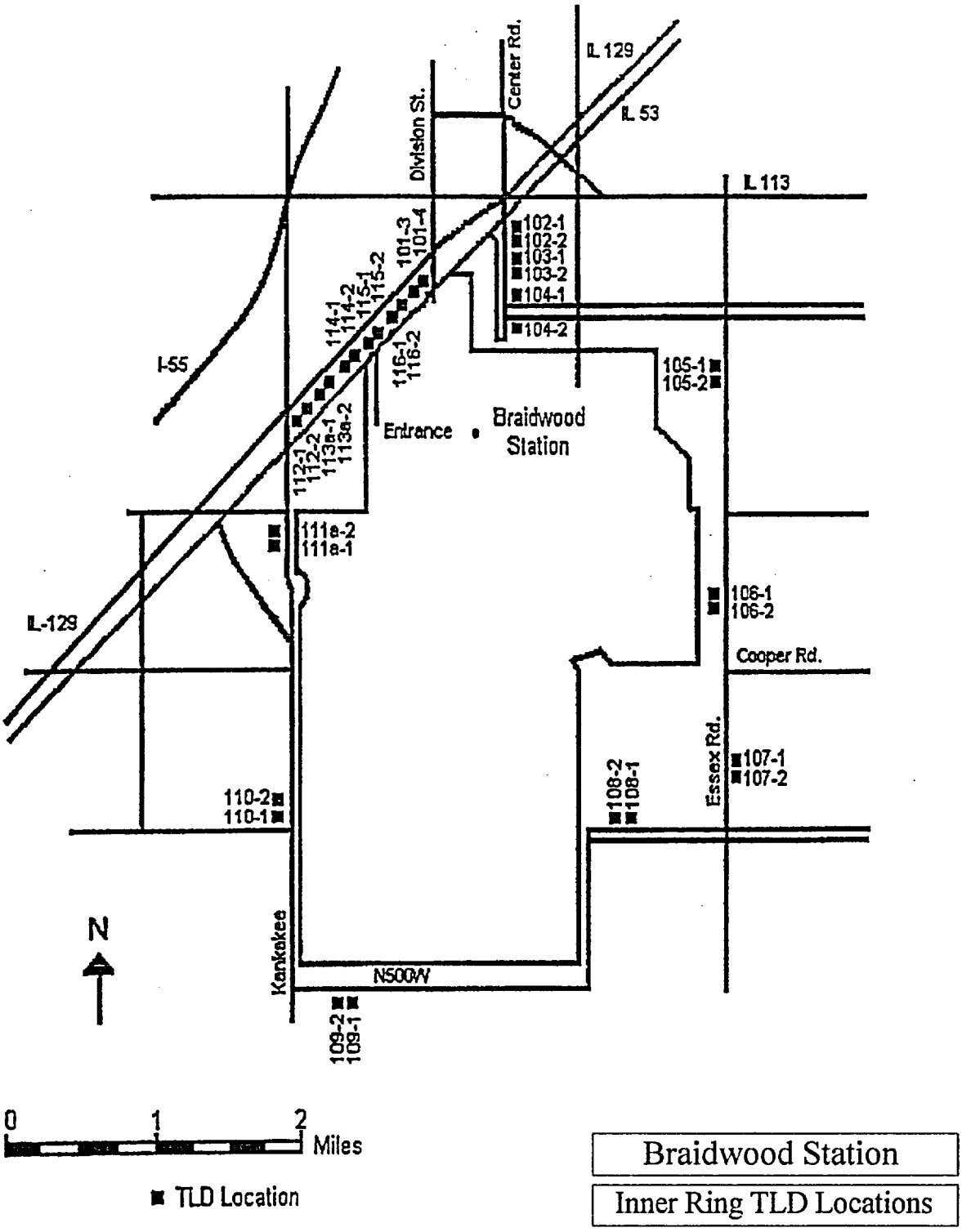

Center Rd.
IL 129
IL 53
Division St.
IL 113
102-1
102-2
103-1
103-2
104-1
104-2
101-3
101-4
114-1
114-2
115-1
115-2
116-1
116-2
I-55
105-1
105-2
Entrance
Braidwood Station
112-1
112-2
113a-1
113a-2
111a-2
111a-1
IL-129
106-1
106-2
Cooper Rd.
Essex Rd.
107-1
107-2
108-2
108-1
110-2
110-1
N
Kankakee
N500W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

Figure 5.0-2

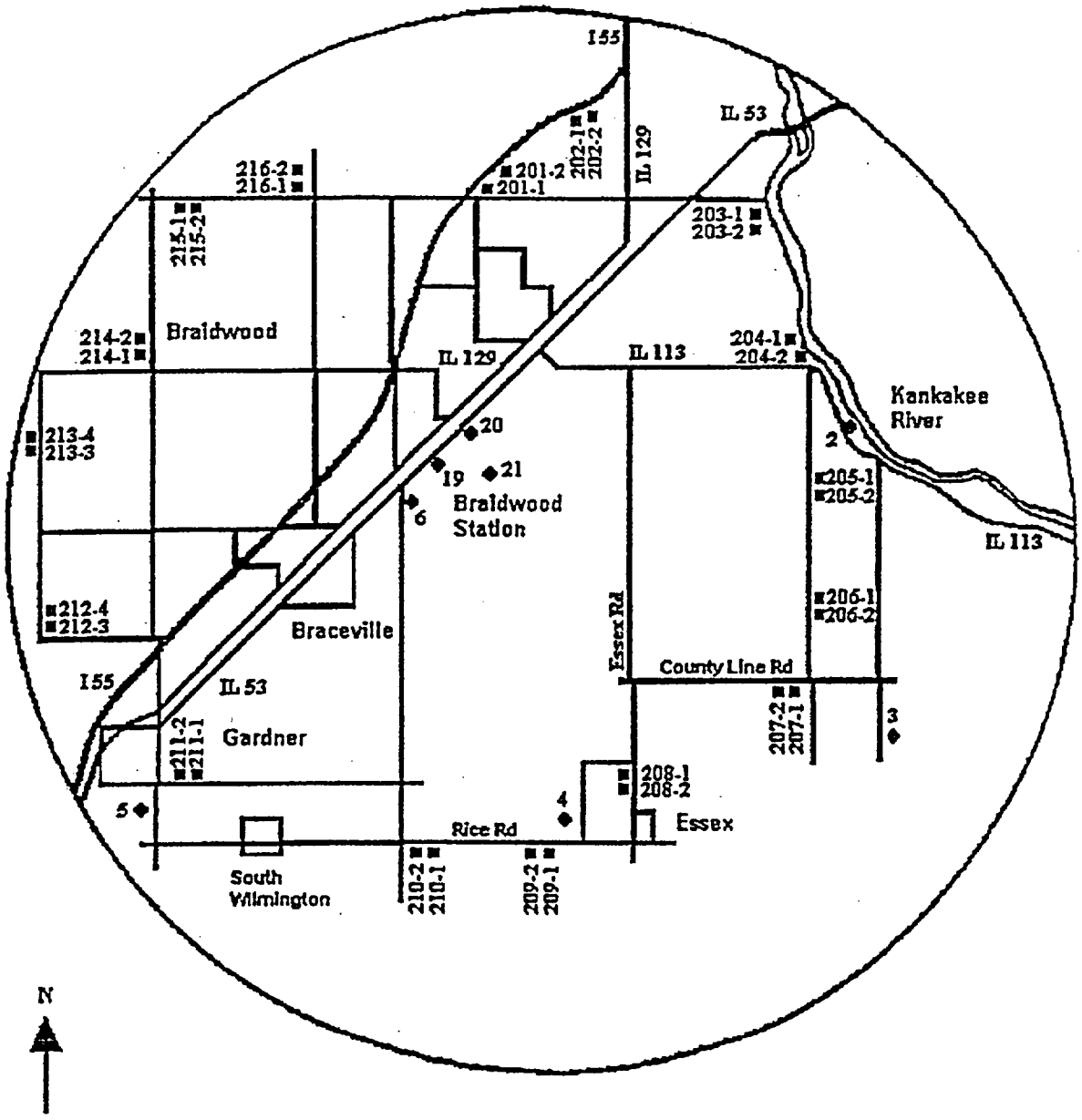
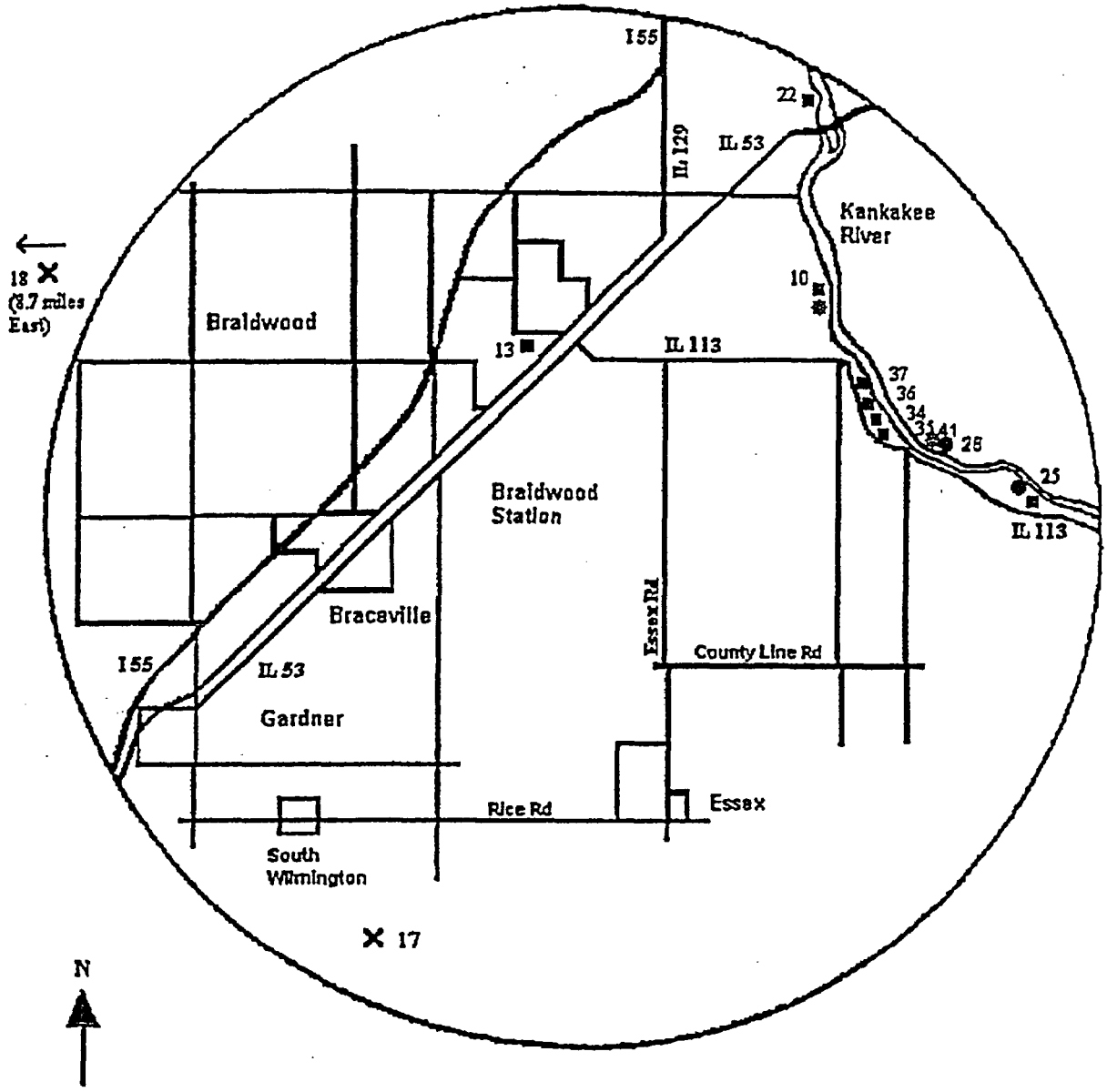

I55
IL 53
IL 129
216-2
216-1
201-2
201-1
202-1
202-2
215-1
215-2
203-1
203-2
214-2
214-1
Braidwood
IL 129
IL 113
204-1
204-2
Kankakee
River
213-4
213-3
20
19
21
Braidwood
Station
6
2
205-1
205-2
IL 113
212-4
212-3
Braceville
Essex Rd
206-1
206-2
County Line Rd
I55
IL 53
211-2
211-1
Gardner
207-2
207-1
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]	Location 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	Halpin's Dairy	Biweekly:	I-131	Biweekly:
	BD-18 (C)	Biros Farm	May-October	Gamma Isot.	May-October
			Monthly:		Monthly:
			November-April		November-April
6. Vegetables	Quad 1	Clark Farm	Annually - two varieties	Gamma Isot.	Annually
	Quad 2	W.F. Soltwisch	from each location as	I-131	Annually, on broad leaf
	Quad 3	Terri Schultz	available at harvest.		vegetation.
	Quad 4	Bruce Sinkular			
	Control	Gorman Farm			
7. Public Water	BD-22	Wilmington	Weekly	Gross Beta	Monthly composite.
				Gamma Isot.	Monthly composite.
				Tritium	Monthly composite.
8. Ground/Well Water	BD-13	City Hall	Quarterly	Gamma Isot.	Quarterly
	BD-34	Gibson Well		Tritium	
	BD-35	Joly Well			
	BD-36	Hutton Well			
	BD-37	Nurczyk Well			
9. Surface Water	BD-10	Kankakee River, Downstream	Weekly	Gross Beta	Monthly composite.
				Gamma Isot.	Monthly composite.
	BD-25 (C)	Kankakee River, Upstream		Tritium	Quarterly composite.
10. Fish (at least two species)	BD-25 (C)	Kankakee River, Upstream	Two times/year	Gamma Isot.	Two times/year on edible portions only.
	BD-28	Kankakee River, Discharge			
11. Sediments	BD-10	Kankakee River, Downstream	Semiannually	Gamma Isot.	Semiannually
	BD-41	Kankakee River, Downstream			
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 2002
(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	0.030 (52/52) (0.015-0.043)	BD-21, Nearsite NE 0.5 mi. NE, Sector C	0.031 (13/13) (0.017-0.043)	0.027 (13/13) (0.015-0.040)	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	5.5 (2/3) (4.7-6.2)	5.5 (2/3) (4.7-6.2)	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	315 (1/5)	BD-36 Hutton Well, 4.7 mi. E, Sector E	315 (1/1)	None	0
	Gamma Spec.	5		<LLD				
	Cs-134		15		-	-	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 2002
(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	4.9 (1/3)	BD-22, Wilmington, 6.0 mi NE, Sector C	4.9 (1/3)	None	0
	Tritium 3	200	219 (1/3)	BD-22, Wilmington, 6.0 mi NE, Sector C	219 (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	21.9 (78/78) (19-28)	BD-209-2 4.8 mi. S, Sector J	28 (1/1)	21.5 (2/2) (21-22)	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 2002
(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 (51/52) (0.010-0.035)	BD-03, Nearsite N 6.2 mi ESE, Sector F	0.022 (12/13) (0.015-0.032)	0.022 (12/13) (0.015-0.032)	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. 4						
	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 2002
(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	6.2 (2/3) (6.1-6.2)	6.2 (3/3) (6.1-6.2)	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	<LLD	-	-	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	377 (2/3) (323-431)	BD-22, Wilmington, 6.0 mi NE, Sector C	377 (2/3) (323-431)	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	19.5 (78/78) (16.0-25.0)	BD-211-1 4.8 mi. SW, Sector L	25.0 (1/1)	21.0 (2/2) (21.0-21.0)	0

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

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 2002
(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 (52/52) (0.016-0.044)	BD-20[b], Nearsite, N 0.6 mi N, Sector A	0.029 (13/13) (0.020-0.038)	0.028 (13/13) (0.020-0.045)	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	4.8 (2/3) (4.5-5.0)	BD-10 Kankakee River, Downstream, 5.4 mi NE, Sector C	4.8 (2/3) (4.5-5.0)	4.3 (2/3) (4.2-4.3)	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

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[b] Locations BD-20 and BD-21 had identical means of 0.029 pCi/m^3. Only BD-20 is detailed in this summary.

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 2002
(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	229 (1/5)	BD-36 Hutton Well 4.7 mi. E, Sector E	229 (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	2,183 (2/3) (1,016-3,350)	BD-22, Wilmington, 6.0 mi NE, Sector C	2,183 (3/3) (1,016-3,350)	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	18.0 (78/78) (14.0-23.0)	BD-109-1[b] 3.8 mi. S, Sector J	23 (1/1)	19.0 (2/2) (19.0-19.0)	0

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

[b] Locations BD-109-1, 209-1, 209-2 and 211-1 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 2002
(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	0.033 (51/52) (0.016-0.053)	BD-21, Nearsite NE 0.5 mi. NE, Sector C	0.034 (13/13) (0.021-0.053)	0.033 (13/13) (0.020-0.052)	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	10	0.5/5.0[b]	<LLD	-	-	<LLD	0
	Gamma Spec.	10						
	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.	4						
	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 2002
(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	4.4 (1/3)	BD-25, Kankakee River Upstream, 9.6 mi. E, Sector E	4.6 (2/3) (4.0-5.1)	4.6 (2/3) (4.0-5.1)	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	292 (1/1)	BD-10, Kankakee River Downstream, 5.4 mi. NE, Sector C	292 (1/1)	<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	371 (1/5)	BD-36, Hutton Well, 4.7 mi. E, Sector E	371 (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	2,072 (3/3) (1,835-3,585)	BD-22, Wilmington, 6.0 mi NE, Sector C	2,072 (3/3) (1,835-3,585)	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	80	9.7	21.4 (78/78) (19.0-31.0)	BD-211-1 4.8 mi SW, Sector L	31.0 (1/1)	21.5 (2/2) (21.0-22.0)	0

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

APPENDIX II

METEOROLOGICAL DATA

Braidwood Nuclear Station

Period of Record: January - March 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	4	0	0	0	4
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	1	2	0	0	3
SSE	0	0	0	3	1	0	4
S	0	0	0	11	1	0	12
SSW	0	0	2	8	1	0	11
SW	0	0	1	8	0	0	9
WSW	0	0	6	6	0	0	12
W	0	1	10	14	0	0	25
WNW	0	6	24	11	0	0	41
NW	0	2	14	0	0	0	16
NNW	0	1	2	3	1	0	7
Variable	0	0	0	0	0	0	0
Total	0	11	65	66	4	0	146

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 Station

Period of Record: January - March 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	1	0	0	0	1
E	0	1	0	0	0	0	1
ESE	0	0	1	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	0	0	1	2	0	0	3
S	0	1	3	3	1	0	8
SSW	0	1	1	10	0	0	12
SW	0	3	0	11	0	0	14
WSW	1	2	7	2	0	0	12
W	0	4	8	4	0	0	16
WNW	0	2	10	5	0	0	17
NW	0	3	0	1	0	0	4
NNW	0	3	4	1	0	0	8
Variable	0	0	0	0	0	0	0
Total	1	21	36	39	1	0	98

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 Station

Period of Record: January - March 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	1	0	0	1
ENE	1	3	0	0	0	0	4
E	0	2	0	0	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	1	1	0	0	0	2
SSE	0	2	5	2	0	0	9
S	0	2	0	5	1	0	8
SSW	0	3	2	9	2	0	16
SW	0	4	4	10	0	0	18
WSW	0	1	8	0	0	0	9
W	1	6	3	2	0	1	13
WNW	0	2	11	5	0	0	18
NW	0	3	1	3	0	0	7
NNW	0	1	5	1	1	0	8
Variable	0	0	0	0	0	0	0
Total	2	30	40	38	4	1	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 Station

Period of Record: January - March 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	12	15	8	0	0	37
NNE	3	21	17	4	0	0	45
NE	4	21	35	24	0	0	84
ENE	6	42	8	0	0	0	56
E	5	19	3	0	0	0	27
ESE	1	3	2	0	0	0	6
SE	1	5	4	0	0	0	10
SSE	1	4	39	9	0	1	54
S	1	2	36	35	5	0	79
SSW	0	1	15	29	9	0	54
SW	0	10	45	37	5	0	97
WSW	1	14	39	3	0	0	57
W	2	16	36	25	7	9	95
WNW	2	11	50	27	3	0	93
NW	4	8	24	6	0	0	42
NNW	7	24	54	12	3	0	100
Variable	0	0	0	0	0	0	0
Total	40	213	422	219	32	10	936

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 Station

Period of Record: January - March 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	4	7	1	0	0	0	12
NNE	1	2	0	0	0	0	3
NE	5	6	1	1	0	0	13
ENE	9	9	1	0	0	0	19
E	3	10	0	0	0	0	13
ESE	6	5	0	0	0	0	11
SE	0	13	10	0	0	0	23
SSE	1	6	29	5	0	0	41
S	1	15	33	24	2	0	75
SSW	1	5	16	28	2	0	52
SW	1	27	129	20	0	0	177
WSW	4	49	48	0	0	0	101
W	5	27	15	0	0	0	47
WNW	9	26	14	2	0	0	51
NW	12	14	3	0	0	0	29
NNW	7	20	10	0	0	0	37
Variable	0	0	0	0	0	0	0
Total	69	241	310	80	4	0	704

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 Station

Period of Record: January - March 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	0	0	0	0	1
NNE	2	0	0	0	0	0	2
NE	2	0	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	4	0	0	0	0	0	4
ESE	2	3	0	0	0	0	5
SE	1	2	1	0	0	0	4
SSE	0	1	0	0	0	0	1
S	1	1	0	0	0	0	2
SSW	3	0	0	0	0	0	3
SW	0	1	4	0	0	0	5
WSW	2	30	1	0	0	0	33
W	11	22	0	0	0	0	33
WNW	7	9	0	0	0	0	16
NW	8	0	0	0	0	0	8
NNW	2	0	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	47	69	6	0	0	0	122

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 Station

Period of Record: January - March 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	2	0	0	0	0	0	2
E	2	0	0	0	0	0	2
ESE	1	0	0	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	1	0	0	0	0	0	1
SW	1	0	0	0	0	0	1
WSW	0	5	0	0	0	0	5
W	0	4	0	0	0	0	4
WNW	6	0	0	0	0	0	6
NW	5	0	0	0	0	0	5
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	19	10	0	0	0	0	29

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 Station

Period of Record: January - March 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	4	0	0	4
ENE	0	0	0	1	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	1	3	4
SSE	0	0	0	0	2	1	3
S	0	0	0	4	9	2	15
SSW	0	0	0	4	6	3	13
SW	0	0	0	4	0	0	4
WSW	0	0	7	3	5	0	15
W	0	1	6	4	10	0	21
WNW	0	3	10	19	7	2	41
NW	0	2	10	6	0	0	18
NNW	0	0	1	1	0	4	6
Variable	0	0	0	0	0	0	0
Total	0	6	35	50	40	15	146

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 Station

Period of Record: January - March 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	1	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	1	0	0	1
SE	0	1	0	0	0	0	1
SSE	0	0	1	1	3	0	5
S	0	1	2	3	3	1	10
SSW	0	1	0	2	5	1	9
SW	1	1	3	2	8	0	15
WSW	0	1	5	6	1	0	13
W	0	4	4	1	5	0	14
WNW	0	1	1	8	3	2	15
NW	0	2	1	1	0	1	5
NNW	0	3	1	3	0	1	8
Variable	0	0	0	0	0	0	0
Total	1	15	19	29	28	6	98

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 Station

Period of Record: January - March 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	1	0	0	1	0	0	2
ENE	0	1	2	0	0	0	3
E	0	0	3	0	0	0	3
ESE	0	0	0	0	0	0	0
SE	0	0	1	1	0	0	2
SSE	0	4	3	1	4	0	12
S	0	1	0	1	5	2	9
SSW	1	2	0	3	10	3	19
SW	0	1	5	2	4	0	12
WSW	0	1	4	7	0	0	12
W	0	3	3	0	1	1	8
WNW	0	0	3	7	5	1	16
NW	0	1	2	1	4	0	8
NNW	0	1	2	4	1	1	9
Variable	0	0	0	0	0	0	0
Total	2	15	28	28	34	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: 1

Braidwood Nuclear Station

Period of Record: January - March 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	9	15	8	7	0	39
NNE	2	3	19	11	3	0	38
NE	1	11	26	23	24	0	85
ENE	4	8	28	14	0	0	54
E	2	7	14	9	0	0	32
ESE	0	1	3	3	0	0	7
SE	0	1	3	5	0	0	9
SSE	0	4	9	27	21	5	66
S	2	0	5	22	32	16	77
SSW	0	0	3	28	41	23	95
SW	1	4	17	21	11	3	57
WSW	0	5	16	29	4	0	54
W	0	4	21	20	32	22	99
WNW	0	2	5	43	16	9	75
NW	1	3	7	19	15	2	47
NNW	2	12	26	46	9	3	98
Variable	0	0	0	0	0	0	0
Total	15	74	217	328	215	83	932

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 11
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: January - March 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	6	11	2	0	0	19
NNE	0	2	3	0	0	0	5
NE	2	2	3	2	1	0	10
ENE	0	2	7	3	0	0	12
E	1	7	11	3	0	0	22
ESE	0	2	4	0	1	0	7
SE	0	3	11	14	0	0	28
SSE	0	3	1	23	12	4	43
S	0	1	7	24	23	11	66
SSW	1	2	10	26	64	12	115
SW	0	6	22	66	30	0	124
WSW	0	5	16	68	1	0	90
W	1	6	16	20	6	0	49
WNW	1	3	16	23	7	0	50
NW	0	6	17	7	2	0	32
NNW	1	4	19	8	0	0	32
Variable	0	0	0	0	0	0	0
Total	7	60	174	289	147	27	704

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 2
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: January - March 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	0	0	0	0	4
NNE	0	2	0	0	0	0	2
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	1	0	0	0	1
SE	1	2	4	2	1	0	10
SSE	1	5	0	1	0	0	7
S	0	1	0	0	0	0	1
SSW	0	2	0	0	0	0	2
SW	1	1	2	3	1	0	8
WSW	0	5	3	13	0	0	21
W	0	2	10	14	0	0	26
WNW	0	2	8	13	0	0	23
NW	1	1	9	3	0	0	14
NNW	0	2	1	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	4	29	38	49	2	0	122

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 Station

Period of Record: January - March 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	3	0	0	0	6
NNE	0	0	0	0	0	0	0
NE	0	2	0	0	0	0	2
ENE	0	0	0	0	0	0	0
E	1	1	1	0	0	0	3
ESE	0	1	0	0	0	0	1
SE	1	0	0	0	0	0	1
SSE	0	0	0	1	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	1	0	0	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	3	0	0	3
WNW	0	1	5	3	0	0	9
NW	0	0	1	1	0	0	2
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	2	9	10	8	0	0	29

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 Station

Period of Record: April - June 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	2	0	0	0	4
NNE	1	5	3	0	0	0	9
NE	1	6	8	1	0	0	16
ENE	1	5	4	0	0	0	10
E	0	2	1	0	0	0	3
ESE	0	11	1	0	0	0	12
SE	0	3	2	0	0	0	5
SSE	0	23	11	0	0	0	34
S	0	19	12	12	0	0	43
SSW	0	12	9	17	6	0	44
SW	0	12	13	8	0	0	33
WSW	2	18	19	3	0	0	42
W	0	5	16	7	5	0	33
WNW	0	14	24	5	1	0	44
NW	0	4	15	3	0	0	22
NNW	0	5	15	0	0	0	20
Variable	0	0	0	0	0	0	0
Total	5	146	155	56	12	0	374

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 Station

Period of Record: April - June 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	0	0	0	0	2
NNE	0	1	3	2	0	0	6
NE	0	3	6	1	0	0	10
ENE	0	3	1	0	0	0	4
E	0	0	0	0	0	0	0
ESE	0	2	1	0	0	0	3
SE	0	6	2	0	0	0	8
SSE	0	2	5	0	0	0	7
S	1	3	2	1	0	0	7
SSW	0	5	1	4	1	0	11
SW	0	6	2	3	0	0	11
WSW	0	1	6	0	0	0	7
W	0	2	2	2	0	0	6
WNW	0	3	5	1	0	0	9
NW	1	4	6	0	0	0	11
NNW	0	2	2	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	2	45	44	14	1	0	106

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 Station

Period of Record: April - June 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	2	0	0	0	6
NNE	0	3	1	0	0	0	4
NE	1	3	13	1	0	0	18
ENE	2	4	0	0	0	0	6
E	0	0	1	0	0	0	1
ESE	0	3	0	0	0	0	3
SE	1	6	1	0	0	0	8
SSE	1	6	1	0	0	0	8
S	0	1	3	2	0	0	6
SSW	0	3	3	3	1	0	10
SW	0	1	1	0	0	0	2
WSW	1	2	1	1	0	0	5
W	0	1	5	1	0	0	7
WNW	0	5	6	3	0	0	14
NW	0	3	3	0	0	0	6
NNW	1	3	2	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	7	48	43	11	1	0	110

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 Station

Period of Record: April - June 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	9	21	4	0	0	34
NNE	6	22	18	0	0	0	46
NE	6	40	41	4	0	0	91
ENE	12	33	10	0	0	0	55
E	6	24	6	0	0	0	36
ESE	3	9	9	0	0	0	21
SE	4	11	12	3	0	0	30
SSE	2	10	15	4	0	0	31
S	1	15	12	8	0	0	36
SSW	1	8	12	19	4	1	45
SW	2	9	33	8	0	0	52
WSW	1	19	16	2	1	0	39
W	2	14	9	4	3	0	32
WNW	6	22	16	9	1	0	54
NW	6	23	24	2	0	0	55
NNW	1	14	19	1	0	0	35
Variable	0	0	0	0	0	0	0
Total	59	282	273	68	9	1	692

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 Station

Period of Record: April - June 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	8	2	0	0	0	13
NNE	2	1	0	0	0	0	3
NE	10	6	3	0	0	0	19
ENE	15	8	1	0	0	0	24
E	19	12	3	0	0	0	34
ESE	14	23	5	0	0	0	42
SE	8	30	8	0	0	0	46
SSE	6	40	39	2	0	0	87
S	1	45	45	10	0	0	101
SSW	1	11	15	29	4	0	60
SW	3	26	46	10	0	0	85
WSW	2	36	4	1	0	0	43
W	10	35	6	1	0	0	52
WNW	19	17	0	0	0	0	36
NW	7	11	3	1	0	0	22
NNW	1	7	5	0	0	0	13
Variable	0	0	0	0	0	0	0
Total	121	316	185	54	4	0	680

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 Station

Period of Record: April - June 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	5	0	0	0	0	0	5
NNE	4	1	0	0	0	0	5
NE	3	0	0	0	0	0	3
ENE	5	1	0	0	0	0	6
E	8	1	0	0	0	0	9
ESE	20	5	0	0	0	0	25
SE	3	6	0	0	0	0	9
SSE	2	5	0	0	0	0	7
S	2	7	0	0	0	0	9
SSW	2	4	0	0	0	0	6
SW	1	7	4	0	0	0	12
WSW	4	10	1	0	0	0	15
W	17	12	0	0	0	0	29
WNW	4	2	0	0	0	0	6
NW	6	0	0	0	0	0	6
NNW	4	0	0	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	90	61	5	0	0	0	156

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 Station

Period of Record: April - June 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	0	0	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	2	0	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	6	0	0	0	0	0	6
SE	1	0	0	0	0	0	1
SSE	2	0	0	0	0	0	2
S	0	0	0	0	0	0	0
SSW	3	1	0	0	0	0	4
SW	3	1	0	0	0	0	4
WSW	2	2	0	0	0	0	4
W	8	1	0	0	0	0	9
WNW	3	0	0	0	0	0	3
NW	4	0	0	0	0	0	4
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	37	6	0	0	0	0	43

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 Station

Period of Record: April - June 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	2	1	0	0	5
NNE	0	3	2	0	0	0	5
NE	0	3	4	7	0	0	14
ENE	0	5	1	4	0	0	10
E	0	4	3	1	0	0	8
ESE	0	6	4	1	0	0	11
SE	0	5	8	0	0	0	13
SSE	0	8	10	9	0	0	27
S	0	9	16	7	12	2	46
SSW	0	4	11	9	15	8	47
SW	0	8	18	4	2	0	32
WSW	0	7	18	12	0	0	37
W	1	3	6	10	1	3	24
WNW	0	1	15	14	7	6	43
NW	0	6	12	9	5	0	32
NNW	0	4	6	10	0	0	20
Variable	0	0	0	0	0	0	0
Total	1	78	136	98	42	19	374

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	1	1	2	0	0	4
NE	0	2	5	3	2	0	12
ENE	0	1	1	2	0	0	4
E	1	2	0	0	0	0	3
ESE	0	0	2	0	0	0	2
SE	0	3	5	1	0	0	9
SSE	0	1	5	2	0	0	8
S	0	3	1	0	2	0	6
SSW	0	3	4	0	1	4	12
SW	0	2	6	0	2	0	10
WSW	0	1	1	3	0	0	5
W	0	0	2	2	1	0	5
WNW	0	1	4	2	1	1	9
NW	0	1	7	3	1	0	12
NNW	0	1	2	1	0	0	4
Variable	0	0	0	0	0	0	0
Total	1	23	47	21	10	5	107

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	1	0	0	4
NNE	0	2	3	0	0	0	5
NE	1	0	3	10	1	0	15
ENE	1	2	4	2	0	0	9
E	0	0	0	0	1	0	1
ESE	0	0	3	1	0	0	4
SE	0	5	2	0	0	0	7
SSE	0	4	1	0	0	0	5
S	0	2	2	3	1	1	9
SSW	0	2	2	1	1	3	9
SW	0	0	2	0	0	0	2
WSW	0	2	2	2	0	0	6
W	0	1	1	3	0	1	6
WNW	0	0	5	3	3	0	11
NW	0	1	5	0	2	0	8
NNW	1	5	1	2	0	0	9
Variable	0	0	0	0	0	0	0
Total	3	26	39	28	9	5	110

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	7	11	14	3	1	36
NNE	3	5	7	10	0	0	25
NE	2	11	39	37	9	0	98
ENE	3	17	27	16	1	0	64
E	2	8	9	18	3	0	40
ESE	2	3	4	12	7	1	29
SE	0	5	5	9	6	3	28
SSE	1	4	5	11	6	0	27
S	1	5	9	16	11	1	43
SSW	0	3	7	14	13	14	51
SW	0	1	15	24	2	1	43
WSW	1	6	17	11	2	1	38
W	0	5	9	6	4	3	27
WNW	1	5	15	11	12	3	47
NW	1	8	21	21	8	2	61
NNW	0	10	8	17	0	0	35
Variable	0	0	0	0	0	0	0
Total	17	103	208	247	87	30	692

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	10	4	0	0	17
NNE	1	0	1	0	0	0	2
NE	1	3	5	2	0	0	11
ENE	0	9	8	4	0	0	21
E	1	10	18	5	2	0	36
ESE	1	1	17	16	2	0	37
SE	0	7	22	21	1	0	51
SSE	0	5	29	45	7	0	86
S	0	2	21	39	33	2	97
SSW	0	5	15	28	33	13	94
SW	0	0	20	37	5	0	62
WSW	0	4	21	17	1	0	43
W	1	2	29	8	2	0	42
WNW	0	7	17	6	1	0	31
NW	0	3	19	3	3	1	29
NNW	1	3	17	3	0	0	24
Variable	0	0	0	0	0	0	0
Total	6	64	269	238	90	16	683

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	1	0	0	0	4
NNE	1	1	4	0	0	0	6
NE	1	0	3	0	0	0	4
ENE	2	1	0	0	0	0	3
E	1	2	3	1	0	0	7
ESE	0	5	5	7	0	0	17
SE	0	3	15	2	0	0	20
SSE	0	3	4	0	0	0	7
S	1	2	5	2	0	0	10
SSW	0	1	7	3	0	0	11
SW	0	2	5	5	1	0	13
WSW	1	1	4	4	0	0	10
W	0	1	12	4	0	0	17
WNW	0	4	12	2	0	0	18
NW	1	2	8	1	0	0	12
NNW	1	2	3	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	10	32	91	31	1	0	165

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: 5

Braidwood Nuclear Station

Period of Record: April - June 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	2	1	1	0	0	0	4
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	1	1	3	0	0	0	5
SE	0	0	1	0	0	0	1
SSE	0	0	1	0	0	0	1
S	0	1	1	0	0	0	2
SSW	0	2	1	0	0	0	3
SW	0	2	5	0	0	0	7
WSW	0	2	8	0	0	0	10
W	0	2	4	0	0	0	6
WNW	0	0	0	2	0	0	2
NW	0	0	2	1	0	0	3
NNW	0	3	1	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	3	14	28	3	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: 5

Braidwood Nuclear Station

Period of Record: July - September 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	8	3	0	0	0	11
NNE	0	4	9	0	0	0	13
NE	2	40	17	0	0	0	59
ENE	0	51	3	0	0	0	54
E	1	16	2	0	0	0	19
ESE	0	11	0	0	0	0	11
SE	1	23	2	0	0	0	26
SSE	1	27	10	0	0	0	38
S	0	12	10	0	0	0	22
SSW	2	20	23	19	0	0	64
SW	0	19	26	4	0	0	49
WSW	1	30	18	0	0	0	49
W	1	42	20	0	0	0	63
WNW	3	32	6	0	0	0	41
NW	1	12	1	0	0	0	14
NNW	1	7	3	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	14	354	153	23	0	0	544

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 Station

Period of Record: July - September 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	3	1	0	0	0	4
NE	1	8	2	0	0	0	11
ENE	0	8	1	0	0	0	9
E	3	10	0	0	0	0	13
ESE	1	4	0	0	0	0	5
SE	0	7	0	0	0	0	7
SSE	1	9	2	0	0	0	12
S	0	4	2	0	0	0	6
SSW	0	1	3	3	0	0	7
SW	1	0	5	3	0	0	9
WSW	0	0	3	0	0	0	3
W	2	12	1	0	0	0	15
WNW	3	4	0	0	0	0	7
NW	0	2	0	0	0	0	2
NNW	0	6	0	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	12	79	21	6	0	0	118

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 Station

Period of Record: July - September 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	4	0	0	0	8
NNE	0	1	2	0	0	0	3
NE	0	5	2	0	0	0	7
ENE	5	3	0	0	0	0	8
E	1	1	0	0	0	0	2
ESE	1	3	0	0	0	0	4
SE	3	1	0	0	0	0	4
SSE	1	3	1	0	0	0	5
S	0	2	4	0	0	0	6
SSW	0	0	3	3	0	0	6
SW	0	0	2	1	0	0	3
WSW	0	3	2	0	0	0	5
W	0	5	1	0	0	0	6
WNW	1	0	0	0	0	0	1
NW	1	1	0	0	0	0	2
NNW	0	1	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	14	32	21	4	0	0	71

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 Station

Period of Record: July - September 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	11	6	1	0	0	21
NNE	4	22	14	0	0	0	40
NE	9	31	5	0	0	0	45
ENE	14	31	1	0	0	0	46
E	9	7	0	0	0	0	16
ESE	8	6	0	0	0	0	14
SE	3	13	1	0	0	0	17
SSE	3	20	2	0	0	0	25
S	1	10	27	0	0	0	38
SSW	1	11	22	9	0	0	43
SW	0	17	55	3	0	0	75
WSW	2	16	12	1	0	0	31
W	5	16	0	2	0	0	23
WNW	2	6	1	0	0	0	9
NW	2	10	0	0	0	0	12
NNW	1	9	2	1	0	0	13
Variable	0	0	0	0	0	0	0
Total	67	236	148	17	0	0	468

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 Station

Period of Record: July - September 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	14	5	0	0	0	22
NNE	12	31	3	0	0	0	46
NE	28	34	0	0	0	0	62
ENE	42	21	0	0	0	0	63
E	17	1	0	0	0	0	18
ESE	12	7	0	0	0	0	19
SE	5	15	0	0	0	0	20
SSE	4	41	8	0	0	0	53
S	3	66	23	0	0	0	92
SSW	0	14	27	0	0	0	41
SW	4	23	14	0	0	0	41
WSW	4	13	0	0	0	0	17
W	14	15	0	0	0	0	29
WNW	10	4	1	0	0	0	15
NW	12	6	0	0	0	0	18
NNW	3	9	5	0	0	0	17
Variable	0	0	0	0	0	0	0
Total	173	314	86	0	0	0	573

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 Station

Period of Record: July - September 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	8	2	0	0	0	0	10
NNE	5	2	0	0	0	0	7
NE	6	1	0	0	0	0	7
ENE	11	1	0	0	0	0	12
E	33	2	0	0	0	0	35
ESE	16	8	0	0	0	0	24
SE	4	8	0	0	0	0	12
SSE	4	2	0	0	0	0	6
S	1	0	0	0	0	0	1
SSW	5	1	0	0	0	0	6
SW	4	1	0	0	0	0	5
WSW	4	9	0	0	0	0	13
W	16	7	0	0	0	0	23
WNW	10	0	0	0	0	0	10
NW	6	0	0	0	0	0	6
NNW	6	0	0	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	139	44	0	0	0	0	183

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 Station

Period of Record: July - September 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	4	0	0	0	0	0	4
NNE	1	0	0	0	0	0	1
NE	3	0	0	0	0	0	3
ENE	3	0	0	0	0	0	3
E	25	0	0	0	0	0	25
ESE	23	3	0	0	0	0	26
SE	2	1	0	0	0	0	3
SSE	0	1	0	0	0	0	1
S	1	0	0	0	0	0	1
SSW	2	0	0	0	0	0	2
SW	1	0	0	0	0	0	1
WSW	0	2	0	0	0	0	2
W	15	2	0	0	0	0	17
WNW	15	0	0	0	0	0	15
NW	6	0	0	0	0	0	6
NNW	4	0	0	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	105	9	0	0	0	0	114

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 Station

Period of Record: July - September 2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	3	1	0	0	8
NNE	0	4	7	1	0	0	12
NE	3	8	18	11	0	0	40
ENE	0	23	38	2	0	0	63
E	0	13	16	2	0	0	31
ESE	0	11	3	0	0	0	14
SE	0	14	11	2	0	0	27
SSE	0	23	10	5	0	0	38
S	0	11	6	8	1	0	26
SSW	2	11	13	16	16	7	65
SW	0	14	14	15	2	0	45
WSW	0	13	36	5	0	0	54
W	0	26	24	3	0	0	53
WNW	1	17	16	5	0	0	39
NW	1	12	4	1	0	0	18
NNW	0	6	4	1	0	0	11
Variable	0	0	0	0	0	0	0
Total	7	210	223	78	19	7	544

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 Station

Period of Record: July - September 2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	4	1	0	0	0	6
NNE	1	2	0	1	0	0	4
NE	0	2	3	2	0	0	7
ENE	0	1	9	1	0	0	11
E	3	5	7	0	0	0	15
ESE	1	4	0	0	0	0	5
SE	0	4	4	0	0	0	8
SSE	0	6	5	1	0	0	12
S	0	1	4	1	1	0	7
SSW	0	1	1	1	3	1	7
SW	0	0	3	2	2	1	8
WSW	0	1	1	1	0	0	3
W	1	3	8	0	0	0	12
WNW	2	4	1	0	0	0	7
NW	0	2	0	0	0	0	2
NNW	0	4	0	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	9	44	47	10	6	2	118

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 Station

Period of Record: July - September 2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	3	0	0	0	7
NNE	0	0	2	1	0	0	3
NE	0	0	3	2	0	0	5
ENE	1	4	2	1	0	0	8
E	1	3	0	0	0	0	4
ESE	1	0	3	0	0	0	4
SE	2	3	0	0	0	0	5
SSE	0	2	0	1	0	0	3
S	0	3	1	4	0	0	8
SSW	0	0	1	2	1	2	6
SW	0	0	4	1	1	0	6
WSW	0	2	0	1	0	0	3
W	1	3	1	1	0	0	6
WNW	0	0	0	0	0	0	0
NW	1	0	1	0	0	0	2
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	8	23	22	14	2	2	71

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 Station

Period of Record: July - September 2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	12	3	1	0	20
NNE	0	3	12	5	0	0	20
NE	2	9	22	18	1	0	52
ENE	2	18	19	5	0	0	44
E	0	11	17	0	0	0	28
ESE	1	7	3	0	0	0	11
SE	2	7	13	1	0	0	23
SSE	0	5	10	3	0	0	18
S	0	4	11	26	2	0	43
SSW	0	2	6	33	15	1	57
SW	2	2	23	34	4	0	65
WSW	1	6	16	8	1	0	32
W	0	8	8	0	0	1	17
WNW	2	3	6	2	0	1	14
NW	3	4	3	0	0	0	10
NNW	0	7	5	1	1	0	14
Variable	0	0	0	0	0	0	0
Total	15	100	186	139	25	3	468

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 Station

Period of Record: July - September 2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	1	17	4	0	0	23
NNE	1	1	19	4	0	0	25
NE	1	4	41	11	0	0	57
ENE	1	15	50	10	0	0	76
E	0	7	31	0	0	0	38
ESE	0	3	11	1	0	0	15
SE	1	4	11	10	0	0	26
SSE	0	3	21	14	2	0	40
S	0	2	28	52	1	0	83
SSW	2	3	16	53	7	0	81
SW	0	2	15	7	0	0	24
WSW	2	5	13	4	0	0	24
W	0	8	11	2	0	0	21
WNW	1	3	6	3	0	0	13
NW	2	6	6	3	0	0	17
NNW	0	7	10	4	0	0	21
Variable	0	0	0	0	0	0	0
Total	12	74	306	182	10	0	584

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 Station

Period of Record: July - September 2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	0	0	0	3
NNE	0	0	4	0	0	0	4
NE	0	4	13	3	0	0	20
ENE	1	4	8	0	0	0	13
E	2	4	13	2	0	0	21
ESE	0	1	13	16	0	0	30
SE	0	5	11	3	0	0	19
SSE	0	4	10	0	0	0	14
S	0	4	4	0	0	0	8
SSW	1	5	3	0	0	0	9
SW	0	9	2	1	0	0	12
WSW	1	4	4	5	0	0	14
W	1	0	9	3	0	0	13
WNW	1	3	11	1	0	0	16
NW	1	1	6	1	0	0	9
NNW	0	1	5	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	8	49	119	35	0	0	211

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 Station

Period of Record: July - September 2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	7	0	0	0	9
NNE	1	5	2	0	0	0	8
NE	0	8	6	0	0	0	14
ENE	1	4	5	0	0	0	10
E	2	7	4	0	0	0	13
ESE	2	1	2	4	0	0	9
SE	1	5	12	11	0	0	29
SSE	2	5	12	0	0	0	19
S	0	8	1	0	0	0	9
SSW	2	6	1	0	0	0	9
SW	2	8	0	0	0	0	10
WSW	3	8	0	0	0	0	11
W	4	11	4	5	0	0	24
WNW	3	9	6	0	0	0	18
NW	1	1	7	2	0	0	11
NNW	1	2	6	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	25	90	75	22	0	0	212

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 Station

Period of Record: October - December2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	4	0	0	0	6
NNE	0	0	1	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	0	1	0	0	0	0	1
E	0	4	1	0	0	0	5
ESE	0	3	0	0	0	0	3
SE	1	0	1	0	0	0	2
SSE	0	2	7	0	0	0	9
S	0	1	4	0	0	0	5
SSW	0	1	10	1	0	0	12
SW	0	0	7	1	0	0	8
WSW	0	3	0	3	0	0	6
W	0	6	7	2	0	0	15
WNW	1	5	6	0	0	0	12
NW	0	14	9	1	0	0	24
NNW	0	7	7	1	0	0	15
Variable	0	0	0	0	0	0	0
Total	2	50	64	9	0	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: 0

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	3	1	0	0	5
NNE	0	1	2	0	0	0	3
NE	0	0	0	0	0	0	0
ENE	0	5	0	0	0	0	5
E	0	3	1	0	0	0	4
ESE	0	1	1	0	0	0	2
SE	2	1	1	0	0	0	4
SSE	0	2	0	0	0	0	2
S	0	0	2	0	0	0	2
SSW	0	5	2	2	0	0	9
SW	0	7	8	2	0	0	17
WSW	1	0	5	2	0	0	8
W	1	0	7	1	0	0	9
WNW	0	2	2	0	0	0	4
NW	2	4	3	2	0	0	11
NNW	1	5	5	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	7	37	42	10	0	0	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 Station

Period of Record: October - December2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	2	0	0	0	4
NNE	0	2	2	0	0	0	4
NE	0	3	1	0	0	0	4
ENE	1	9	0	0	0	0	10
E	0	2	1	0	0	0	3
ESE	1	2	0	0	0	0	3
SE	0	0	1	0	0	0	1
SSE	0	0	1	0	0	0	1
S	0	0	0	1	0	1	2
SSW	0	1	7	3	0	0	11
SW	0	0	8	3	0	0	11
WSW	0	4	7	3	0	0	14
W	0	2	3	3	0	0	8
WNW	0	1	4	0	0	0	5
NW	1	4	4	1	0	0	10
NNW	1	2	4	0	0	0	7
Variable	0	0	0	0	0	0	0
Total	4	34	45	14	0	1	98

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 Station

Period of Record: October - December2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	21	11	3	0	0	38
NNE	8	44	18	1	0	0	71
NE	7	44	21	0	0	0	72
ENE	15	32	1	0	0	0	48
E	3	29	7	0	0	0	39
ESE	1	5	10	0	0	0	16
SE	1	3	2	1	0	0	7
SSE	1	5	23	4	2	0	35
S	0	8	18	8	2	0	36
SSW	1	5	21	18	4	0	49
SW	1	8	35	12	3	0	59
WSW	3	21	34	13	0	0	71
W	4	30	33	31	4	0	102
WNW	6	27	30	8	0	0	71
NW	0	34	20	4	0	0	58
NNW	4	49	34	8	0	0	95
Variable	0	0	0	0	0	0	0
Total	58	365	318	111	15	0	867

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 Station

Period of Record: October - December2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	8	13	2	0	0	0	23
NNE	5	14	1	0	0	0	20
NE	14	22	1	0	0	0	37
ENE	17	14	1	0	0	0	32
E	13	8	0	0	0	0	21
ESE	8	8	3	0	0	0	19
SE	3	14	5	1	0	0	23
SSE	0	15	6	5	0	0	26
S	0	29	27	9	1	0	66
SSW	0	7	29	38	0	0	74
SW	1	26	60	16	0	0	103
WSW	3	42	18	0	0	0	63
W	12	50	19	0	0	0	81
WNW	15	24	10	0	0	0	49
NW	22	25	6	0	0	0	53
NNW	8	24	3	0	0	0	35
Variable	0	0	0	0	0	0	0
Total	129	335	191	69	1	0	725

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 Station

Period of Record: October - December2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	2	1	0	0	0	0	3
NE	0	0	0	0	0	0	0
ENE	3	0	0	0	0	0	3
E	8	0	0	0	0	0	8
ESE	9	3	0	0	0	0	12
SE	3	3	0	0	0	0	6
SSE	1	1	0	0	0	0	2
S	4	4	0	0	0	0	8
SSW	1	10	8	0	0	0	19
SW	2	7	16	0	0	0	25
WSW	8	33	0	0	0	0	41
W	21	14	0	0	0	0	35
WNW	10	8	0	0	0	0	18
NW	9	1	0	0	0	0	10
NNW	5	4	0	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	86	89	24	0	0	0	199

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 Station

Period of Record: October - December2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	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	7	0	0	0	0	0	7
E	9	0	0	0	0	0	9
ESE	6	0	0	0	0	0	6
SE	1	0	0	0	0	0	1
SSE	2	0	0	0	0	0	2
S	1	0	0	0	0	0	1
SSW	0	0	0	0	0	0	0
SW	4	0	1	0	0	0	5
WSW	1	5	0	0	0	0	6
W	3	7	0	0	0	0	10
WNW	7	0	0	0	0	0	7
NW	4	0	0	0	0	0	4
NNW	2	0	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	47	12	1	0	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

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	4	1	0	0	6
NNE	0	0	1	0	0	0	1
NE	0	0	1	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	2	1	2	0	0	5
ESE	0	4	1	0	0	0	5
SE	0	0	1	0	0	0	1
SSE	0	2	4	3	0	0	9
S	0	0	1	4	0	0	5
SSW	0	0	6	6	0	1	13
SW	0	0	0	6	1	0	7
WSW	0	2	0	0	1	0	3
W	0	6	2	6	0	0	14
WNW	0	2	3	5	0	0	10
NW	0	9	7	6	0	1	23
NNW	0	5	7	6	1	0	19
Variable	0	0	0	0	0	0	0
Total	0	33	39	45	3	2	122

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: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	1	4	0	0	5
NNE	0	0	1	2	0	0	3
NE	0	0	1	0	0	0	1
ENE	0	1	1	0	0	0	2
E	0	3	3	0	0	0	6
ESE	0	1	0	2	0	0	3
SE	1	2	1	1	0	0	5
SSE	0	0	1	0	0	0	1
S	0	1	0	1	1	0	3
SSW	0	2	5	1	1	2	11
SW	0	5	4	5	1	0	15
WSW	0	2	2	2	1	0	7
W	1	0	1	6	1	0	9
WNW	0	1	1	2	0	0	4
NW	1	0	4	2	1	1	9
NNW	0	3	6	3	0	0	12
Variable	0	0	0	0	0	0	0
Total	3	21	32	31	6	3	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: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Unstable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	4	1	0	0	6
NNE	0	0	2	0	0	0	2
NE	1	2	2	1	0	0	6
ENE	0	5	0	0	0	0	5
E	0	2	4	3	0	0	9
ESE	0	2	1	0	0	0	3
SE	0	0	0	1	0	0	1
SSE	0	0	0	1	0	0	1
S	0	0	0	0	1	1	2
SSW	0	1	2	6	3	1	13
SW	0	0	3	4	1	1	9
WSW	0	0	4	6	0	0	10
W	0	2	2	1	0	0	5
WNW	0	1	0	3	0	0	4
NW	0	2	2	4	0	1	9
NNW	0	2	3	2	0	0	7
Variable	0	0	0	0	0	0	0
Total	1	20	29	33	5	4	92

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 6
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Neutral - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	9	21	6	2	1	39
NNE	1	11	20	10	2	0	44
NE	1	22	41	23	2	0	89
ENE	0	16	23	9	0	0	48
E	0	4	28	18	3	0	53
ESE	2	2	2	8	9	1	24
SE	0	1	0	3	0	1	5
SSE	0	4	6	18	6	4	38
S	0	0	10	7	14	8	39
SSW	0	0	4	27	8	15	54
SW	0	5	13	19	3	5	45
WSW	1	10	26	15	5	0	57
W	0	5	25	17	7	3	57
WNW	1	12	17	32	3	4	69
NW	0	4	24	13	9	3	53
NNW	1	14	46	31	8	0	100
Variable	0	0	0	0	0	0	0
Total	7	119	306	256	81	45	814

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 54
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	5	24	3	0	0	32
NNE	0	4	12	2	0	0	18
NE	0	9	22	4	0	0	35
ENE	0	8	17	4	0	0	29
E	1	6	18	7	0	0	32
ESE	0	3	3	6	3	0	15
SE	0	1	8	9	4	1	23
SSE	0	2	8	9	6	0	25
S	1	1	10	19	19	3	53
SSW	0	0	11	45	38	22	116
SW	0	1	12	31	25	3	72
WSW	0	1	13	19	1	0	34
W	0	4	28	31	7	0	70
WNW	0	7	19	21	2	0	49
NW	1	8	22	21	0	0	52
NNW	0	8	31	4	1	0	44
Variable	0	0	0	0	0	0	0
Total	3	68	258	235	106	29	699

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 28
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	4	3	0	0	9
NNE	0	1	1	0	0	0	2
NE	0	2	2	0	0	0	4
ENE	1	2	0	0	0	0	3
E	1	0	3	1	0	0	5
ESE	0	0	2	5	0	0	7
SE	0	0	3	2	0	0	5
SSE	0	4	1	0	0	0	5
S	0	5	3	1	0	0	9
SSW	1	2	10	0	0	0	13
SW	0	2	4	23	6	0	35
WSW	0	3	8	6	0	0	17
W	1	3	13	19	0	0	36
WNW	0	0	17	6	0	0	23
NW	0	1	12	5	0	0	18
NNW	0	2	13	0	0	0	15
Variable	0	0	0	0	0	0	0
Total	4	29	96	71	6	0	206

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 2
Hours of missing stability measurements in all stability classes: 1

Braidwood Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Stable - 203Ft-34Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	2	0	1	0	0	0	3
NE	0	2	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	1	1	0	1	0	0	3
ESE	1	0	2	13	0	0	16
SE	0	1	2	1	0	0	4
SSE	0	1	0	0	0	0	1
S	0	10	1	0	0	0	11
SSW	2	6	0	0	0	0	8
SW	0	4	0	0	1	0	5
WSW	1	2	0	0	0	0	3
W	0	0	2	6	0	0	8
WNW	0	1	1	4	0	0	6
NW	1	3	6	0	0	0	10
NNW	0	1	3	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	9	32	18	25	1	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: 1

APPENDIX III

2002 REMP SAMPLE RESULTS

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LIST OF TABLES

1.0 INTRODUCTION

The following constitutes the 2002 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 2002.			

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Expected Collection Date	Reason

None for 2002.

3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	BD-21	02-28-02	No apparent reason for low reading of 161.4 hrs.
A/I	BD-03	03-14-02	Low reading of 163.9 hrs. possibly due to storms in area.
A	BD-06	10-17-02	Low reading of 72.5 hrs. due to tripped circuit breaker; collector reset breaker; pump appeared to be running normally.

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/m³

Units: 10^{-2} pCi/m³

BD-03 (C) County Line Road

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-03-02	282	2.9 ± 0.4 ; 0.7	0.2 ± 0.5 ; 0.5	07-04-02	283	3.3 ± 0.4 ; 0.7	-0.2 ± 0.4 ; 0.4
01-10-02	292	4.0 ± 0.4 ; 0.8	-	07-11-02	287	2.1 ± 0.4 ; 0.5	
01-17-02	282	2.2 ± 0.3 ; 0.5	-0.2 ± 0.4 ; 0.4	07-18-02	283	2.9 ± 0.4 ; 0.6	-0.0 ± 0.4 ; 0.4
01-24-02	283	3.3 ± 0.4 ; 0.7	-	07-25-02	284	2.0 ± 0.4 ; 0.5	
01-31-02	285	2.2 ± 0.4 ; 0.5	0.0 ± 0.5 ; 0.5	08-01-02	286	3.0 ± 0.4 ; 0.6	-0.0 ± 0.4 ; 0.4
02-07-02	283	3.6 ± 0.4 ; 0.8	-	08-08-02	297	2.4 ± 0.4 ; 0.6	
02-14-02	286	2.7 ± 0.4 ; 0.6	-0.2 ± 0.4 ; 0.4	08-15-02	281	3.0 ± 0.3 ; 0.6	-0.7 ± 0.4 ; 0.4
02-21-02	288	1.6 ± 0.3 ; 0.4	-	08-22-02	279	2.1 ± 0.3 ; 0.5	
02-28-02	290	1.5 ± 0.3 ; 0.4	0.7 ± 0.5 ; 0.6	08-29-02	285	2.1 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
03-07-02	285	3.5 ± 0.4 ; 0.8		09-05-02	283	3.4 ± 0.4 ; 0.7	
03-14-02	278[b]	2.8 ± 0.4 ; 0.6	0.1 ± 0.4 ; 0.4	09-13-02	325	4.5 ± 0.4 ; 0.9	0.0 ± 0.3 ; 0.3
03-21-02	285	2.2 ± 0.4 ; 0.5		09-19-02	240	3.6 ± 0.5 ; 0.8	
03-28-02	280	3.0 ± 0.4 ; 0.7	0.0 ± 0.4 ; 0.4	09-26-02	290	2.1 ± 0.4 ; 0.5	-0.1 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		2.7 ± 0.8	0.1 ± 0.3	3rd Qtr. Mean±s.d.		2.8 ± 0.7	-0.2 ± 0.3
04-04-02	289	2.2 ± 0.3 ; 0.5		10-03-02	280	4.0 ± 0.4 ; 0.8	
04-11-02	290	2.2 ± 0.3 ; 0.5	0.0 ± 0.4 ; 0.4	10-10-02	283	2.8 ± 0.4 ; 0.6	-0.0 ± 0.3 ; 0.3
04-18-02	282	2.4 ± 0.4 ; 0.6		10-17-02	288	3.6 ± 0.4 ; 0.8	
04-25-02	284	1.7 ± 0.3 ; 0.5	0.2 ± 0.5 ; 0.5	10-24-02	294	2.2 ± 0.4 ; 0.5	-0.4 ± 0.4 ; 0.4
05-02-02	288	1.8 ± 0.3 ; 0.5		10-31-02	284	2.7 ± 0.4 ; 0.6	
05-09-02	282	1.9 ± 0.3 ; 0.5	0.3 ± 0.4 ; 0.4	11-07-02	287	4.8 ± 0.5 ; 1.0	-0.0 ± 0.4 ; 0.4
05-16-02	284	2.4 ± 0.3 ; 0.5		11-14-02	294	5.2 ± 0.5 ; 1.1	
05-22-02	248	0.9 ± 0.3 ; 0.3	-0.5 ± 0.5 ; 0.5	11-21-02	280	2.2 ± 0.3 ; 0.5	0.6 ± 0.4 ; 0.4
05-30-02	324	2.0 ± 0.3 ; 0.5		11-27-02	244	2.4 ± 0.4 ; 0.6	
06-06-02	287	2.0 ± 0.3 ; 0.5	-0.1 ± 0.3 ; 0.3	12-05-02	326	2.7 ± 0.3 ; 0.6	-0.1 ± 0.3 ; 0.3
06-13-02	277	1.5 ± 0.3 ; 0.4		12-12-02	283	4.1 ± 0.4 ; 0.9	
06-20-02	285	2.6 ± 0.3 ; 0.6	0.4 ± 0.4 ; 0.4	12-19-02	285	4.4 ± 0.5 ; 0.9	-0.1 ± 0.3 ; 0.3
06-27-02	290	3.2 ± 0.4 ; 0.7		12-26-02	292	2.0 ± 0.3 ; 0.5	
2nd Qtr. Mean±s.d.		2.1 ± 0.6	0.1 ± 0.3	4th Qtr. Mean±s.d.		3.3 ± 1.1	-0.0 ± 0.3

[a] Volume based on two week collection period.

[b] Volume low; low meter reading of 163.9 hours possibly due to storms in area.

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/m³

Units: 10^{-2} pCi/m³

BD-06 Godley

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-03-02	282	3.3 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4	07-04-02	282	2.9 ± 0.3 ; 0.6	-0.5 ± 0.5 ; 0.5
01-10-02	297	4.1 ± 0.4 ; 0.8	-	07-11-02	287	2.6 ± 0.4 ; 0.6	
01-17-02	282	2.7 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4	07-18-02	283	3.4 ± 0.4 ; 0.7	-0.1 ± 0.4 ; 0.4
01-24-02	283	3.3 ± 0.4 ; 0.7	-	07-25-02	284	2.7 ± 0.4 ; 0.6	
01-31-02	285	2.4 ± 0.4 ; 0.6	-0.4 ± 0.4 ; 0.4	08-01-02	286	2.6 ± 0.3 ; 0.6	0.3 ± 0.4 ; 0.4
02-07-02	283	3.8 ± 0.4 ; 0.8	-	08-08-02	296	2.5 ± 0.4 ; 0.6	
02-14-02	285	2.8 ± 0.4 ; 0.6	-0.7 ± 0.5 ; 0.5	08-15-02	282	2.8 ± 0.3 ; 0.6	0.3 ± 0.4 ; 0.4
02-21-02	288	1.6 ± 0.3 ; 0.4	-	08-22-02	279	1.8 ± 0.3 ; 0.4	
02-28-02	285	1.6 ± 0.3 ; 0.4	-0.4 ± 0.4 ; 0.4	08-29-02	285	2.3 ± 0.3 ; 0.5	0.5 ± 0.4 ; 0.4
03-07-02	285	3.5 ± 0.4 ; 0.8		09-05-02	283	2.5 ± 0.4 ; 0.6	
03-14-02	284	3.0 ± 0.4 ; 0.7	-1.0 ± 0.4 ; 0.5	09-13-02	330	3.6 ± 0.4 ; 0.8	0.1 ± 0.3 ; 0.3
03-21-02	285	2.1 ± 0.4 ; 0.5		09-19-02	240	3.3 ± 0.5 ; 0.8	
03-28-02	280	3.0 ± 0.4 ; 0.7	-0.1 ± 0.5 ; 0.5	09-26-02	289	1.9 ± 0.3 ; 0.5	0.1 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		2.9 ± 0.8	-0.4± 0.4	3rd Qtr. Mean±s.d.		2.7 ± 0.6	0.1± 0.3
04-04-02	289	2.0 ± 0.3 ; 0.5		10-03-02	282	4.0 ± 0.4 ; 0.8	
04-11-02	290	2.1 ± 0.3 ; 0.5	0.4 ± 0.4 ; 0.4	10-10-02	293	2.4 ± 0.4 ; 0.6	0.4 ± 0.3 ; 0.3
04-18-02	277	2.6 ± 0.4 ; 0.6		10-17-02	121[b]	0.7 ± 0.5 ; 0.5	
04-25-02	284	1.7 ± 0.3 ; 0.5	0.4 ± 0.4 ; 0.4	10-24-02	284	2.5 ± 0.4 ; 0.6	0.2 ± 0.5 ; 0.5
05-02-02	288	1.8 ± 0.3 ; 0.5		10-31-02	284	2.8 ± 0.4 ; 0.6	
05-09-02	283	1.5 ± 0.3 ; 0.4	0.5 ± 0.4 ; 0.4	11-07-02	287	4.8 ± 0.5 ; 1.0	0.2 ± 0.4 ; 0.4
05-16-02	284	2.2 ± 0.3 ; 0.5		11-14-02	284	3.7 ± 0.4 ; 0.8	
05-22-02	247	0.9 ± 0.3 ; 0.3	-0.3 ± 0.4 ; 0.4	11-21-02	285	2.2 ± 0.3 ; 0.5	-0.3 ± 0.4 ; 0.4
05-30-02	318	1.8 ± 0.3 ; 0.4		11-27-02	244	1.6 ± 0.4 ; 0.5	
06-06-02	287	2.1 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	12-05-02	326	2.7 ± 0.3 ; 0.6	0.0 ± 0.3 ; 0.3
06-13-02	277	1.6 ± 0.3 ; 0.4		12-12-02	283	4.2 ± 0.4 ; 0.9	
06-20-02	285	2.3 ± 0.3 ; 0.5	0.4 ± 0.5 ; 0.5	12-19-02	285	4.1 ± 0.5 ; 0.9	0.1 ± 0.4 ; 0.4
06-27-02	287	3.5 ± 0.4 ; 0.8		12-26-02	292	2.4 ± 0.4 ; 0.6	
2nd Qtr. Mean±s.d.		2.0 ± 0.6	0.3± 0.3	4th Qtr. Mean±s.d.		2.9 ± 1.2	0.1± 0.2

[a] Volume based on two week collection period.

[b] Volume low due to tripped circuit breaker; breaker reset.

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/m³

Units: 10^{-2} pCi/m³

BD-19 Nearsite, NW

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-03-02	284	3.4 ± 0.4 ; 0.7	-0.1 ± 0.4 ; 0.4	07-04-02	282	2.9 ± 0.3 ; 0.6	0.2 ± 0.4 ; 0.4
01-10-02	292	4.1 ± 0.4 ; 0.8	-	07-11-02	287	2.3 ± 0.4 ; 0.6	
01-17-02	286	2.5 ± 0.3 ; 0.6	0.4 ± 0.4 ; 0.4	07-18-02	283	2.9 ± 0.4 ; 0.6	-1.2 ± 0.5 ; 0.6
01-24-02	284	3.7 ± 0.4 ; 0.8	-	07-25-02	284	2.6 ± 0.4 ; 0.6	
01-31-02	285	2.7 ± 0.4 ; 0.6	0.1 ± 0.4 ; 0.4	08-01-02	281	2.7 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4
02-07-02	279	4.1 ± 0.4 ; 0.9	-	08-08-02	296	2.6 ± 0.4 ; 0.6	
02-14-02	289	3.0 ± 0.4 ; 0.7	0.9 ± 0.5 ; 0.5	08-15-02	282	2.8 ± 0.3 ; 0.6	0.1 ± 0.3 ; 0.3
02-21-02	287	1.7 ± 0.3 ; 0.4	-	08-22-02	279	1.6 ± 0.3 ; 0.4	
02-28-02	285	1.8 ± 0.3 ; 0.5	-0.0 ± 0.5 ; 0.5	08-29-02	285	2.2 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
03-07-02	285	3.6 ± 0.4 ; 0.8		09-05-02	283	3.0 ± 0.4 ; 0.7	
03-14-02	284	3.7 ± 0.4 ; 0.8	0.4 ± 0.4 ; 0.4	09-13-02	331	3.4 ± 0.4 ; 0.7	0.2 ± 0.3 ; 0.3
03-21-02	285	2.2 ± 0.4 ; 0.5		09-19-02	239	4.2 ± 0.5 ; 0.9	
03-28-02	280	2.5 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	09-26-02	289	1.7 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		3.0 ± 0.8	0.3± 0.3	3rd Qtr. Mean±s.d.		2.7 ± 0.7	-0.2± 0.5
04-04-02	289	2.2 ± 0.3 ; 0.5		10-03-02	282	4.1 ± 0.4 ; 0.9	
04-11-02	290	2.4 ± 0.3 ; 0.5	-0.4 ± 0.5 ; 0.5	10-10-02	284	2.6 ± 0.4 ; 0.6	-0.4 ± 0.4 ; 0.4
04-18-02	282	2.5 ± 0.4 ; 0.6		10-17-02	288	3.2 ± 0.4 ; 0.7	
04-25-02	283	1.9 ± 0.4 ; 0.5	-0.3 ± 0.5 ; 0.5	10-24-02	284	2.4 ± 0.4 ; 0.6	-0.0 ± 0.3 ; 0.3
05-02-02	289	1.7 ± 0.3 ; 0.4		10-31-02	284	2.8 ± 0.4 ; 0.6	
05-09-02	283	1.8 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4	11-07-02	287	5.3 ± 0.5 ; 1.1	0.0 ± 0.4 ; 0.4
05-16-02	283	2.4 ± 0.3 ; 0.5		11-14-02	284	3.6 ± 0.4 ; 0.8	
05-22-02	247	1.0 ± 0.3 ; 0.3	0.6 ± 0.5 ; 0.5	11-21-02	285	2.3 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4
05-30-02	324	2.0 ± 0.3 ; 0.5		11-27-02	244	1.7 ± 0.4 ; 0.5	
06-06-02	287	2.0 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4	12-05-02	326	2.8 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4
06-13-02	282	1.9 ± 0.4 ; 0.5		12-12-02	283	4.1 ± 0.4 ; 0.9	
06-20-02	285	2.1 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	12-19-02	285	4.3 ± 0.5 ; 0.9	-0.2 ± 0.4 ; 0.4
06-27-02	290	3.2 ± 0.4 ; 0.7		12-26-02	289	2.3 ± 0.4 ; 0.5	
2nd Qtr. Mean±s.d.		2.1 ± 0.5	-0.0± 0.3	4th Qtr. Mean±s.d.		3.2 ± 1.0	-0.2± 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/m³

Units: 10^{-2} pCi/m³

BD-20 Nearsite, N

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-03-02	284	3.4 ± 0.4 ; 0.8	0.1 ± 0.4 ; 0.4	07-04-02	282	3.0 ± 0.3 ; 0.6	-0.0 ± 0.3 ; 0.3
01-10-02	292	4.2 ± 0.4 ; 0.8	-	07-11-02	287	2.2 ± 0.4 ; 0.5	
01-17-02	281	2.9 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4	07-18-02	278	3.2 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
01-24-02	284	3.1 ± 0.4 ; 0.7	-	07-25-02	284	2.6 ± 0.4 ; 0.6	
01-31-02	285	2.6 ± 0.4 ; 0.6	-0.6 ± 0.5 ; 0.5	08-01-02	286	2.9 ± 0.3 ; 0.6	0.2 ± 0.4 ; 0.4
02-07-02	279	4.1 ± 0.4 ; 0.9	-	08-08-02	296	3.0 ± 0.4 ; 0.7	
02-14-02	289	3.0 ± 0.4 ; 0.7	-0.4 ± 0.5 ; 0.5	08-15-02	282	3.2 ± 0.4 ; 0.7	-0.1 ± 0.4 ; 0.4
02-21-02	287	1.5 ± 0.3 ; 0.4	-	08-22-02	279	2.0 ± 0.3 ; 0.5	
02-28-02	285	1.6 ± 0.3 ; 0.4	-0.0 ± 0.5 ; 0.5	08-29-02	285	2.5 ± 0.3 ; 0.6	-0.4 ± 0.4 ; 0.5
03-07-02	285	4.0 ± 0.4 ; 0.8		09-05-02	282	3.3 ± 0.4 ; 0.7	
03-14-02	279	2.8 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5	09-13-02	333	3.5 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
03-21-02	285	2.5 ± 0.4 ; 0.6		09-19-02	239	3.8 ± 0.5 ; 0.8	
03-28-02	280	3.1 ± 0.4 ; 0.7	-0.4 ± 0.5 ; 0.5	09-26-02	289	2.0 ± 0.4 ; 0.5	0.0 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		3.0 ± 0.8	-0.2 ± 0.3	3rd Qtr. Mean±s.d.		2.9 ± 0.6	-0.0 ± 0.2
04-04-02	294	2.2 ± 0.3 ; 0.5		10-03-02	282	4.3 ± 0.5 ; 0.9	
04-11-02	290	2.5 ± 0.3 ; 0.6	-0.2 ± 0.5 ; 0.5	10-10-02	284	3.0 ± 0.4 ; 0.7	-0.2 ± 0.4 ; 0.4
04-18-02	282	2.2 ± 0.4 ; 0.5		10-17-02	288	3.6 ± 0.4 ; 0.8	
04-25-02	283	1.6 ± 0.3 ; 0.4	-0.1 ± 0.5 ; 0.5	10-24-02	284	2.7 ± 0.4 ; 0.6	0.3 ± 0.3 ; 0.3
05-02-02	289	1.6 ± 0.3 ; 0.4		10-31-02	284	3.2 ± 0.4 ; 0.7	
05-09-02	278	1.8 ± 0.3 ; 0.5	0.3 ± 0.5 ; 0.5	11-07-02	287	4.5 ± 0.5 ; 0.9	-0.1 ± 0.3 ; 0.3
05-16-02	283	2.4 ± 0.3 ; 0.5		11-14-02	284	4.2 ± 0.5 ; 0.9	
05-22-02	247	1.2 ± 0.3 ; 0.4	0.2 ± 0.4 ; 0.4	11-21-02	285	2.3 ± 0.3 ; 0.5	-0.0 ± 0.3 ; 0.3
05-30-02	325	1.8 ± 0.3 ; 0.4		11-27-02	244	1.9 ± 0.4 ; 0.5	
06-06-02	287	2.4 ± 0.4 ; 0.6	0.1 ± 0.4 ; 0.4	12-05-02	326	2.5 ± 0.3 ; 0.5	-0.1 ± 0.3 ; 0.3
06-13-02	282	1.8 ± 0.3 ; 0.5		12-12-02	283	3.9 ± 0.4 ; 0.8	
06-20-02	285	2.2 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	12-19-02	285	4.4 ± 0.5 ; 0.9	-0.3 ± 0.4 ; 0.4
06-27-02	290	3.2 ± 0.4 ; 0.7		12-26-02	289	2.8 ± 0.4 ; 0.6	
2nd Qtr. Mean±s.d.		2.1 ± 0.5	0.1 ± 0.2	4th Qtr. Mean±s.d.		3.3 ± 0.9	-0.1 ± 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/m³

Units: 10^{-2} pCi/m³

BD-21 Nearsite, NE

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-03-02	283	3.7 ± 0.4 ; 0.8	0.5 ± 0.3 ; 0.4	07-04-02	282	3.0 ± 0.3 ; 0.6	-0.0 ± 0.4 ; 0.4
01-10-02	297	4.2 ± 0.4 ; 0.8	-	07-11-02	287	2.6 ± 0.4 ; 0.6	
01-17-02	287	2.6 ± 0.3 ; 0.6	0.8 ± 0.4 ; 0.5	07-18-02	283	3.0 ± 0.4 ; 0.6	0.3 ± 0.4 ; 0.4
01-24-02	283	4.3 ± 0.4 ; 0.9	-	07-25-02	284	2.5 ± 0.4 ; 0.6	
01-31-02	285	2.7 ± 0.4 ; 0.6	-0.5 ± 0.5 ; 0.5	08-01-02	286	2.9 ± 0.3 ; 0.6	0.5 ± 0.4 ; 0.5
02-07-02	280	3.5 ± 0.4 ; 0.7	-	08-08-02	296	2.6 ± 0.4 ; 0.6	
02-14-02	289	3.1 ± 0.4 ; 0.7	-0.5 ± 0.5 ; 0.5	08-15-02	282	3.0 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4
02-21-02	287	1.7 ± 0.3 ; 0.4	-	08-22-02	279	2.2 ± 0.3 ; 0.5	
02-28-02	274[b]	1.8 ± 0.4 ; 0.5	-0.5 ± 0.5 ; 0.5	08-29-02	283	1.9 ± 0.3 ; 0.5	0.6 ± 0.4 ; 0.5
03-07-02	285	4.0 ± 0.4 ; 0.8		09-05-02	284	3.2 ± 0.4 ; 0.7	
03-14-02	284	2.8 ± 0.4 ; 0.6	-0.3 ± 0.5 ; 0.5	09-13-02	331	4.2 ± 0.4 ; 0.9	0.1 ± 0.3 ; 0.3
03-21-02	285	2.3 ± 0.4 ; 0.6		09-19-02	248	4.4 ± 0.5 ; 0.9	
03-28-02	280	3.4 ± 0.4 ; 0.7	1.0 ± 0.4 ; 0.5	09-26-02	289	2.1 ± 0.4 ; 0.5	-0.2 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		3.1 ± 0.8	0.1 ± 0.7	3rd Qtr. Mean±s.d.		2.9 ± 0.7	0.1 ± 0.3
04-04-02	289	2.2 ± 0.3 ; 0.5		10-03-02	291	4.3 ± 0.4 ; 0.9	
04-11-02	289	2.3 ± 0.3 ; 0.5	0.0 ± 0.4 ; 0.4	10-10-02	283	2.6 ± 0.4 ; 0.6	0.2 ± 0.3 ; 0.3
04-18-02	282	2.5 ± 0.4 ; 0.6		10-17-02	287	3.3 ± 0.4 ; 0.7	
04-25-02	284	1.9 ± 0.4 ; 0.5	-0.4 ± 0.5 ; 0.5	10-24-02	289	2.9 ± 0.4 ; 0.7	-0.0 ± 0.4 ; 0.4
05-02-02	288	1.7 ± 0.3 ; 0.5		10-31-02	284	3.3 ± 0.4 ; 0.7	
05-09-02	283	1.5 ± 0.3 ; 0.4	-0.2 ± 0.4 ; 0.4	11-07-02	287	5.3 ± 0.5 ; 1.1	0.2 ± 0.3 ; 0.3
05-16-02	284	2.4 ± 0.3 ; 0.5		11-14-02	289	4.1 ± 0.4 ; 0.9	
05-22-02	247	1.3 ± 0.3 ; 0.4	0.8 ± 0.5 ; 0.5	11-21-02	285	2.2 ± 0.3 ; 0.5	0.3 ± 0.4 ; 0.4
05-30-02	324	2.0 ± 0.3 ; 0.5		11-27-02	244	2.1 ± 0.4 ; 0.5	
06-06-02	287	2.4 ± 0.4 ; 0.6	-0.6 ± 0.4 ; 0.4	12-05-02	327	2.9 ± 0.3 ; 0.6	-0.1 ± 0.3 ; 0.3
06-13-02	282	2.0 ± 0.4 ; 0.5		12-12-02	282	4.5 ± 0.5 ; 0.9	
06-20-02	285	2.0 ± 0.3 ; 0.5	-0.0 ± 0.3 ; 0.3	12-19-02	291	4.1 ± 0.5 ; 0.9	-0.1 ± 0.3 ; 0.3
06-27-02	290	2.9 ± 0.4 ; 0.7		12-26-02	289	2.5 ± 0.4 ; 0.6	
2nd Qtr. Mean±s.d.		2.1 ± 0.5	-0.1 ± 0.5	4th Qtr. Mean±s.d.		3.4 ± 1.0	0.1 ± 0.2

[a] Volume based on two week collection period.

[b] Volume low; no apparent reason for low meter reading of 161.4 hrs.

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections
ODCM-
Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³
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/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

BD-03 (C) County Line Road

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2798,9	BDAP-5009	BDAP-7223	BDAP-8922
Volume	3,705	3,714	3,708	3,727
Mn-54	6.5 ± 4.2 ; 4.3	1.5 ± 4.8 ; 4.8	6.4 ± 5.6 ; 5.7	1.5 ± 4.6 ; 4.6
Fe-59	-1.7 ± 8.6 ; 8.6	-20.5 ± 11.4 ; 12.0	12.0 ± 9.9 ; 10.1	14.8 ± 10.1 ; 10.4
Co-58	-3.0 ± 4.4 ; 4.4	1.5 ± 5.2 ; 5.2	-5.8 ± 5.3 ; 5.4	6.3 ± 4.3 ; 4.5
Co-60	8.3 ± 4.1 ; 4.4	-0.7 ± 7.1 ; 7.1	0.4 ± 7.2 ; 7.2	3.9 ± 8.0 ; 8.0
Zn-65	6.6 ± 8.3 ; 8.4	14.1 ± 9.3 ; 9.7	14.6 ± 8.6 ; 9.0	4.9 ± 10.3 ; 10.4
Zr/Nb-95	-10.1 ± 4.2 ; 4.5	-4.2 ± 6.2 ; 6.2	8.4 ± 13.2 ; 13.3	-2.9 ± 8.8 ; 8.8
Cs-134	4.5 ± 4.7 ; 4.8	1.2 ± 5.9 ; 5.9	-4.7 ± 6.0 ; 6.1	3.7 ± 4.7 ; 4.7
Cs-137	4.0 ± 5.1 ; 5.2	1.5 ± 5.9 ; 5.9	0.5 ± 5.4 ; 5.4	5.0 ± 4.9 ; 5.0
Ba/La-140	-14.6 ± 5.5 ; 6.1	-71.9 ± 9.5 ; 15.9	-155.9 ± 11.2 ; 29.9	-68.4 ± 5.3 ; 13.3

BD-06 Godley

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2800	BDAP-5010,1	BDAP-7224	BDAP-8923
Volume	3,710	3,720	3,712	3,557
Mn-54	4.2 ± 4.5 ; 4.5	-0.3 ± 4.0 ; 4.0	7.6 ± 5.7 ; 5.9	1.3 ± 5.5 ; 5.5
Fe-59	-11.9 ± 12.8 ; 13.0	12.2 ± 6.8 ; 7.2	10.8 ± 7.8 ; 8.1	-41.5 ± 12.8 ; 14.8
Co-58	-9.1 ± 5.5 ; 5.8	-3.3 ± 3.8 ; 3.8	-1.6 ± 5.3 ; 5.3	-8.2 ± 6.2 ; 6.3
Co-60	2.6 ± 8.0 ; 8.0	0.7 ± 4.6 ; 4.6	1.9 ± 4.8 ; 4.9	0.2 ± 4.4 ; 4.4
Zn-65	-22.2 ± 15.5 ; 16.0	5.3 ± 10.7 ; 10.7	-16.2 ± 15.6 ; 15.8	-11.9 ± 14.3 ; 14.5
Zr/Nb-95	-6.8 ± 5.2 ; 5.4	5.0 ± 3.6 ; 3.7	5.5 ± 11.1 ; 11.2	2.7 ± 5.3 ; 5.3
Cs-134	10.4 ± 6.4 ; 6.7	-6.1 ± 4.9 ; 5.0	-1.3 ± 6.1 ; 6.1	-8.5 ± 6.7 ; 6.9
Cs-137	2.2 ± 6.0 ; 6.0	-0.9 ± 4.5 ; 4.5	-1.1 ± 5.2 ; 5.2	-4.9 ± 6.8 ; 6.9
Ba/La-140	69.7 ± 6.5 ; 14.0	16.5 ± 4.7 ; 5.5	29.0 ± 3.7 ; 6.3	9.5 ± 6.0 ; 6.3

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections

ODCM-Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³

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/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

BD-19 Nearsite, NW

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2801	BDAP-5012	BDAP-7225	BDAP-8924
Volume	3,711	3,720	3,708	3,712
Mn-54	-3.8 ± 7.0 ; 7.0	3.4 ± 6.1 ; 6.2	3.1 ± 5.6 ; 5.6	2.5 ± 5.4 ; 5.5
Fe-59	13.4 ± 9.8 ; 10.1	2.9 ± 10.6 ; 10.6	-21.7 ± 11.5 ; 12.2	9.9 ± 9.5 ; 9.7
Co-58	-6.0 ± 6.1 ; 6.2	3.3 ± 6.2 ; 6.2	6.9 ± 5.0 ; 5.2	-12.2 ± 5.8 ; 6.2
Co-60	-4.8 ± 9.2 ; 9.2	2.4 ± 6.0 ; 6.1	-0.4 ± 7.0 ; 7.0	4.5 ± 5.6 ; 5.7
Zn-65	5.0 ± 9.8 ; 9.9	1.0 ± 14.2 ; 14.2	-8.9 ± 15.6 ; 15.6	8.1 ± 11.1 ; 11.2
Zr/Nb-95	0.7 ± 4.7 ; 4.7	6.2 ± 5.3 ; 5.4	-4.8 ± 5.3 ; 5.3	-11.3 ± 11.9 ; 12.1
Cs-134	-4.9 ± 6.9 ; 7.0	2.0 ± 6.1 ; 6.1	12.2 ± 5.9 ; 6.3	0.9 ± 5.4 ; 5.4
Cs-137	1.3 ± 7.0 ; 7.0	-2.0 ± 6.3 ; 6.3	2.4 ± 7.0 ; 7.0	3.2 ± 6.0 ; 6.0
Ba/La-140	-64.1 ± 9.8 ; 15.0	-1.9 ± 6.7 ; 6.7	27.5 ± 6.5 ; 8.1	32.7 ± 3.7 ; 6.9

BD-20 Nearsite, N

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2802	BDAP-5013	BDAP-7226	BDAP-8925
Volume	3,702	3,720	3,708	3,712
Mn-54	5.7 ± 6.6 ; 6.7	-1.1 ± 6.7 ; 6.7	4.3 ± 4.5 ; 4.6	-3.7 ± 6.5 ; 6.5
Fe-59	8.9 ± 11.6 ; 11.7	2.9 ± 10.1 ; 10.1	2.4 ± 11.5 ; 11.5	14.9 ± 10.1 ; 10.5
Co-58	-0.5 ± 4.8 ; 4.8	-1.8 ± 6.0 ; 6.1	10.3 ± 5.0 ; 5.3	-4.1 ± 5.0 ; 5.0
Co-60	7.7 ± 5.6 ; 5.8	2.4 ± 6.0 ; 6.1	0.3 ± 5.9 ; 5.9	4.4 ± 3.8 ; 3.9
Zn-65	4.0 ± 12.5 ; 12.5	-2.0 ± 10.8 ; 10.8	-6.5 ± 11.6 ; 11.6	2.4 ± 7.3 ; 7.3
Zr/Nb-95	-1.8 ± 12.8 ; 12.8	-6.7 ± 5.2 ; 5.4	7.1 ± 5.4 ; 5.6	-5.0 ± 5.2 ; 5.3
Cs-134	2.2 ± 5.3 ; 5.3	-3.1 ± 6.6 ; 6.6	0.8 ± 6.0 ; 6.0	1.5 ± 5.5 ; 5.5
Cs-137	0.8 ± 6.3 ; 6.3	3.4 ± 6.8 ; 6.9	2.6 ± 6.3 ; 6.3	-1.2 ± 5.6 ; 5.6
Ba/La-140	11.7 ± 2.7 ; 3.4	-1.9 ± 6.7 ; 6.7	-103.9 ± 8.1 ; 20.2	-1.8 ± 5.4 ; 5.4

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections
ODCM-
Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³
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/m³

Units: 10^{-3} pCi/m³

Sample Description and Concentration

BD-21 Nearsite, NE

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2803	BDAP-5014	BDAP-7227	BDAP-8926
Volume	3,705	3,719	3,720	3,734
Mn-54	5.7 ± 4.9 ; 5.0	0.8 ± 4.6 ; 4.6	-2.1 ± 7.2 ; 7.2	-2.4 ± 4.4 ; 4.5
Fe-59	20.9 ± 8.3 ; 9.1	-14.7 ± 12.3 ; 12.6	12.0 ± 9.8 ; 10.1	-22.3 ± 11.5 ; 12.1
Co-58	6.7 ± 5.3 ; 5.4	4.3 ± 6.3 ; 6.4	-1.6 ± 5.3 ; 5.3	-9.5 ± 5.6 ; 5.9
Co-60	1.5 ± 7.7 ; 7.7	-1.6 ± 8.5 ; 8.5	-3.9 ± 6.1 ; 6.1	3.6 ± 5.4 ; 5.4
Zn-65	3.0 ± 14.6 ; 14.6	3.0 ± 9.1 ; 9.1	4.0 ± 12.0 ; 12.0	7.3 ± 8.8 ; 8.9
Zr/Nb-95	-3.2 ± 9.5 ; 9.5	-19.9 ± 13.8 ; 14.3	-11.0 ± 11.9 ; 12.1	-5.0 ± 5.2 ; 5.3
Cs-134	6.1 ± 7.0 ; 7.1	0.4 ± 5.7 ; 5.7	7.7 ± 4.9 ; 5.1	-3.2 ± 5.7 ; 5.7
Cs-137	8.4 ± 6.1 ; 6.2	-4.0 ± 5.9 ; 5.9	-1.5 ± 4.6 ; 4.6	3.2 ± 5.9 ; 6.0
Ba/La-140	9.8 ± 7.2 ; 7.4	-14.9 ± 9.1 ; 9.4	27.6 ± 6.5 ; 8.1	-127.3 ± 7.8 ; 24.0

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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	01-03-02	02-07-02	03-07-02	04-04-02
Lab Code	BDMI-41	BDMI-778	BDMI-1456	BDMI-2060
I-131	-0.07 ± 0.17 ; 0.17	0.16 ± 0.22 ; 0.22	-0.06 ± 0.16 ; 0.16	0.10 ± 0.17 ; 0.17
Mn-54	0.5 ± 1.4 ; 1.4	-1.4 ± 3.2 ; 3.2	1.3 ± 3.6 ; 3.6	-1.0 ± 3.2 ; 3.2
Fe-59	-0.9 ± 3.0 ; 3.1	6.6 ± 8.2 ; 8.3	-6.8 ± 8.3 ; 8.4	-6.7 ± 7.4 ; 7.5
Co-58	0.2 ± 1.4 ; 1.4	1.5 ± 3.8 ; 3.8	0.4 ± 3.5 ; 3.5	-1.2 ± 3.4 ; 3.4
Co-60	1.4 ± 1.7 ; 1.7	-2.3 ± 3.7 ; 3.8	-1.0 ± 4.4 ; 4.4	4.9 ± 3.9 ; 4.0
Zn-65	0.1 ± 3.5 ; 3.5	1.1 ± 7.8 ; 7.8	2.1 ± 8.4 ; 8.4	-1.9 ± 8.8 ; 8.8
Zr/Nb-95	-0.7 ± 1.7 ; 1.7	4.1 ± 3.4 ; 3.5	1.1 ± 3.7 ; 3.7	-1.1 ± 3.5 ; 3.5
Cs-134	2.1 ± 1.8 ; 1.8	5.1 ± 3.8 ; 3.8	-2.2 ± 4.6 ; 4.6	0.2 ± 3.9 ; 3.9
Cs-137	0.9 ± 1.9 ; 1.9	1.8 ± 3.6 ; 3.6	1.8 ± 3.9 ; 3.9	-0.2 ± 3.3 ; 3.3
Ba/La-140	-1.0 ± 1.2 ; 1.2	2.4 ± 3.8 ; 3.8	-6.7 ± 4.0 ; 4.1	-1.5 ± 3.5 ; 3.5

Date Collected	05-02-02	05-16-02	05-30-02	06-13-02
Lab Code	BDMI-2934	BDMI-3246	BDMI-3477	BDMI-3830
I-131	0.14 ± 0.17 ; 0.17	0.05 ± 0.22 ; 0.22	-0.03 ± 0.20 ; 0.20	-0.27 ± 0.17 ; 0.18
Mn-54	0.6 ± 1.8 ; 1.8	0.6 ± 1.9 ; 1.9	0.1 ± 2.1 ; 2.1	0.3 ± 3.3 ; 3.3
Fe-59	2.2 ± 3.4 ; 3.5	4.1 ± 4.1 ; 4.2	3.3 ± 4.7 ; 4.7	-6.6 ± 7.2 ; 7.3
Co-58	2.3 ± 1.8 ; 1.9	-0.3 ± 1.8 ; 1.8	-1.6 ± 2.1 ; 2.1	0.5 ± 2.9 ; 2.9
Co-60	1.5 ± 2.5 ; 2.5	1.0 ± 2.4 ; 2.4	1.0 ± 2.4 ; 2.4	0.6 ± 3.7 ; 3.7
Zn-65	-5.6 ± 5.0 ; 5.0	2.9 ± 4.8 ; 4.8	-6.2 ± 5.1 ; 5.2	0.3 ± 7.7 ; 7.7
Zr/Nb-95	0.9 ± 1.9 ; 1.9	2.5 ± 4.2 ; 4.2	2.0 ± 2.2 ; 2.2	3.1 ± 2.9 ; 3.0
Cs-134	-1.2 ± 2.1 ; 2.1	-1.7 ± 2.4 ; 2.4	-1.0 ± 2.4 ; 2.4	1.3 ± 3.7 ; 3.7
Cs-137	1.1 ± 2.0 ; 2.0	0.9 ± 2.3 ; 2.3	0.3 ± 2.2 ; 2.2	0.7 ± 3.9 ; 3.9
Ba/La-140	7.1 ± 1.6 ; 1.9	-2.9 ± 1.7 ; 1.8	-2.2 ± 2.1 ; 2.1	0.7 ± 3.7 ; 3.7

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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	06-27-02	07-11-02	07-25-02	08-08-02
Lab Code	BDMI-4272	BDMI-4555	BDMI-4960	BDMI-5263,4
I-131	-0.27 ± 0.17 ; 0.18	-0.01 ± 0.20 ; 0.20	0.12 ± 0.15 ; 0.15	-0.05 ± 0.17 ; 0.17
Mn-54	-2.9 ± 2.3 ; 2.4	0.8 ± 1.0 ; 1.0	-0.5 ± 3.0 ; 3.0	-0.5 ± 3.0 ; 3.0
Fe-59	0.5 ± 5.6 ; 5.6	0.7 ± 2.1 ; 2.1	-4.3 ± 6.6 ; 6.6	-4.3 ± 6.6 ; 6.6
Co-58	-1.3 ± 2.7 ; 2.7	0.3 ± 0.9 ; 0.9	2.1 ± 2.9 ; 2.9	2.1 ± 2.9 ; 2.9
Co-60	1.4 ± 2.6 ; 2.6	-0.7 ± 1.1 ; 1.1	-1.0 ± 3.5 ; 3.5	-1.0 ± 3.5 ; 3.5
Zn-65	2.6 ± 6.3 ; 6.3	-0.3 ± 2.5 ; 2.5	0.5 ± 7.0 ; 7.0	0.5 ± 7.0 ; 7.0
Zr/Nb-95	-7.5 ± 5.9 ; 6.0	-0.3 ± 1.0 ; 1.0	1.6 ± 2.6 ; 2.6	1.6 ± 2.6 ; 2.6
Cs-134	-0.3 ± 2.8 ; 2.8	0.5 ± 1.2 ; 1.2	1.2 ± 3.5 ; 3.5	1.2 ± 3.5 ; 3.5
Cs-137	-1.7 ± 2.6 ; 2.6	0.3 ± 1.0 ; 1.0	-2.5 ± 3.0 ; 3.0	-2.5 ± 3.0 ; 3.0
Ba/La-140	1.2 ± 2.5 ; 2.5	-2.1 ± 1.1 ; 1.1	-5.4 ± 3.2 ; 3.3	-5.4 ± 3.2 ; 3.3

Date Collected	08-22-02	09-05-02	09-19-02	10-03-02
Lab Code	BDMI-5536	BDMI-5784	BDMI-6165	BDMI-6529
I-131	-0.02 ± 0.13 ; 0.13	-0.11 ± 0.21 ; 0.21	-0.18 ± 0.17 ; 0.17	-0.13 ± 0.14 ; 0.14
Mn-54	-0.4 ± 2.6 ; 2.6	-1.9 ± 2.4 ; 2.4	-0.3 ± 2.5 ; 2.5	0.2 ± 2.0 ; 2.0
Fe-59	1.4 ± 5.5 ; 5.5	1.2 ± 6.0 ; 6.0	-0.4 ± 5.3 ; 5.3	1.3 ± 4.6 ; 4.7
Co-58	1.1 ± 2.7 ; 2.7	0.6 ± 2.3 ; 2.3	0.2 ± 2.3 ; 2.3	1.1 ± 2.2 ; 2.2
Co-60	-1.2 ± 3.0 ; 3.0	-0.4 ± 2.5 ; 2.5	-1.6 ± 2.3 ; 2.3	-1.5 ± 2.1 ; 2.1
Zn-65	-1.9 ± 5.7 ; 5.7	1.2 ± 6.3 ; 6.3	-2.2 ± 6.4 ; 6.4	-5.1 ± 5.5 ; 5.6
Zr/Nb-95	2.4 ± 2.4 ; 2.4	0.4 ± 2.1 ; 2.1	-0.1 ± 2.3 ; 2.3	1.7 ± 2.1 ; 2.1
Cs-134	-1.0 ± 3.0 ; 3.0	1.1 ± 2.6 ; 2.6	-0.7 ± 2.6 ; 2.6	-1.9 ± 2.5 ; 2.5
Cs-137	2.9 ± 2.6 ; 2.6	0.7 ± 2.8 ; 2.8	-1.8 ± 2.7 ; 2.7	-2.0 ± 2.4 ; 2.4
Ba/La-140	-3.3 ± 2.8 ; 2.8	0.5 ± 2.5 ; 2.5	-0.9 ± 2.4 ; 2.4	1.3 ± 2.1 ; 2.1

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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	10-17-02	10-31-02	11-14-02	12-05-02
Lab Code	BDMI-7003	BDMI-7452,3	BDMI-7809	BDMI-8141
I-131	0.08 ± 0.36 ; 0.37	0.03 ± 0.15 ; 0.15	-0.11 ± 0.18 ; 0.18	-0.08 ± 0.15 ; 0.15
Mn-54	1.6 ± 2.4 ; 2.4	0.6 ± 1.4 ; 1.4	0.7 ± 1.7 ; 1.7	-4.9 ± 4.1 ; 4.1
Fe-59	-1.7 ± 5.3 ; 5.3	-2.7 ± 3.0 ; 3.0	-6.4 ± 4.6 ; 4.6	3.7 ± 8.1 ; 8.1
Co-58	-1.9 ± 2.1 ; 2.1	-0.5 ± 1.2 ; 1.2	0.1 ± 2.0 ; 2.0	1.0 ± 4.2 ; 4.2
Co-60	1.3 ± 2.6 ; 2.6	0.9 ± 1.6 ; 1.6	-1.0 ± 2.1 ; 2.1	3.3 ± 4.8 ; 4.9
Zn-65	-2.9 ± 5.4 ; 5.4	3.2 ± 3.6 ; 3.6	2.1 ± 4.3 ; 4.3	2.7 ± 9.5 ; 9.5
Zr/Nb-95	0.2 ± 2.3 ; 2.3	-1.7 ± 3.0 ; 3.0	-2.0 ± 2.0 ; 2.0	-1.0 ± 3.9 ; 3.9
Cs-134	-0.6 ± 2.5 ; 2.5	1.1 ± 1.5 ; 1.5	-0.6 ± 1.8 ; 1.8	3.2 ± 4.6 ; 4.6
Cs-137	0.2 ± 2.4 ; 2.4	1.2 ± 1.6 ; 1.6	-1.3 ± 1.9 ; 1.9	1.6 ± 4.0 ; 4.0
Ba/La-140	0.5 ± 2.2 ; 2.2	2.5 ± 1.4 ; 1.5	-5.2 ± 1.7 ; 1.9	-4.1 ± 4.3 ; 4.3

BRAIDWOOD

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	01-02-02	02-07-02	03-07-02	04-04-02
Lab Code	BDMI-42	BDMI-779	BDMI-1457	BDMI-2061
I-131	-0.02 ± 0.17 ; 0.17	0.08 ± 0.20 ; 0.20	-0.12 ± 0.18 ; 0.18	0.02 ± 0.19 ; 0.19
Mn-54	-1.1 ± 1.8 ; 1.8	-1.6 ± 3.8 ; 3.8	2.7 ± 3.9 ; 3.9	-2.0 ± 2.9 ; 2.9
Fe-59	-2.6 ± 3.8 ; 3.8	-3.2 ± 7.7 ; 7.7	-2.4 ± 8.0 ; 8.0	-0.3 ± 6.0 ; 6.0
Co-58	0.2 ± 1.8 ; 1.8	-3.7 ± 3.9 ; 4.0	0.0 ± 3.9 ; 3.9	-1.1 ± 3.1 ; 3.1
Co-60	3.0 ± 2.0 ; 2.0	1.1 ± 4.8 ; 4.8	-0.4 ± 2.6 ; 2.6	-0.7 ± 3.1 ; 3.2
Zn-65	-3.1 ± 5.4 ; 5.4	-4.1 ± 8.7 ; 8.7	2.3 ± 6.9 ; 6.9	2.8 ± 6.8 ; 6.8
Zr/Nb-95	-1.5 ± 1.7 ; 1.7	-3.0 ± 3.7 ; 3.7	1.9 ± 3.3 ; 3.3	-1.0 ± 3.2 ; 3.2
Cs-134	1.3 ± 1.8 ; 1.8	2.9 ± 3.8 ; 3.8	0.8 ± 3.7 ; 3.7	-0.9 ± 3.9 ; 3.9
Cs-137	0.5 ± 1.9 ; 1.9	1.6 ± 3.3 ; 3.3	1.7 ± 3.8 ; 3.8	2.6 ± 3.7 ; 3.7
Ba/La-140	0.4 ± 1.7 ; 1.7	0.8 ± 4.3 ; 4.3	1.5 ± 3.6 ; 3.6	1.0 ± 3.6 ; 3.7

Date Collected	05-02-02	05-16-02	05-30-02	06-13-02
Lab Code	BDMI-2935	BDMI-3247	BDMI-3478	BDMI-3831
I-131	0.05 ± 0.17 ; 0.17	-0.13 ± 0.22 ; 0.22	-0.21 ± 0.19 ; 0.19	-0.12 ± 0.19 ; 0.19
Mn-54	-1.5 ± 1.6 ; 1.6	-0.7 ± 1.9 ; 1.9	1.3 ± 2.0 ; 2.0	0.3 ± 3.3 ; 3.3
Fe-59	-3.4 ± 3.8 ; 3.8	-5.8 ± 4.4 ; 4.5	-3.4 ± 4.4 ; 4.4	5.3 ± 6.9 ; 6.9
Co-58	-1.7 ± 1.5 ; 1.5	0.4 ± 1.7 ; 1.7	-1.3 ± 1.6 ; 1.6	2.0 ± 3.1 ; 3.1
Co-60	0.7 ± 1.9 ; 1.9	0.6 ± 2.4 ; 2.4	2.4 ± 2.3 ; 2.3	2.5 ± 3.5 ; 3.5
Zn-65	-1.5 ± 4.3 ; 4.3	2.8 ± 5.1 ; 5.1	-4.8 ± 5.1 ; 5.1	-2.5 ± 7.8 ; 7.8
Zr/Nb-95	0.7 ± 1.7 ; 1.7	-1.7 ± 1.9 ; 1.9	-0.3 ± 2.1 ; 2.1	0.6 ± 2.8 ; 2.8
Cs-134	-0.5 ± 1.8 ; 1.8	-0.1 ± 2.2 ; 2.2	-0.5 ± 2.0 ; 2.0	-1.5 ± 3.7 ; 3.7
Cs-137	0.9 ± 1.9 ; 1.9	-0.8 ± 2.1 ; 2.1	-1.9 ± 2.2 ; 2.2	1.1 ± 3.5 ; 3.5
Ba/La-140	-1.1 ± 1.6 ; 1.6	2.7 ± 2.1 ; 2.1	5.0 ± 2.0 ; 2.1	1.6 ± 2.8 ; 2.8

BRAIDWOOD

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	06-27-02	07-11-02	07-25-02	08-08-02
Lab Code	BDMI-4273	BDMI-4556	BDMI-4961,2	BDMI-5265
I-131	-0.15 ± 0.18 ; 0.18	-0.29 ± 0.19 ; 0.20	-0.00 ± 0.14 ; 0.14	-0.01 ± 0.26 ; 0.26
Mn-54	-0.6 ± 1.5 ; 1.5	-0.3 ± 0.7 ; 0.7	-1.5 ± 1.7 ; 1.7	-1.3 ± 3.6 ; 3.6
Fe-59	-1.2 ± 3.3 ; 3.3	-0.4 ± 1.5 ; 1.5	-0.6 ± 3.7 ; 3.7	-1.4 ± 7.5 ; 7.5
Co-58	0.3 ± 1.5 ; 1.5	-0.2 ± 0.7 ; 0.7	-1.7 ± 1.7 ; 1.7	-0.0 ± 3.3 ; 3.3
Co-60	-0.2 ± 1.7 ; 1.7	0.7 ± 0.8 ; 0.8	0.6 ± 2.1 ; 2.1	0.6 ± 4.0 ; 4.0
Zn-65	-2.8 ± 3.8 ; 3.8	-2.5 ± 1.9 ; 1.9	-2.2 ± 4.2 ; 4.2	-3.6 ± 8.3 ; 8.3
Zr/Nb-95	-1.1 ± 1.6 ; 1.6	-1.2 ± 0.7 ; 0.8	-0.4 ± 1.5 ; 1.5	0.7 ± 3.4 ; 3.4
Cs-134	-0.7 ± 1.5 ; 1.5	-0.7 ± 0.8 ; 0.8	1.9 ± 2.0 ; 2.0	0.7 ± 3.5 ; 3.5
Cs-137	0.9 ± 1.8 ; 1.8	0.5 ± 0.8 ; 0.8	1.6 ± 2.0 ; 2.0	-1.8 ± 4.0 ; 4.1
Ba/La-140	-6.0 ± 1.5 ; 1.7	-2.4 ± 0.7 ; 0.8	-0.8 ± 1.7 ; 1.7	1.0 ± 3.0 ; 3.0

Date Collected	08-22-02	09-05-02	09-19-02	10-03-02
Lab Code	BDMI-5537	BDMI-5785	BDMI-6166	BDMI-6530
I-131	0.02 ± 0.13 ; 0.13	-0.13 ± 0.18 ; 0.18	0.01 ± 0.16 ; 0.16	-0.09 ± 0.14 ; 0.14
Mn-54	-0.0 ± 0.7 ; 0.7	-0.2 ± 2.1 ; 2.1	-1.3 ± 2.2 ; 2.2	-2.6 ± 3.6 ; 3.6
Fe-59	-2.5 ± 1.9 ; 2.0	2.7 ± 4.5 ; 4.5	0.4 ± 3.8 ; 3.8	1.2 ± 7.4 ; 7.4
Co-58	-0.7 ± 0.7 ; 0.7	0.0 ± 2.5 ; 2.5	-0.4 ± 1.8 ; 1.8	1.0 ± 3.0 ; 3.0
Co-60	-0.2 ± 0.9 ; 0.9	-1.2 ± 2.5 ; 2.6	-0.4 ± 2.1 ; 2.1	-0.3 ± 5.0 ; 5.0
Zn-65	-1.8 ± 2.1 ; 2.1	-1.7 ± 6.3 ; 6.3	-6.9 ± 5.4 ; 5.5	2.8 ± 6.7 ; 6.8
Zr/Nb-95	0.2 ± 0.8 ; 0.8	1.2 ± 2.3 ; 2.4	-2.3 ± 2.2 ; 2.2	0.3 ± 3.6 ; 3.6
Cs-134	-0.4 ± 0.8 ; 0.8	0.0 ± 2.3 ; 2.3	0.2 ± 2.4 ; 2.4	0.6 ± 3.7 ; 3.7
Cs-137	0.4 ± 0.8 ; 0.8	2.5 ± 2.6 ; 2.6	-2.6 ± 2.3 ; 2.3	-0.1 ± 3.8 ; 3.8
Ba/La-140	1.6 ± 0.7 ; 0.8	0.5 ± 2.5 ; 2.5	-0.9 ± 2.1 ; 2.1	-0.8 ± 2.9 ; 2.9

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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-18 (C) Biros Farm

Date Collected	10-17-02	10-31-02	11-14-02	12-05-02
Lab Code	BDMI-7004	BDMI-7454	BDMI-7810	BDMI-8142
I-131	-0.02 ± 0.15 ; 0.15	-0.06 ± 0.16 ; 0.16	-0.04 ± 0.16 ; 0.16	-0.07 ± 0.15 ; 0.15
Mn-54	0.9 ± 2.4 ; 2.4	2.0 ± 2.0 ; 2.1	1.1 ± 1.9 ; 1.9	1.4 ± 1.9 ; 1.9
Fe-59	0.5 ± 4.6 ; 4.6	2.8 ± 4.7 ; 4.8	-3.8 ± 3.9 ; 3.9	0.8 ± 4.6 ; 4.6
Co-58	-1.1 ± 2.4 ; 2.4	0.9 ± 2.2 ; 2.2	0.4 ± 1.5 ; 1.5	0.9 ± 1.8 ; 1.8
Co-60	-2.0 ± 2.7 ; 2.7	0.5 ± 2.3 ; 2.3	0.8 ± 2.2 ; 2.2	-0.4 ± 2.6 ; 2.6
Zn-65	-10.8 ± 6.7 ; 6.8	1.1 ± 5.9 ; 5.9	-11.3 ± 5.4 ; 5.6	-4.9 ± 5.9 ; 5.9
Zr/Nb-95	-3.1 ± 2.7 ; 2.7	1.2 ± 1.9 ; 1.9	-0.9 ± 2.1 ; 2.1	-0.7 ± 2.1 ; 2.1
Cs-134	-2.4 ± 2.6 ; 2.6	2.0 ± 2.3 ; 2.3	-0.8 ± 2.0 ; 2.0	1.1 ± 2.4 ; 2.4
Cs-137	-0.7 ± 2.7 ; 2.7	0.3 ± 2.4 ; 2.4	-3.1 ± 1.9 ; 2.0	-0.1 ± 2.2 ; 2.2
Ba/La-140	0.9 ± 2.2 ; 2.2	-2.8 ± 2.5 ; 2.5	2.5 ± 1.9 ; 1.9	-0.9 ± 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-25 (C) Kankakee River, Upstream			
Date Collected	05-02-02	05-02-02	10-01-02	10-01-02
Lab Code	BDF-2888	BDF-2889	BDF-6427	BDF-6428
Type	Smallmouth Bass	Golden Redhorse	Smallmouth Bass	Golden Redhorse
Mn-54	0.7 ± 1.1 ; 1.1	0.3 ± 0.7 ; 0.7	0.5 ± 0.5 ; 0.5	0.1 ± 0.5 ; 0.5
Fe-59	1.0 ± 2.4 ; 2.4	-0.1 ± 1.5 ; 1.5	-0.4 ± 1.0 ; 1.0	-0.4 ± 1.0 ; 1.0
Co-58	1.6 ± 1.1 ; 1.1	-0.2 ± 0.5 ; 0.5	0.2 ± 0.5 ; 0.5	0.2 ± 0.4 ; 0.4
Co-60	0.1 ± 1.1 ; 1.1	0.4 ± 0.9 ; 0.9	0.1 ± 0.6 ; 0.6	0.1 ± 0.5 ; 0.5
Zn-65	3.2 ± 2.8 ; 2.8	-0.6 ± 1.7 ; 1.7	-0.3 ± 1.2 ; 1.2	-1.6 ± 1.3 ; 1.3
Zr/Nb-95	0.4 ± 1.1 ; 1.1	0.8 ± 0.6 ; 0.6	-0.9 ± 0.5 ; 0.6	0.2 ± 0.5 ; 0.5
Cs-134	0.6 ± 1.3 ; 1.3	0.2 ± 0.6 ; 0.6	0.1 ± 0.5 ; 0.5	0.0 ± 0.5 ; 0.5
Cs-137	-0.5 ± 1.2 ; 1.2	0.1 ± 0.7 ; 0.7	-0.3 ± 0.5 ; 0.5	0.2 ± 0.5 ; 0.5
Ba/La-140	-0.7 ± 1.4 ; 1.4	0.7 ± 0.8 ; 0.8	0.2 ± 0.4 ; 0.4	-0.7 ± 0.4 ; 0.5

BRAIDWOOD

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	05-02-02	05-02-02	10-01-02	10-01-02
Lab Code	BDF-2890	BDF-2891	BDF-6429	BDF-6430
Type	Channel Catfish	Carp	Smallmouth Bass	Golden Redhorse
Mn-54	-0.6 ± 0.9 ; 0.9	0.6 ± 0.7 ; 0.7	-0.1 ± 0.7 ; 0.7	0.2 ± 1.0 ; 1.0
Fe-59	1.6 ± 1.7 ; 1.7	-4.4 ± 2.1 ; 2.1	2.2 ± 1.4 ; 1.4	1.4 ± 2.4 ; 2.4
Co-58	-0.2 ± 0.8 ; 0.8	-0.4 ± 0.8 ; 0.8	-0.5 ± 0.8 ; 0.8	-0.8 ± 0.8 ; 0.8
Co-60	0.8 ± 0.9 ; 0.9	-0.4 ± 1.0 ; 1.0	-0.1 ± 1.1 ; 1.1	-0.3 ± 1.2 ; 1.2
Zn-65	0.2 ± 1.8 ; 1.8	-1.0 ± 2.1 ; 2.1	-0.9 ± 1.9 ; 1.9	-2.2 ± 2.5 ; 2.5
Zr/Nb-95	0.5 ± 0.6 ; 0.7	-0.6 ± 1.4 ; 1.4	-0.1 ± 0.8 ; 0.8	-1.4 ± 1.0 ; 1.0
Cs-134	0.4 ± 0.8 ; 0.8	-0.2 ± 0.9 ; 0.9	0.4 ± 0.7 ; 0.7	0.1 ± 1.1 ; 1.1
Cs-137	0.1 ± 0.8 ; 0.8	-0.8 ± 0.9 ; 0.9	0.2 ± 0.8 ; 0.8	0.2 ± 0.9 ; 0.9
Ba/La-140	-3.3 ± 0.8 ; 0.9	1.6 ± 0.4 ; 0.5	-2.1 ± 1.1 ; 1.1	-1.5 ± 1.3 ; 1.3

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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	05-09-02	10-03-02
Lab Code	BDBS-3122	BDBS-6534
Mn-54	-0.3 ± 1.5 ; 1.5	-0.2 ± 0.7 ; 0.7
Fe-59	4.2 ± 2.4 ; 2.5	-1.2 ± 1.4 ; 1.4
Co-58	0.8 ± 1.1 ; 1.1	0.1 ± 0.6 ; 0.6
Co-60	-0.6 ± 1.7 ; 1.7	0.1 ± 0.8 ; 0.8
Zn-65	2.0 ± 3.3 ; 3.3	-2.3 ± 1.8 ; 1.8
Zr/Nb-95	0.0 ± 1.4 ; 1.4	-0.2 ± 0.7 ; 0.7
Cs-134	3.5 ± 1.7 ; 1.8	0.9 ± 0.8 ; 0.8
Cs-137	14.5 ± 2.9 ; 3.5	8.2 ± 1.8 ; 2.1
Ba/La-140	-0.8 ± 1.6 ; 1.6	-2.9 ± 0.8 ; 0.9
	BD-41 Kankakee River, Downstream	
Date Collected	05-09-02	10-03-02
Lab Code	BDBS-3123	BDBS-6535
Mn-54	-0.0 ± 0.7 ; 0.7	1.0 ± 0.6 ; 0.6
Fe-59	2.1 ± 1.2 ; 1.3	1.8 ± 1.3 ; 1.3
Co-58	0.1 ± 0.6 ; 0.6	1.3 ± 0.6 ; 0.6
Co-60	1.1 ± 0.8 ; 0.8	7.8 ± 1.3 ; 1.7
Zn-65	-0.7 ± 1.6 ; 1.6	-1.7 ± 1.5 ; 1.5
Zr/Nb-95	-1.0 ± 0.7 ; 0.7	-0.8 ± 0.6 ; 0.6
Cs-134	1.1 ± 0.7 ; 0.7	1.3 ± 0.7 ; 0.7
Cs-137	0.5 ± 0.7 ; 0.7	3.8 ± 1.3 ; 1.4
Ba/La-140	-0.4 ± 0.5 ; 0.5	-0.3 ± 0.5 ; 0.5

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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	09-14-02	09-14-02
Lab Code	BDVE-5971	BDVE-5972
Type	Beets	Beet Greens
Mn-54	-0.1 ± 0.3 ; 0.3	-1.3 ± 1.1 ; 1.1
Fe-59	-0.2 ± 0.9 ; 1.0	-1.0 ± 2.5 ; 2.5
Co-58	0.1 ± 0.5 ; 0.5	-0.6 ± 1.0 ; 1.0
Co-60	-0.2 ± 0.6 ; 0.6	-0.2 ± 1.5 ; 1.5
Zn-65	1.4 ± 1.0 ; 1.0	-3.9 ± 3.5 ; 3.6
Zr/Nb-95	-0.2 ± 0.4 ; 0.4	0.4 ± 1.1 ; 1.1
I-131	0.3 ± 0.5 ; 0.5	-0.1 ± 0.9 ; 0.9
Cs-134	0.2 ± 0.4 ; 0.4	-0.6 ± 0.9 ; 0.9
Cs-137	0.2 ± 0.5 ; 0.5	0.2 ± 1.1 ; 1.1
Ba/La-140	-0.3 ± 0.3 ; 0.3	-0.4 ± 1.1 ; 1.1
	BD-Quad 1 Clark Farm	
Date Collected	09-14-02	09-14-02
Lab Code	BDVE-5965	BDVE-5966
Type	Cabbage	Onions
Mn-54	-0.4 ± 0.7 ; 0.7	-0.1 ± 0.5 ; 0.5
Fe-59	0.9 ± 1.3 ; 1.4	-1.4 ± 1.0 ; 1.0
Co-58	-0.8 ± 0.8 ; 0.8	0.3 ± 0.4 ; 0.4
Co-60	-0.7 ± 0.7 ; 0.7	0.8 ± 0.6 ; 0.6
Zn-65	-2.0 ± 1.6 ; 1.7	-1.4 ± 1.3 ; 1.3
Zr/Nb-95	-1.1 ± 1.3 ; 1.3	0.1 ± 0.5 ; 0.5
I-131	-0.3 ± 0.7 ; 0.7	-0.1 ± 0.5 ; 0.5
Cs-134	-0.4 ± 0.8 ; 0.8	0.2 ± 0.5 ; 0.5
Cs-137	0.5 ± 0.7 ; 0.7	-0.4 ± 0.6 ; 0.6
Ba/La-140	0.0 ± 1.0 ; 1.0	-0.2 ± 0.5 ; 0.5

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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-Quad 2 W.F. Soltwisch	
Date Collected	09-19-02	09-19-02
Lab Code	BDVE-6161	BDVE-6162
Type	Cabbage	Potatoes
Mn-54	0.1 ± 0.8 ; 0.8	-0.3 ± 0.6 ; 0.6
Fe-59	-0.2 ± 1.1 ; 1.1	0.7 ± 1.4 ; 1.4
Co-58	-0.5 ± 0.7 ; 0.7	-0.6 ± 0.5 ; 0.5
Co-60	0.3 ± 0.7 ; 0.7	-0.1 ± 0.5 ; 0.5
Zn-65	0.2 ± 1.3 ; 1.3	0.2 ± 1.7 ; 1.7
Zr/Nb-95	-0.9 ± 1.1 ; 1.1	-0.1 ± 0.6 ; 0.6
I-131	0.5 ± 0.7 ; 0.7	0.1 ± 0.7 ; 0.7
Cs-134	-0.4 ± 0.7 ; 0.7	-0.2 ± 0.7 ; 0.7
Cs-137	-0.1 ± 0.8 ; 0.8	0.3 ± 0.6 ; 0.6
Ba/La-140	-0.9 ± 0.6 ; 0.6	-0.6 ± 0.6 ; 0.6
	BD-Quad 3 Terri Schultz	
Date Collected	09-14-02	09-14-02
Lab Code	BDVE-5967	BDVE-5968
Type	Beets	Beet Greens
Mn-54	-0.0 ± 0.4 ; 0.4	0.4 ± 0.6 ; 0.6
Fe-59	-0.7 ± 1.2 ; 1.2	0.5 ± 1.6 ; 1.6
Co-58	0.0 ± 0.5 ; 0.5	0.3 ± 0.6 ; 0.6
Co-60	0.0 ± 0.7 ; 0.7	0.1 ± 0.7 ; 0.7
Zn-65	-0.8 ± 1.4 ; 1.4	0.3 ± 1.9 ; 1.9
Zr/Nb-95	-0.5 ± 0.5 ; 0.5	0.2 ± 0.6 ; 0.6
I-131	0.2 ± 0.5 ; 0.5	-0.2 ± 0.6 ; 0.6
Cs-134	0.3 ± 0.6 ; 0.6	0.2 ± 0.7 ; 0.7
Cs-137	0.2 ± 0.5 ; 0.5	1.4 ± 0.8 ; 0.8
Ba/La-140	0.3 ± 0.4 ; 0.4	-0.2 ± 0.4 ; 0.4

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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 4 Bruce Sinkular

Date Collected	09-14-02	09-14-02
Lab Code	BDVE-5969	BDVE-5970
Type	Cabbage	Beets
Mn-54	0.1 ± 0.7 ; 0.7	-0.1 ± 0.6 ; 0.6
Fe-59	1.1 ± 1.4 ; 1.4	-0.4 ± 1.0 ; 1.0
Co-58	0.2 ± 0.6 ; 0.7	-0.2 ± 0.6 ; 0.6
Co-60	-0.0 ± 0.8 ; 0.8	0.1 ± 0.6 ; 0.6
Zn-65	0.8 ± 1.4 ; 1.5	0.2 ± 1.4 ; 1.4
Zr/Nb-95	-0.2 ± 0.7 ; 0.7	-0.6 ± 0.5 ; 0.5
I-131	-0.4 ± 0.6 ; 0.6	-0.6 ± 0.5 ; 0.5
Cs-134	0.1 ± 0.5 ; 0.5	0.2 ± 0.6 ; 0.6
Cs-137	-0.2 ± 0.6 ; 0.6	0.6 ± 0.5 ; 0.5
Ba/La-140	0.2 ± 0.2 ; 0.2	0.6 ± 0.6 ; 0.6

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

2002 Collection Period	January	February	March
Lab Code	BDSW-616	BDSW-1381	BDSW-2230
Gross Beta	3.4 ± 1.0 ; 1.1	5.6 ± 1.8 ; 2.0	2.9 ± 1.0 ; 1.1
Mn-54	1.4 ± 1.6 ; 1.6	-0.3 ± 1.8 ; 1.8	0.2 ± 2.0 ; 2.0
Fe-59	-0.3 ± 3.4 ; 3.4	1.5 ± 3.8 ; 3.8	-2.3 ± 3.8 ; 3.8
Co-58	1.1 ± 1.2 ; 1.2	-2.1 ± 2.2 ; 2.3	2.9 ± 2.0 ; 2.0
Co-60	-0.9 ± 1.7 ; 1.7	0.6 ± 1.9 ; 1.9	1.0 ± 3.6 ; 3.6
Zn-65	-2.2 ± 3.5 ; 3.6	0.2 ± 4.2 ; 4.2	0.1 ± 4.0 ; 4.0
Zr/Nb-95	0.8 ± 1.7 ; 1.7	-1.9 ± 1.8 ; 1.8	1.1 ± 2.2 ; 2.2
Cs-134	0.0 ± 1.8 ; 1.8	1.6 ± 2.0 ; 2.0	1.3 ± 2.4 ; 2.4
Cs-137	-1.0 ± 1.7 ; 1.7	-1.9 ± 2.2 ; 2.2	0.1 ± 2.2 ; 2.2
Ba/La-140	-3.8 ± 1.5 ; 1.6	1.1 ± 2.1 ; 2.1	7.0 ± 2.8 ; 2.9

2002 Collection Period	April	May	June
Lab Code	BDSW-2753	BDSW-3552	BDSW-4282
Gross Beta	2.1 ± 1.1 ; 1.1	3.1 ± 0.9 ; 1.0	1.7 ± 1.2 ; 1.3
Mn-54	-0.5 ± 1.2 ; 1.2	0.9 ± 1.7 ; 1.7	0.2 ± 1.0 ; 1.0
Fe-59	-0.6 ± 2.0 ; 2.0	-2.6 ± 3.4 ; 3.4	-0.1 ± 1.8 ; 1.8
Co-58	0.8 ± 1.1 ; 1.1	-0.4 ± 1.8 ; 1.8	1.0 ± 1.0 ; 1.0
Co-60	0.1 ± 1.1 ; 1.1	-0.9 ± 1.8 ; 1.8	1.5 ± 1.0 ; 1.1
Zn-65	-1.3 ± 2.6 ; 2.6	-0.6 ± 4.2 ; 4.2	-9.2 ± 2.9 ; 3.2
Zr/Nb-95	0.0 ± 1.3 ; 1.3	0.3 ± 1.8 ; 1.8	-4.6 ± 1.3 ; 1.4
Cs-134	-0.3 ± 1.4 ; 1.4	0.4 ± 2.0 ; 2.0	0.2 ± 1.2 ; 1.2
Cs-137	-0.7 ± 1.3 ; 1.3	1.0 ± 1.9 ; 1.9	-0.9 ± 1.1 ; 1.1
Ba/La-140	-0.7 ± 1.5 ; 1.5	-0.9 ± 2.0 ; 2.1	2.1 ± 1.3 ; 1.3

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

2002 Collection Period	July	August	September
Lab Code	BDSW-5453	BDSW-6000	BDSW-6707
Gross Beta	3.2 ± 1.5 ; 1.6	4.5 ± 1.6 ; 1.8	5.0 ± 1.2 ; 1.5
Mn-54	-0.2 ± 1.2 ; 1.2	1.4 ± 3.8 ; 3.8	2.0 ± 3.1 ; 3.1
Fe-59	-1.4 ± 2.8 ; 2.8	-0.8 ± 5.9 ; 5.9	-2.9 ± 5.2 ; 5.2
Co-58	0.8 ± 1.5 ; 1.5	0.3 ± 2.6 ; 2.6	1.5 ± 3.6 ; 3.6
Co-60	0.4 ± 1.7 ; 1.7	0.4 ± 3.8 ; 3.8	-0.2 ± 2.6 ; 2.6
Zn-65	-3.7 ± 3.7 ; 3.7	0.4 ± 5.6 ; 5.6	2.9 ± 7.0 ; 7.0
Zr/Nb-95	-5.9 ± 3.2 ; 3.3	2.5 ± 3.0 ; 3.0	-1.5 ± 3.3 ; 3.3
Cs-134	-1.8 ± 1.7 ; 1.7	1.5 ± 3.1 ; 3.1	0.4 ± 4.1 ; 4.1
Cs-137	0.3 ± 1.5 ; 1.5	1.4 ± 3.4 ; 3.4	4.4 ± 3.4 ; 3.4
Ba/La-140	-3.9 ± 1.4 ; 1.5	2.6 ± 2.6 ; 2.7	-5.1 ± 3.7 ; 3.8

2002 Collection Period	October	November	December
Lab Code	BDSW-7641	BDSW-8168	BDSW-8596
Gross Beta	2.1 ± 1.0 ; 1.1	4.4 ± 1.1 ; 1.3	3.0 ± 1.1 ; 1.2
Mn-54	1.9 ± 3.6 ; 3.6	-3.9 ± 3.0 ; 3.0	-1.5 ± 2.9 ; 2.9
Fe-59	6.3 ± 5.7 ; 5.8	1.4 ± 5.1 ; 5.1	2.6 ± 5.4 ; 5.4
Co-58	-0.3 ± 3.6 ; 3.6	-2.5 ± 3.2 ; 3.2	-1.0 ± 3.0 ; 3.0
Co-60	1.3 ± 4.4 ; 4.4	0.4 ± 3.9 ; 3.9	-0.6 ± 3.5 ; 3.5
Zn-65	-1.5 ± 6.9 ; 6.9	-6.5 ± 6.4 ; 6.5	-0.6 ± 4.4 ; 4.4
Zr/Nb-95	-5.3 ± 3.2 ; 3.3	-2.5 ± 2.7 ; 2.7	-0.8 ± 2.9 ; 2.9
Cs-134	-1.1 ± 3.8 ; 3.8	-2.6 ± 3.2 ; 3.2	3.7 ± 2.7 ; 2.8
Cs-137	1.6 ± 3.3 ; 3.3	-3.0 ± 3.3 ; 3.3	0.3 ± 3.3 ; 3.3
Ba/La-140	-12.4 ± 4.0 ; 4.4	1.6 ± 3.2 ; 3.2	3.4 ± 3.6 ; 3.6

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

2002 Collection Period	January	February	March
Lab Code	BDSW-617	BDSW-1382	BDSW-2231
Gross Beta	3.6 ± 1.0 ; 1.1	7.0 ± 1.4 ; 1.8	4.7 ± 1.3 ; 1.5
Mn-54	0.6 ± 1.8 ; 1.8	1.0 ± 1.9 ; 1.9	-0.2 ± 1.4 ; 1.4
Fe-59	-3.4 ± 3.4 ; 3.4	-1.0 ± 2.8 ; 2.8	2.5 ± 3.1 ; 3.1
Co-58	-0.4 ± 1.4 ; 1.4	-0.2 ± 1.6 ; 1.6	-0.7 ± 1.3 ; 1.3
Co-60	0.2 ± 1.7 ; 1.7	0.6 ± 1.3 ; 1.3	0.2 ± 1.7 ; 1.7
Zn-65	-0.6 ± 2.8 ; 2.8	-1.7 ± 3.0 ; 3.0	1.4 ± 3.0 ; 3.1
Zr/Nb-95	-4.0 ± 3.6 ; 3.7	1.0 ± 1.4 ; 1.4	-0.8 ± 1.7 ; 1.7
Cs-134	-0.3 ± 1.7 ; 1.7	0.8 ± 2.1 ; 2.1	1.2 ± 1.8 ; 1.8
Cs-137	1.3 ± 1.6 ; 1.6	0.0 ± 1.9 ; 1.9	-1.1 ± 1.6 ; 1.6
Ba/La-140	-5.3 ± 2.0 ; 2.2	-0.7 ± 2.3 ; 2.3	-2.2 ± 1.6 ; 1.7

2002 Collection Period	April	May	June
Lab Code	BDSW-2754	BDSW-3553	BDSW-4283
Gross Beta	2.7 ± 1.2 ; 1.2	6.1 ± 1.3 ; 1.6	6.2 ± 1.6 ; 1.9
Mn-54	0.4 ± 1.1 ; 1.1	0.4 ± 1.6 ; 1.6	0.2 ± 1.8 ; 1.8
Fe-59	-1.5 ± 2.0 ; 2.0	1.2 ± 3.3 ; 3.3	-2.3 ± 3.4 ; 3.4
Co-58	-1.2 ± 1.0 ; 1.1	-0.2 ± 1.8 ; 1.8	2.5 ± 1.6 ; 1.6
Co-60	0.2 ± 1.1 ; 1.1	-0.4 ± 1.8 ; 1.8	2.1 ± 1.7 ; 1.7
Zn-65	-0.6 ± 2.4 ; 2.4	-3.1 ± 2.9 ; 2.9	-1.4 ± 3.9 ; 3.9
Zr/Nb-95	0.6 ± 1.1 ; 1.1	-0.9 ± 1.8 ; 1.8	-5.1 ± 4.2 ; 4.3
Cs-134	-0.0 ± 1.2 ; 1.2	3.1 ± 2.1 ; 2.2	-0.8 ± 1.9 ; 1.9
Cs-137	0.1 ± 1.2 ; 1.2	0.6 ± 1.7 ; 1.7	0.5 ± 1.9 ; 1.9
Ba/La-140	-7.8 ± 1.4 ; 1.8	-4.6 ± 2.4 ; 2.5	0.6 ± 2.3 ; 2.3

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

2002 Collection Period	July	August	September
Lab Code	BDSW-5454	BDSW-6001	BDSW-6708
Gross Beta	4.3 ± 1.5 ; 1.6	4.2 ± 1.7 ; 1.8	3.7 ± 1.2 ; 1.4
Mn-54	-1.4 ± 1.2 ; 1.2	-0.4 ± 2.2 ; 2.2	-0.3 ± 3.3 ; 3.3
Fe-59	0.6 ± 2.4 ; 2.4	-2.6 ± 4.7 ; 4.7	0.3 ± 4.7 ; 4.7
Co-58	-1.1 ± 1.0 ; 1.0	0.7 ± 2.4 ; 2.4	-2.2 ± 2.7 ; 2.8
Co-60	0.6 ± 1.1 ; 1.1	-1.1 ± 2.5 ; 2.5	1.3 ± 2.7 ; 2.7
Zn-65	0.1 ± 2.6 ; 2.6	-2.3 ± 5.3 ; 5.3	1.2 ± 5.5 ; 5.5
Zr/Nb-95	-2.7 ± 1.2 ; 1.3	-0.1 ± 2.6 ; 2.6	-7.6 ± 3.3 ; 3.5
Cs-134	-0.0 ± 1.1 ; 1.1	2.6 ± 2.5 ; 2.5	-1.2 ± 2.7 ; 2.7
Cs-137	-0.2 ± 1.3 ; 1.3	-0.1 ± 2.7 ; 2.7	-1.4 ± 3.4 ; 3.4
Ba/La-140	-7.5 ± 1.6 ; 1.9	5.8 ± 2.5 ; 2.6	0.8 ± 2.3 ; 2.3

2002 Collection Period	October	November	December
Lab Code	BDSW-7642	BDSW-8169	BDSW-8597
Gross Beta	2.6 ± 1.1 ; 1.2	4.0 ± 1.0 ; 1.2	5.1 ± 1.2 ; 1.4
Mn-54	-0.1 ± 1.4 ; 1.4	0.1 ± 3.8 ; 3.8	0.5 ± 2.7 ; 2.7
Fe-59	0.4 ± 2.5 ; 2.5	-0.8 ± 4.3 ; 4.3	3.4 ± 4.6 ; 4.6
Co-58	-3.3 ± 2.0 ; 2.1	2.7 ± 2.7 ; 2.7	-1.8 ± 2.5 ; 2.5
Co-60	0.9 ± 2.1 ; 2.1	-1.1 ± 4.9 ; 4.9	1.2 ± 2.4 ; 2.4
Zn-65	-3.1 ± 5.1 ; 5.1	1.1 ± 7.8 ; 7.8	-1.3 ± 4.2 ; 4.2
Zr/Nb-95	-2.0 ± 2.1 ; 2.1	-1.7 ± 3.2 ; 3.2	0.2 ± 2.6 ; 2.6
Cs-134	-1.7 ± 2.3 ; 2.3	0.5 ± 4.1 ; 4.1	-0.9 ± 3.0 ; 3.1
Cs-137	1.3 ± 2.0 ; 2.0	-0.8 ± 3.4 ; 3.4	-2.0 ± 3.4 ; 3.4
Ba/La-140	0.8 ± 1.7 ; 1.7	-0.4 ± 4.2 ; 4.2	1.7 ± 3.2 ; 3.2

Table 7. Surface Water

Collection: Quarterly composites of weekly collections

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

Units: pCi/L

2002 Collection Period	Sample Description and Concentration Lab Code	Tritium
	BD-10 Kankakee River, Downtream	
1st Quarter	BDSW - 1961	-42 ± 62 ; 62
2nd Quarter	BDSW - 4286	54 ± 67 ; 68
3rd Quarter	BDSW - 6709	44 ± 92 ; 92
4th Quarter	BDSW - 8605	292 ± 92 ; 101
	BD-25 (C) Kankakee River, Upstream	
1st Quarter	BDSW - 1962	-23 ± 63 ; 63
2nd Quarter	BDSW - 4287	92 ± 69 ; 71
3rd Quarter	BDSW - 6710	-176 ± 81 ; 84
4th Quarter	BDSW - 8606	33 ± 85 ; 86

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	01-10-02	04-11-02	07-11-02	10-10-02
Lab Code	BDWW-198	BDWW-2261	BDWW-4607	BDWW-6780
H-3	27 ± 87 ; 87	26 ± 70 ; 70	76 ± 73 ; 74	-104 ± 61 ; 63
Mn-54	0.3 ± 3.3 ; 3.3	-0.4 ± 2.8 ; 2.8	-0.1 ± 1.2 ; 1.2	-1.9 ± 4.5 ; 4.5
Fe-59	-5.4 ± 5.8 ; 5.8	-6.0 ± 5.0 ; 5.0	-3.5 ± 2.2 ; 2.3	-2.5 ± 11.1 ; 11.1
Co-58	0.7 ± 3.4 ; 3.4	0.8 ± 2.5 ; 2.5	-1.3 ± 1.1 ; 1.2	-2.3 ± 3.7 ; 3.7
Co-60	3.3 ± 4.2 ; 4.2	1.3 ± 3.5 ; 3.5	1.3 ± 1.2 ; 1.3	1.8 ± 5.2 ; 5.2
Zn-65	-8.9 ± 7.9 ; 8.0	-6.0 ± 6.3 ; 6.4	-1.4 ± 2.5 ; 2.5	11.0 ± 12.1 ; 12.2
Zr/Nb-95	0.6 ± 3.4 ; 3.4	-1.5 ± 3.3 ; 3.3	-0.2 ± 1.1 ; 1.1	1.1 ± 4.7 ; 4.7
Cs-134	3.4 ± 3.6 ; 3.6	-1.9 ± 3.4 ; 3.4	0.5 ± 1.4 ; 1.4	0.4 ± 5.8 ; 5.8
Cs-137	-1.1 ± 3.4 ; 3.4	-0.6 ± 2.8 ; 2.8	0.1 ± 1.2 ; 1.2	-1.7 ± 5.3 ; 5.3
Ba/La-140	-2.5 ± 2.8 ; 2.8	-3.9 ± 4.2 ; 4.2	-9.1 ± 1.5 ; 2.0	7.0 ± 4.9 ; 5.0

BD-34 Gibson Well

Date Collected	01-10-02	04-11-02	07-11-02	10-10-02
Lab Code	BDWW-199,00	BDWW-2262	BDWW-4608	BDWW-6781
H-3	0 ± 60 ; 61	26 ± 70 ; 70	-89 ± 63 ; 65	-15 ± 67 ; 67
Mn-54	-0.0 ± 2.3 ; 2.3	0.9 ± 2.3 ; 2.3	0.2 ± 1.3 ; 1.3	1.1 ± 2.9 ; 2.9
Fe-59	-1.5 ± 3.6 ; 3.6	-2.9 ± 4.5 ; 4.5	0.3 ± 2.8 ; 2.8	-0.7 ± 7.0 ; 7.0
Co-58	0.5 ± 1.9 ; 1.9	-0.2 ± 2.7 ; 2.7	1.6 ± 1.4 ; 1.4	-0.3 ± 3.0 ; 3.0
Co-60	-0.5 ± 2.4 ; 2.4	0.3 ± 3.1 ; 3.1	0.2 ± 1.7 ; 1.7	2.9 ± 3.8 ; 3.8
Zn-65	1.0 ± 3.7 ; 3.7	-5.3 ± 5.4 ; 5.4	1.3 ± 2.9 ; 2.9	-1.9 ± 7.1 ; 7.1
Zr/Nb-95	-1.8 ± 2.2 ; 2.2	-0.7 ± 2.8 ; 2.8	1.2 ± 1.4 ; 1.4	-3.4 ± 2.8 ; 2.8
Cs-134	-1.0 ± 2.2 ; 2.2	1.7 ± 3.3 ; 3.3	-0.9 ± 1.6 ; 1.6	-2.7 ± 3.5 ; 3.6
Cs-137	-0.2 ± 2.4 ; 2.4	1.1 ± 2.8 ; 2.8	0.3 ± 1.6 ; 1.6	0.6 ± 2.8 ; 2.8
Ba/La-140	-2.6 ± 2.9 ; 2.9	2.2 ± 3.0 ; 3.0	-6.5 ± 1.7 ; 1.9	2.8 ± 4.9 ; 4.9

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	01-10-02	04-11-02	07-11-02	10-10-02
Lab Code	BDWW-201	BDWW-2263	BDWW-4609	BDWW-6782
H-3	22 ± 65 ; 65	-84 ± 65 ; 66	-73 ± 64 ; 65	-40 ± 65 ; 66
Mn-54	1.1 ± 3.0 ; 3.0	-0.8 ± 1.6 ; 1.6	0.3 ± 0.6 ; 0.6	-0.1 ± 1.7 ; 1.7
Fe-59	2.7 ± 5.6 ; 5.6	-0.6 ± 3.9 ; 3.9	1.8 ± 1.1 ; 1.1	-2.2 ± 3.1 ; 3.1
Co-58	-0.2 ± 3.1 ; 3.1	0.7 ± 1.7 ; 1.7	0.5 ± 0.6 ; 0.6	0.5 ± 1.3 ; 1.3
Co-60	-3.7 ± 4.3 ; 4.3	-1.6 ± 1.9 ; 1.9	-0.1 ± 0.7 ; 0.7	0.2 ± 1.9 ; 1.9
Zn-65	1.5 ± 6.5 ; 6.5	-1.0 ± 3.4 ; 3.4	-1.0 ± 1.3 ; 1.3	2.4 ± 4.1 ; 4.2
Zr/Nb-95	-0.8 ± 3.2 ; 3.2	-2.6 ± 1.7 ; 1.7	0.7 ± 0.6 ; 0.6	-2.1 ± 2.3 ; 2.3
Cs-134	-1.8 ± 3.5 ; 3.5	-0.3 ± 1.8 ; 1.8	0.7 ± 0.7 ; 0.7	1.6 ± 1.7 ; 1.7
Cs-137	0.4 ± 3.7 ; 3.7	-0.9 ± 1.7 ; 1.7	0.4 ± 0.7 ; 0.7	0.8 ± 1.7 ; 1.7
Ba/La-140	8.7 ± 4.4 ; 4.5	-3.6 ± 1.8 ; 1.9	-4.1 ± 0.8 ; 1.0	-7.9 ± 2.2 ; 2.4

BD-36 Hutton Well

Date Collected	01-10-02	04-11-02	07-11-02	10-10-02
Lab Code	BDWW-202	BDWW-2264	BDWW-4610	BDWW-6783
H-3	315 ± 80 ; 90	176 ± 79 ; 82	229 ± 80 ; 86	371 ± 86 ; 100
Mn-54	-0.7 ± 2.2 ; 2.2	0.7 ± 1.5 ; 1.5	2.9 ± 1.8 ; 1.9	0.4 ± 2.4 ; 2.4
Fe-59	-1.4 ± 4.2 ; 4.2	0.4 ± 2.3 ; 2.3	0.3 ± 3.1 ; 3.1	3.1 ± 5.8 ; 5.8
Co-58	-1.5 ± 2.7 ; 2.7	1.8 ± 1.5 ; 1.6	0.2 ± 1.9 ; 1.9	1.9 ± 2.8 ; 2.9
Co-60	0.2 ± 3.5 ; 3.5	0.5 ± 1.6 ; 1.6	-0.2 ± 1.8 ; 1.8	-0.5 ± 3.6 ; 3.6
Zn-65	-2.3 ± 5.0 ; 5.0	1.4 ± 2.8 ; 2.8	-1.2 ± 4.3 ; 4.3	1.9 ± 6.3 ; 6.3
Zr/Nb-95	1.1 ± 2.9 ; 2.9	-0.1 ± 1.8 ; 1.8	0.3 ± 1.8 ; 1.8	-0.5 ± 3.3 ; 3.3
Cs-134	0.2 ± 3.0 ; 3.0	1.0 ± 1.7 ; 1.7	0.2 ± 1.8 ; 1.8	-1.3 ± 2.9 ; 2.9
Cs-137	-0.1 ± 3.3 ; 3.3	0.6 ± 1.9 ; 1.9	0.7 ± 1.8 ; 1.8	-0.1 ± 3.5 ; 3.5
Ba/La-140	-2.1 ± 3.8 ; 3.8	-3.0 ± 2.3 ; 2.3	0.8 ± 1.6 ; 1.6	4.1 ± 4.2 ; 4.2

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	01-10-02	04-11-02	07-11-02	10-10-02
Lab Code	BDWW-203	BDWW-2265,6	BDWW-4611,2	BDWW-6784
H-3	16± 65 ;65	-114± 45 ;46	1± 46 ;47	6± 68 ;68
Mn-54	0.4 ± 1.8 ; 1.8	0.1 ± 2.4 ; 2.4	0.5 ± 1.0 ; 1.0	0.7 ± 2.1 ; 2.1
Fe-59	-1.1 ± 2.6 ; 2.6	-5.9 ± 3.8 ; 3.9	0.4 ± 2.4 ; 2.4	-0.8 ± 3.9 ; 3.9
Co-58	-0.7 ± 1.7 ; 1.7	0.7 ± 2.0 ; 2.0	0.9 ± 0.9 ; 0.9	1.2 ± 2.1 ; 2.1
Co-60	-0.3 ± 1.9 ; 1.9	1.7 ± 1.9 ; 2.0	-0.2 ± 1.1 ; 1.1	0.3 ± 1.2 ; 1.2
Zn-65	-4.5 ± 4.7 ; 4.8	0.2 ± 4.9 ; 4.9	-0.4 ± 2.4 ; 2.4	-0.7 ± 5.3 ; 5.3
Zr/Nb-95	-0.0 ± 1.9 ; 1.9	-0.7 ± 2.2 ; 2.2	1.2 ± 0.9 ; 0.9	-5.6 ± 2.5 ; 2.6
Cs-134	0.4 ± 1.8 ; 1.8	1.6 ± 2.8 ; 2.8	-0.5 ± 1.2 ; 1.2	-0.1 ± 2.4 ; 2.4
Cs-137	0.1 ± 1.8 ; 1.8	-0.6 ± 2.1 ; 2.1	-1.4 ± 1.2 ; 1.2	0.7 ± 2.2 ; 2.2
Ba/La-140	-0.5 ± 2.2 ; 2.2	-5.1 ± 2.7 ; 2.8	-2.4 ± 1.4 ; 1.4	-11.2 ± 3.3 ; 3.7

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

2002 Collection Period	January	February	March
Lab Code	BDPW-618	BDPW-1383	BDPW-1960
Gross Beta	2.6 ± 1.0 ; 1.1	3.4 ± 1.1 ; 1.2	4.9 ± 1.1 ; 1.3
H-3	101 ± 87 ; 88	48 ± 66 ; 66	219 ± 89 ; 94
Mn-54	0.3 ± 1.7 ; 1.7	3.7 ± 3.0 ; 3.1	1.8 ± 1.3 ; 1.3
Fe-59	-4.9 ± 3.9 ; 4.0	-3.6 ± 4.1 ; 4.1	-2.0 ± 2.3 ; 2.3
Co-58	-1.1 ± 1.5 ; 1.5	1.2 ± 2.7 ; 2.7	-2.2 ± 1.4 ; 1.4
Co-60	0.3 ± 1.3 ; 1.3	-0.2 ± 3.4 ; 3.4	-0.4 ± 1.2 ; 1.2
Zn-65	4.8 ± 3.7 ; 3.8	2.3 ± 6.3 ; 6.3	-4.3 ± 3.4 ; 3.4
Zr/Nb-95	0.5 ± 2.1 ; 2.1	0.3 ± 3.1 ; 3.1	-1.1 ± 1.3 ; 1.3
Cs-134	-0.3 ± 1.9 ; 1.9	-0.1 ± 3.2 ; 3.2	-0.6 ± 1.6 ; 1.6
Cs-137	-0.7 ± 2.0 ; 2.0	0.3 ± 2.5 ; 2.5	-0.2 ± 1.4 ; 1.4
Ba/La-140	-2.7 ± 2.4 ; 2.4	4.9 ± 3.1 ; 3.2	-1.1 ± 1.7 ; 1.7

2002 Collection Period	April	May	June
Lab Code	BDPW-2755	BDPW-3554	BDPW-4284,5
Gross Beta	2.4 ± 1.0 ; 1.1	3.1 ± 1.0 ; 1.1	2.4 ± 0.6 ; 0.7
H-3	431 ± 88 ; 106	69 ± 82 ; 83	323 ± 60 ; 67
Mn-54	1.1 ± 1.6 ; 1.6	-0.8 ± 1.6 ; 1.6	0.0 ± 1.6 ; 1.6
Fe-59	-3.0 ± 3.2 ; 3.3	-0.2 ± 2.8 ; 2.8	-4.7 ± 3.8 ; 3.9
Co-58	-0.2 ± 1.6 ; 1.6	-0.6 ± 1.5 ; 1.5	-0.6 ± 1.7 ; 1.7
Co-60	-0.7 ± 1.8 ; 1.8	0.9 ± 1.5 ; 1.5	1.0 ± 1.6 ; 1.6
Zn-65	1.1 ± 3.1 ; 3.1	0.6 ± 3.2 ; 3.2	-2.9 ± 3.6 ; 3.6
Zr/Nb-95	-0.8 ± 1.5 ; 1.5	-1.8 ± 1.7 ; 1.7	0.4 ± 1.8 ; 1.8
Cs-134	0.4 ± 1.6 ; 1.6	1.7 ± 1.7 ; 1.8	-1.3 ± 2.0 ; 2.0
Cs-137	0.5 ± 1.8 ; 1.8	-0.3 ± 1.8 ; 1.8	0.5 ± 2.1 ; 2.1
Ba/La-140	0.7 ± 1.9 ; 1.9	-5.3 ± 2.0 ; 2.1	-4.3 ± 1.9 ; 2.0

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

2002 Collection Period	July	August	September
Lab Code	BDPW-5244	BDPW-5671	BDPW-6711
Gross Beta	2.1 ± 1.2 ; 1.3	3.6 ± 1.6 ; 1.7	2.4 ± 1.0 ; 1.1
H-3	121 ± 75 ; 77	1,016 ± 108 ; 176	3,350 ± 175 ; 488
Mn-54	0.3 ± 1.5 ; 1.5	-1.4 ± 2.5 ; 2.5	1.2 ± 4.7 ; 4.7
Fe-59	-2.3 ± 3.0 ; 3.0	2.2 ± 5.4 ; 5.4	0.7 ± 10.2 ; 10.2
Co-58	-0.3 ± 1.6 ; 1.6	-1.6 ± 2.1 ; 2.1	-2.6 ± 4.1 ; 4.1
Co-60	0.4 ± 1.5 ; 1.5	0.1 ± 2.7 ; 2.7	0.4 ± 5.0 ; 5.0
Zn-65	-3.1 ± 3.3 ; 3.3	1.3 ± 3.7 ; 3.7	3.2 ± 10.4 ; 10.4
Zr/Nb-95	-0.2 ± 2.0 ; 2.0	-0.7 ± 2.2 ; 2.2	-1.7 ± 5.4 ; 5.4
Cs-134	0.6 ± 2.0 ; 2.0	-1.0 ± 2.3 ; 2.3	0.2 ± 5.3 ; 5.3
Cs-137	0.1 ± 2.3 ; 2.3	0.5 ± 2.5 ; 2.5	-1.2 ± 5.4 ; 5.4
Ba/La-140	-6.1 ± 2.0 ; 2.2	1.3 ± 3.5 ; 3.5	-6.6 ± 7.1 ; 7.2

2002 Collection Period	October	November	December
Lab Code	BDPW-7511	BDPW-8140	BDPW-8595
Gross Beta	3.2 ± 1.2 ; 1.3	3.0 ± 1.0 ; 1.1	3.2 ± 1.1 ; 1.2
H-3	1,835 ± 151 ; 292	2,630 ± 164 ; 393	3,585 ± 186 ; 522
Mn-54	-0.9 ± 1.8 ; 1.8	1.5 ± 2.9 ; 2.9	0.7 ± 1.5 ; 1.5
Fe-59	4.4 ± 3.0 ; 3.1	-2.6 ± 7.0 ; 7.0	1.3 ± 3.5 ; 3.5
Co-58	-0.2 ± 1.3 ; 1.3	1.3 ± 3.1 ; 3.1	0.3 ± 1.6 ; 1.6
Co-60	1.2 ± 2.0 ; 2.0	1.9 ± 3.8 ; 3.8	0.8 ± 1.5 ; 1.5
Zn-65	-1.5 ± 4.3 ; 4.3	2.1 ± 7.6 ; 7.6	1.3 ± 4.5 ; 4.5
Zr/Nb-95	-2.5 ± 2.1 ; 2.1	0.7 ± 2.5 ; 2.5	0.2 ± 1.8 ; 1.8
Cs-134	0.1 ± 2.3 ; 2.3	2.5 ± 3.7 ; 3.7	-0.2 ± 2.1 ; 2.1
Cs-137	0.4 ± 2.2 ; 2.2	0.0 ± 3.1 ; 3.1	-0.7 ± 2.1 ; 2.1
Ba/La-140	-2.4 ± 2.1 ; 2.1	1.8 ± 3.5 ; 3.5	-0.7 ± 1.9 ; 1.9

BRAIDWOOD

MILCH ANIMALS, NEAREST RESIDENCES, AND

NEAREST LIVESTOCK CENSUS

BRAIDWOOD

MILCH ANIMALS CENSUS, 2002

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 27, 2002

BRAIDWOOD

NEAREST LIVESTOCK CENSUS, 2002

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 27, 2002

BRAIDWOOD

NEAREST RESIDENCE CENSUS, 2002

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 27, 2002

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 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
I. INDICATOR LOCATIONS					
a. Air Samplers					
BD-02-1	CUSTER PARK	22.0	19.0	17.0	20.0
BD-02-2	CUSTER PARK	23.0	20.0	18.0	21.0
BD-04-1	ESSEX	22.0	23.0	15.0	21.0
BD-04-2	ESSEX	22.0	18.0	18.0	21.0
BD-05-1	GARDNER	24.0	23.0	21.0	23.0
BD-05-2	GARDNER	24.0	21.0	20.0	23.0
BD-06-1	GODLEY	21.0	19.0	15.0	20.0
BD-06-2	GODLEY	21.0	19.0	16.0	21.0
BD-19-1	NEARSITE NW	24.0	18.0	16.0	21.0
BD-19-2	NEARSITE NW	23.0	20.0	19.0	20.0
BD-20-1	NEARSITE N	23.0	20.0	17.0	19.0
BD-20-2	NEARSITE N	21.0	20.0	19.0	21.0
BD-21-1	NEARSITE NE	22.0	21.0	16.0	21.0
BD-21-2	NEARSITE NE	22.0	19.0	16.0	21.0
	Air Sampler Mean ± S. D.	22.4 ±1.1	20.0 ±1.6	17.4 ±1.9	20.9 ±1.1
	Annual Air Sampler Mean ± S.D.				20.2 ±2.3
b. Inner Ring (100 Series)					
BD-101-3		20.0	20.0	17.0	21.0
BD-101-4		22.0	20.0	18.0	22.0
BD-102-1		19.0	17.0	14.0	20.0
BD-102-2		22.0	22.0	19.0	27.0
BD-103-1		20.0	21.0	20.0	20.0
BD-103-2		21.0	19.0	19.0	20.0
BD-104-1		21.0	19.0	14.0	19.0
BD-104-2		21.0	17.0	16.0	19.0
BD-105-1		21.0	20.0	16.0	20.0
BD-105-2		19.0	19.0	16.0	20.0
BD-106-1		21.0	20.0	17.0	20.0
BD-106-2		20.0	20.0	17.0	23.0
BD-107-1		22.0	20.0	19.0	21.0
BD-107-2		21.0	20.0	18.0	22.0
BD-108-1		21.0	19.0	16.0	20.0
BD-108-2		22.0	20.0	18.0	22.0
BD-109-1		25.0	23.0	23.0	25.0
BD-109-2		24.0	23.0	21.0	24.0
BD-110-1		22.0	18.0	18.0	21.0
BD-110-2		24.0	23.0	20.0	22.0
BD-111A-1		20.0	18.0	16.0	19.0
BD-111A-2		20.0	19.0	16.0	21.0

Exelon Nuclear
Environmental Site Report for Braidwood

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
b. Inner Ring (100 Series)					
BD-112-1		21.0	18.0	17.0	22.0
BD-112-1		21.0	20.0	18.0	22.0
BD-113A-1		22.0	19.0	18.0	20.0
BD-113A-2		22.0	19.0	18.0	21.0
BD-114-1		21.0	19.0	18.0	20.0
BD-114-2		21.0	19.0	18.0	20.0
BD-115-1		21.0	18.0	17.0	20.0
BD-115-2		23.0	20.0	17.0	22.0
BD-116-1		23.0	19.0	17.0	20.0
BD-116-2		20.0	19.0	18.0	21.0
	Inner Ring Mean ± S.D.	21.3 ±1.4	19.6 ±1.5	17.6 ±1.8	21.1 ±1.8
	Annual Inner Ring Mean ± S.D.				19.9 ±2.2
c. Outer Ring (200 Series)					
BD-201-1		25.0	23.0	22.0	25.0
BD-201-2		23.0	19.0	18.0	22.0
BD-202-1		22.0	19.0	18.0	20.0
BD-202-2		19.0	19.0	18.0	21.0
BD-203-1		24.0	17.0	19.0	22.0
BD-203-2		22.0	19.0	17.0	20.0
BD-204-1		21.0	17.0	17.0	19.0
BD-204-2		21.0	18.0	17.0	19.0
BD-205-1		21.0	16.0	16.0	19.0
BD-205-2		20.0	18.0	17.0	20.0
BD-206-1		22.0	17.0	19.0	22.0
BD-206-2		22.0	17.0	18.0	22.0
BD-207-1		20.0	19.0	18.0	21.0
BD-207-2		19.0	18.0	18.0	20.0
BD-208-1		20.0	18.0	17.0	20.0
BD-208-2		21.0	18.0	18.0	20.0
BD-209-1		24.0	21.0	23.0	23.0
BD-209-2		28.0	23.0	23.0	27.0
BD-210-1		25.0	21.0	20.0	24.0
BD-210-2		22.0	19.0	16.0	21.0
BD-211-1		27.0	25.0	23.0	31.0
BD-211-2		27.0	24.0	22.0	26.0
BD-212-3		21.0	19.0	18.0	21.0
BD-212-4		25.0	20.0	21.0	25.0
BD-213-3		19.0	19.0	18.0	22.0
BD-213-4		21.0	18.0	17.0	21.0
BD-214-1		22.0	16.0	19.0	21.0
BD-214-2		26.0	22.0	21.0	24.0

Exelon Nuclear
Environmental Site Report for Braidwood

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
Outer Ring (200 Series)					
BD-215-1		21.0	19.0	15.0	19.0
BD-215-2		20.0	17.0	16.0	20.0
BD-216-1		21.0	22.0	19.0	22.0
BD-216-2		20.0	20.0	19.0	23.0
	Outer Ring Mean ± S.D.	22.2 ±2.5	19.3 ±2.3	18.7 ±2.2	21.9 ±2.7
	Annual Outer Ring Mean ± S.D.				20.5 ±2.9
	INDICATOR LOCATION MEAN ± S.D.	21.9 ±1.9	19.5 ±1.9	18.0 ±2.0	21.4 ±2.1
	Annual INDICATOR MEAN ± S.D.				20.2 ±2.5
II. CONTROL LOCATIONS					
BD-03-1	COUNTY LINE ROAD	21.0	21.0	19.0	22.0
BD-03-2	COUNTY LINE ROAD	22.0	21.0	19.0	21.0
	CONTROL LOCATION MEAN ± S.D.	21.5 ±0.7	21.0 ±0.0	19.0 ±0.0	21.5 ±0.7
	Annual CONTROL LOCATION MEAN ± S.D.				20.8 ±0.7

5.0 GRAPHS OF DATA TRENDS

Air Particulates - Gross Beta

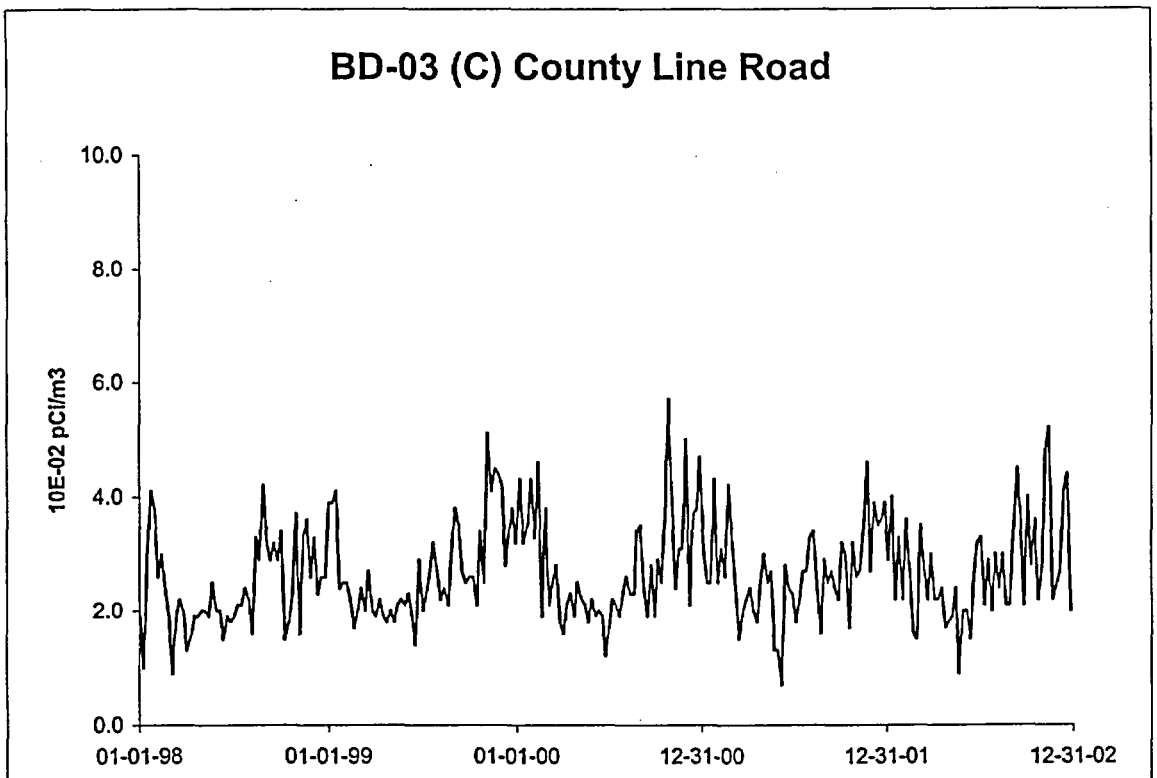

Figure 1. Continuous collection with weekly exchange of particulate filter.

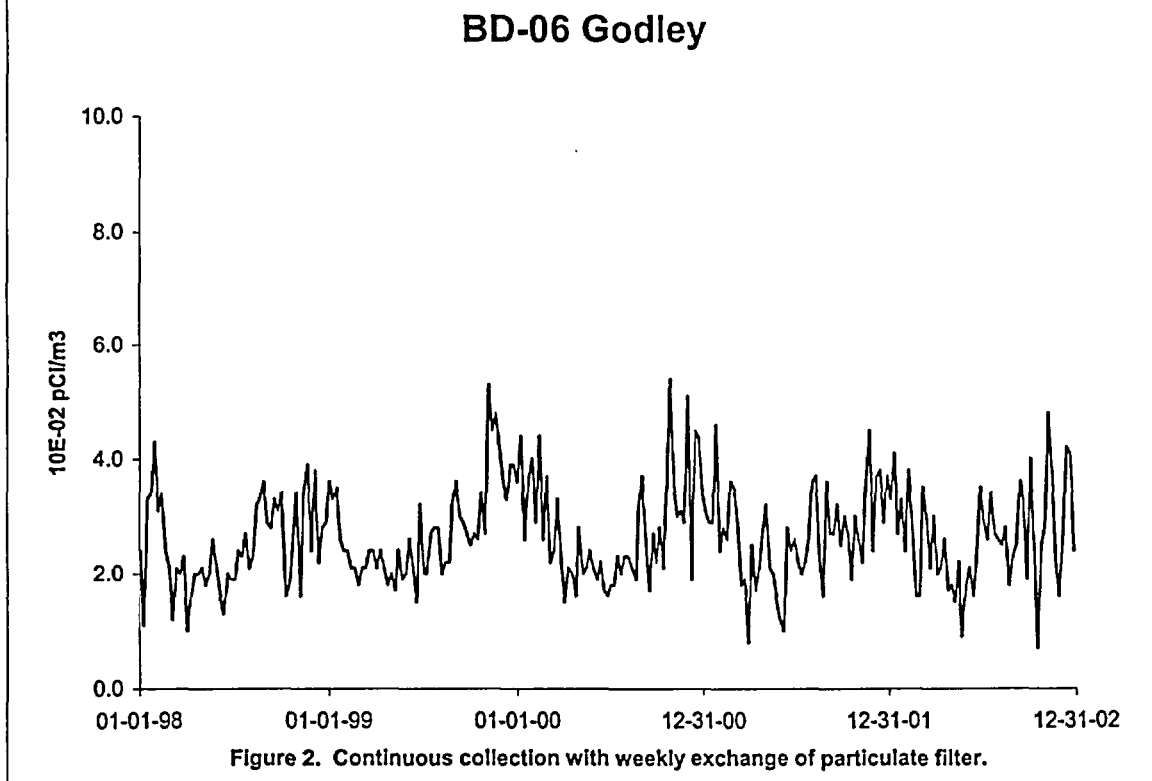

Figure 2. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

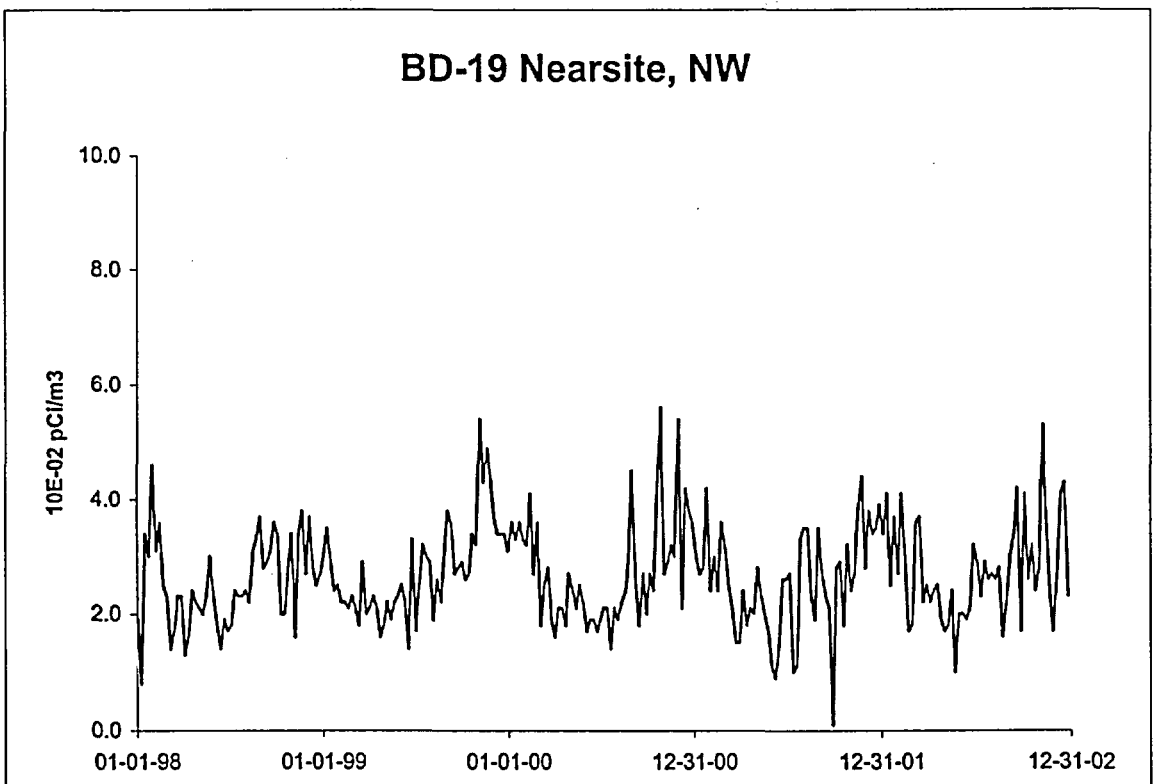

Figure 3. Continuous collection with weekly exchange of particulate filter.

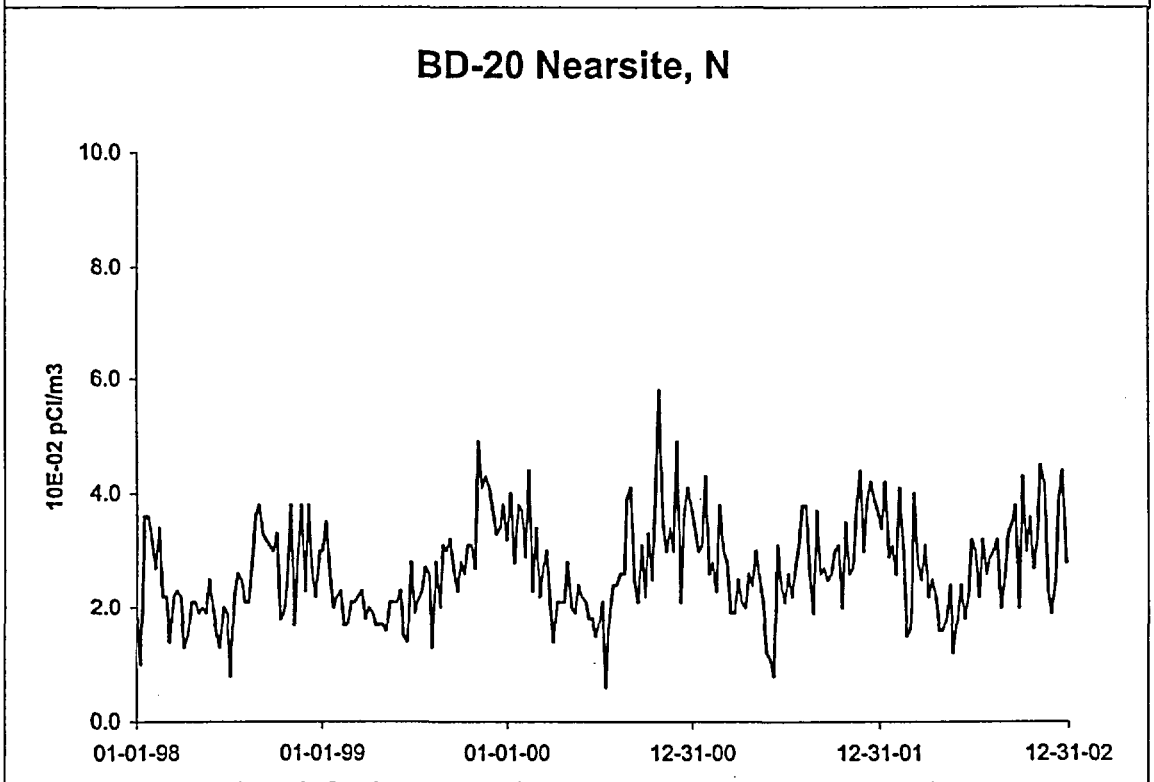

Figure 4. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

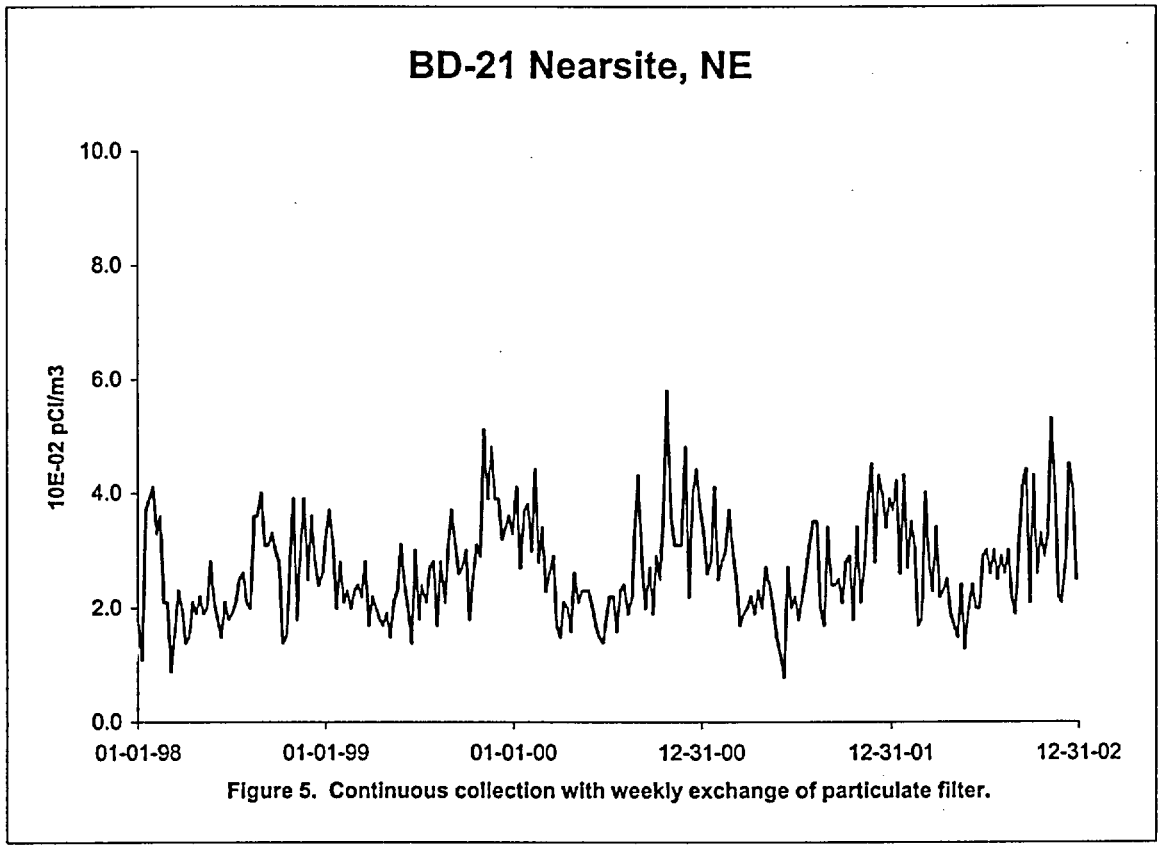

Figure 5. Continuous collection with weekly exchange of particulate filter.

Surface Water - Gross Beta

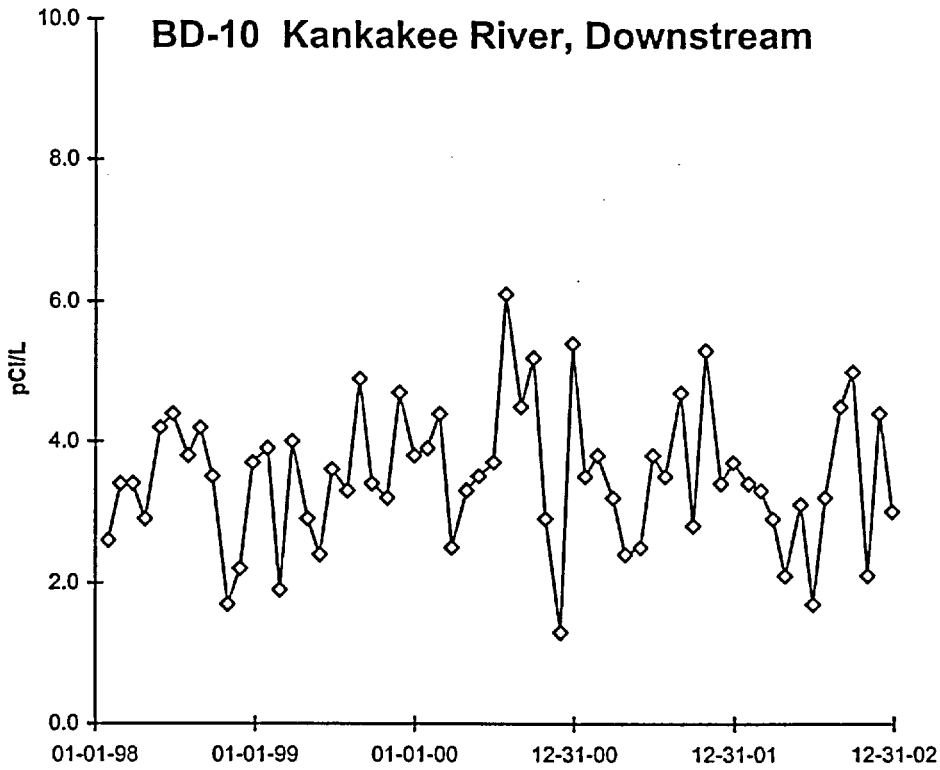

Figure 6. Monthly composites of weekly collections.

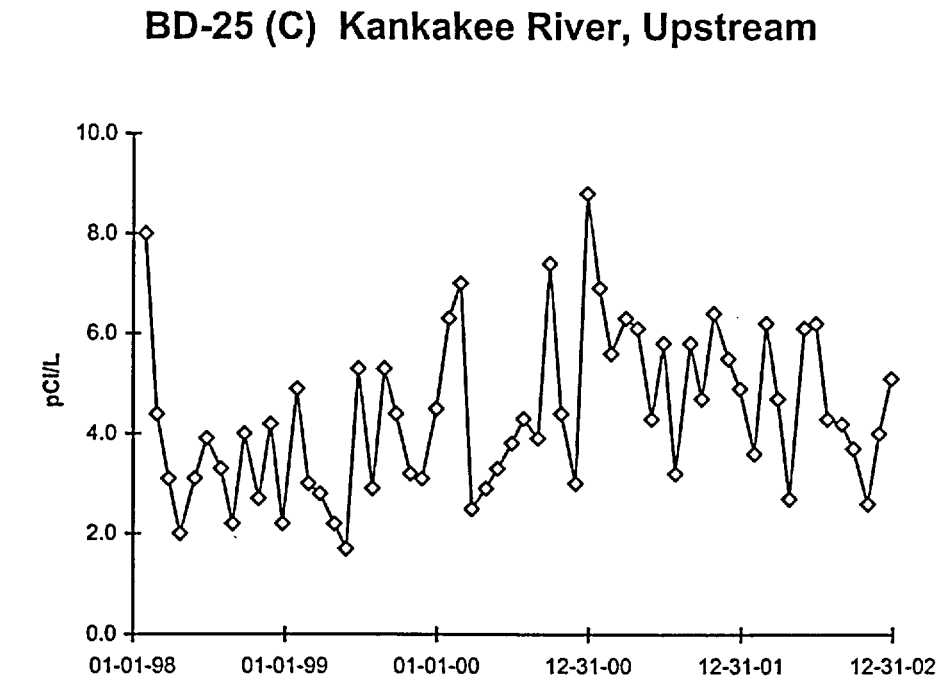

Figure 7. Monthly composites of weekly collections.

Surface Water-Tritium

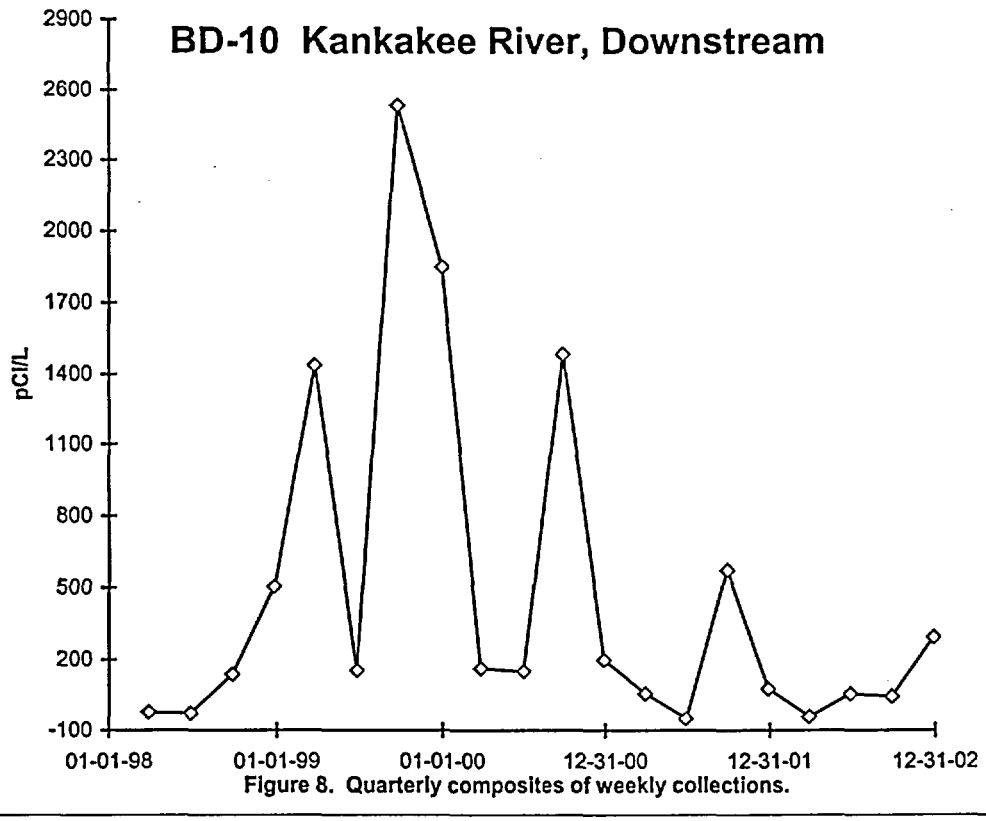

Figure 8. Quarterly composites of weekly collections.

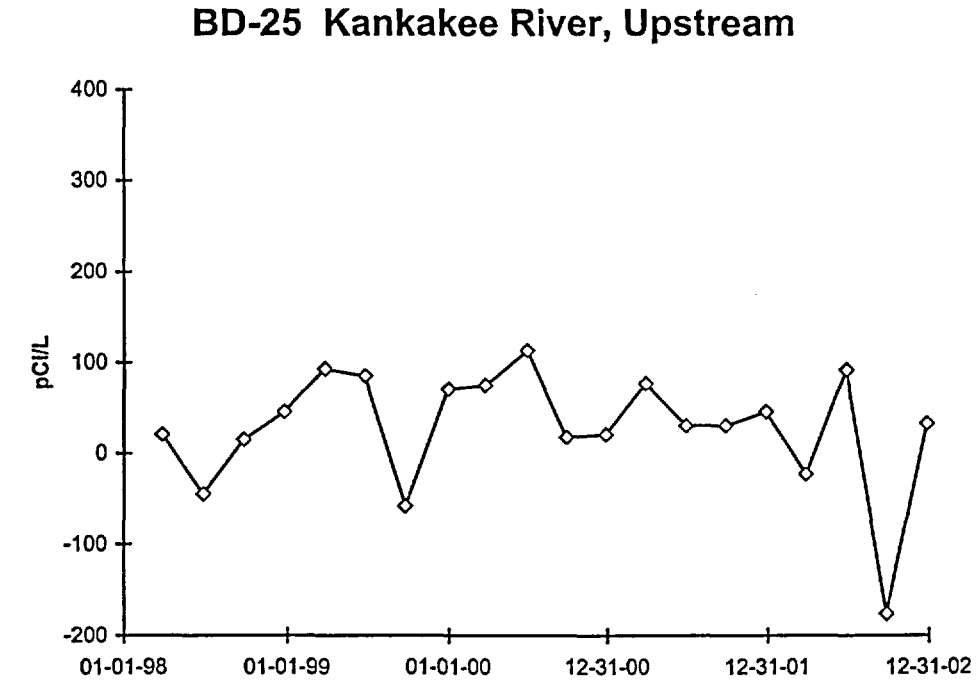

Figure 9. Quarterly composites of weekly collections.

Well Water-Tritium

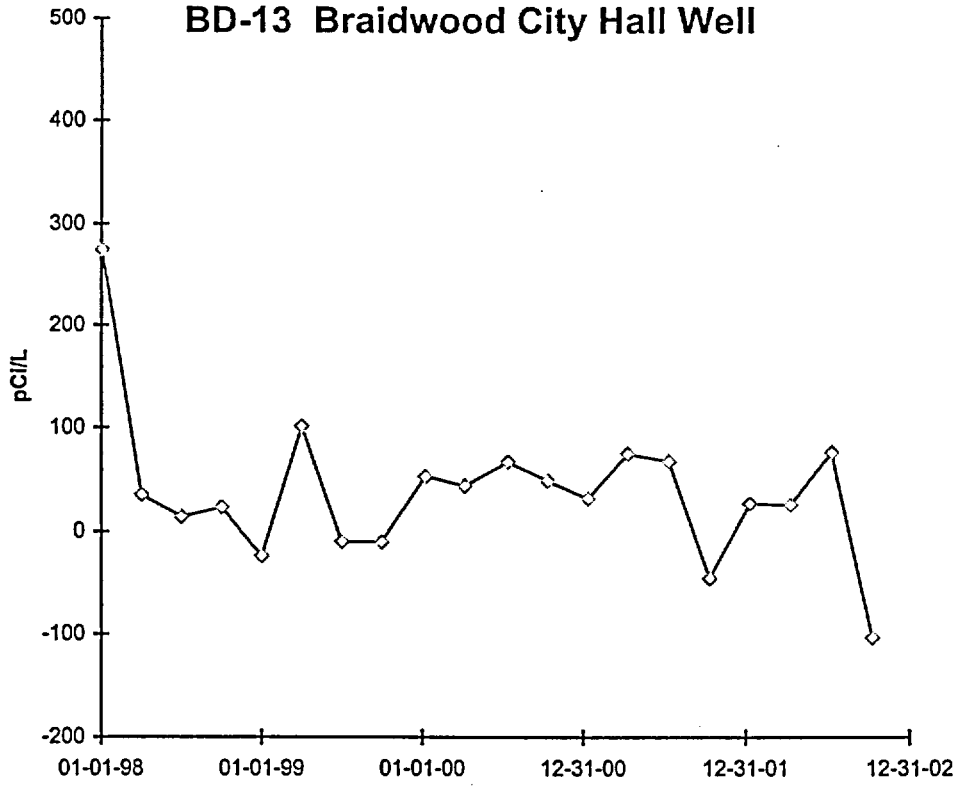

Figure 10. Quarterly collection.

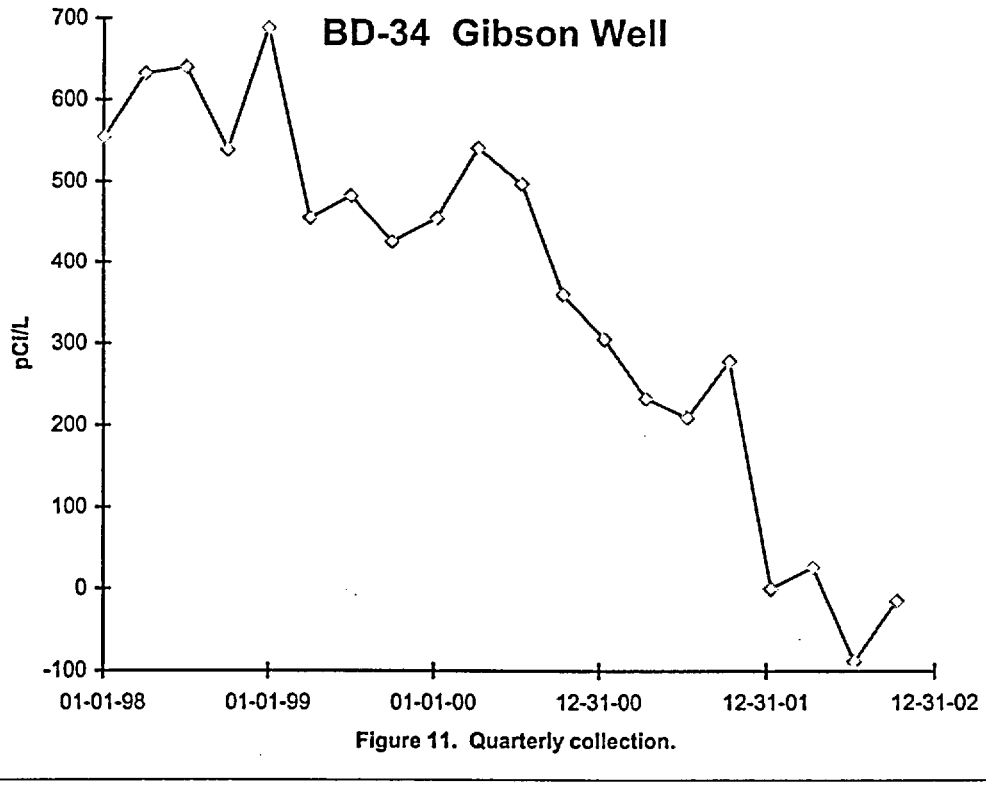

Figure 11. Quarterly collection.

Well Water-Tritium

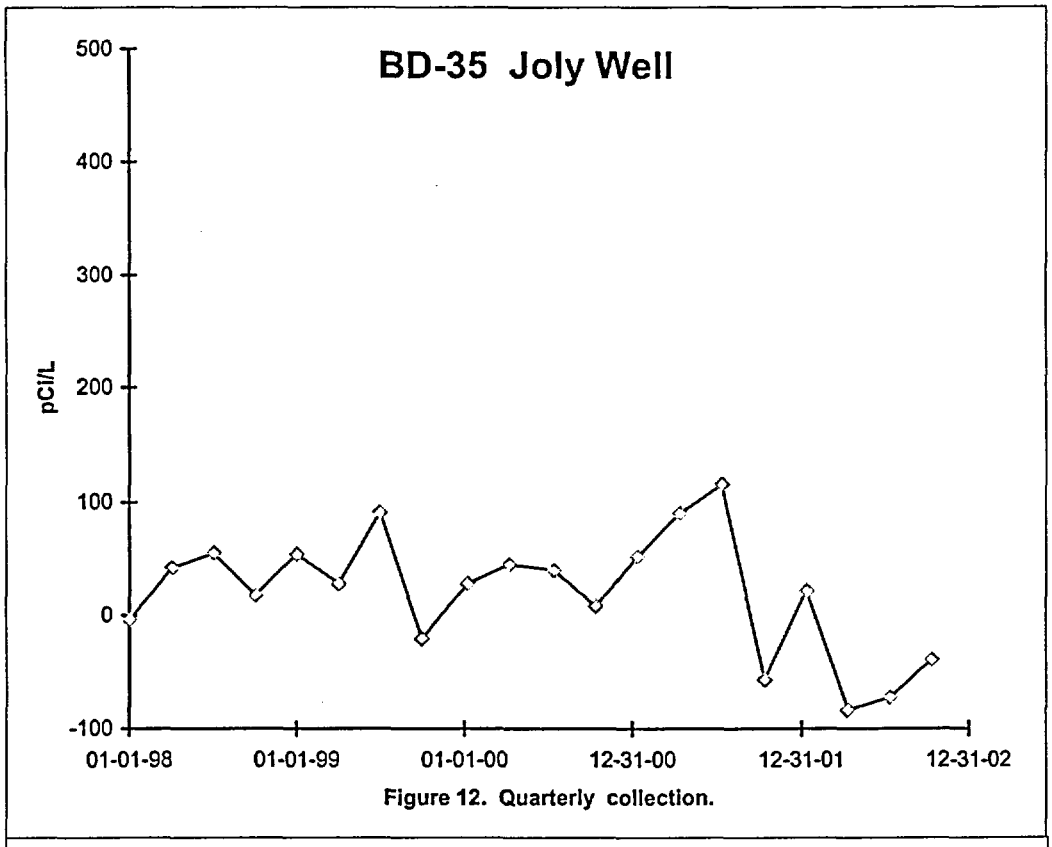

Figure 12. Quarterly collection.

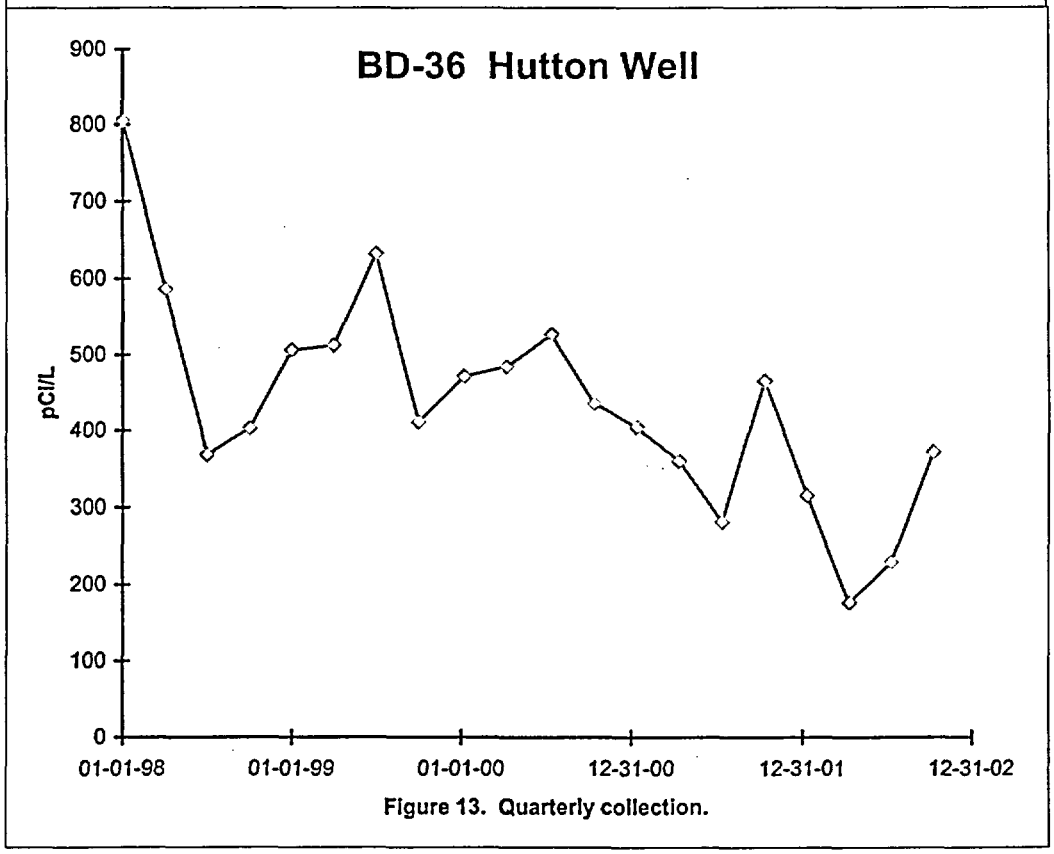

Figure 13. Quarterly collection.

Well Water-Tritium

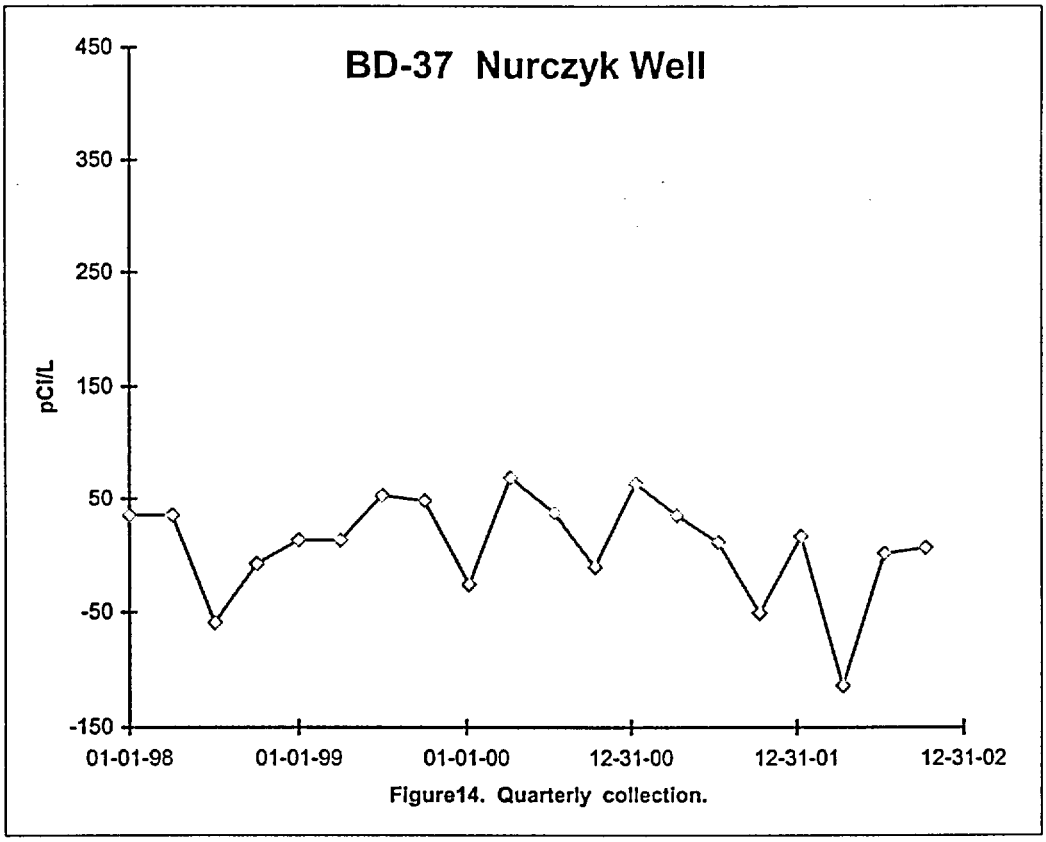

Figure14. Quarterly collection.

Public Water - Gross Beta

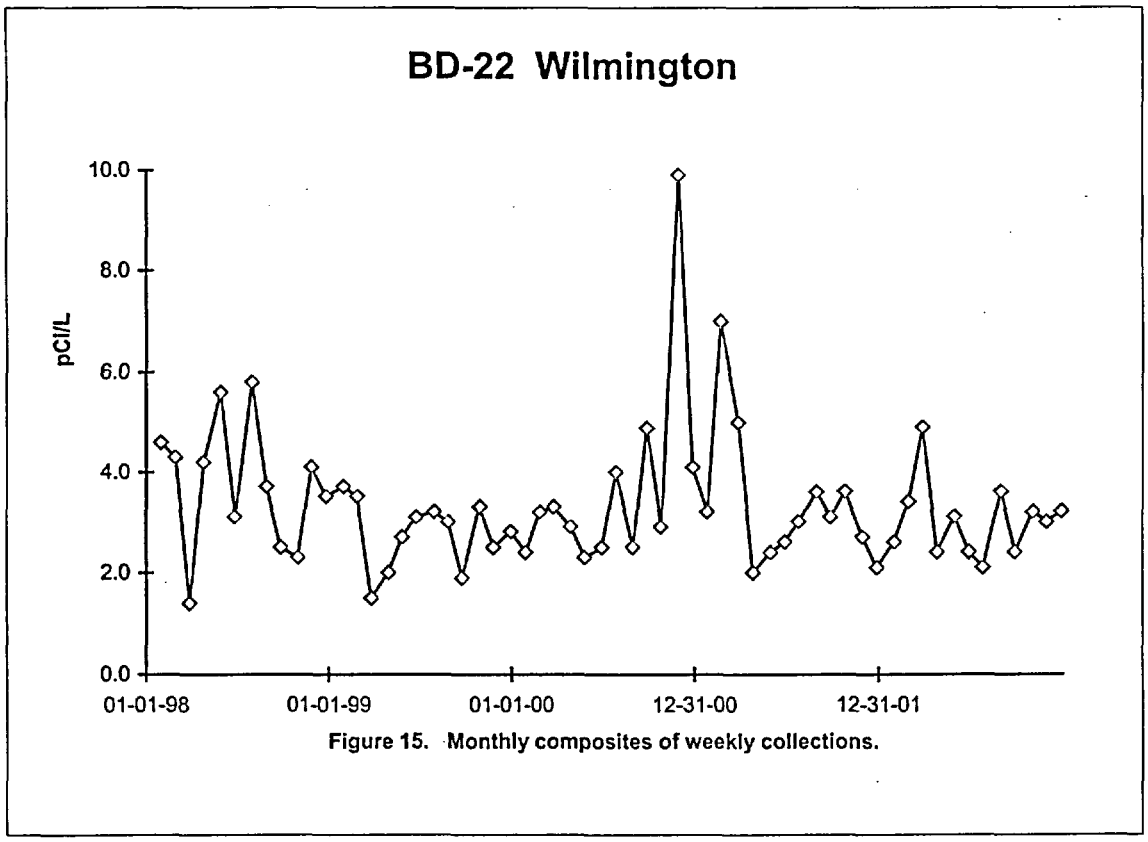

Figure 15. Monthly composites of weekly collections.

Public Water-Tritium

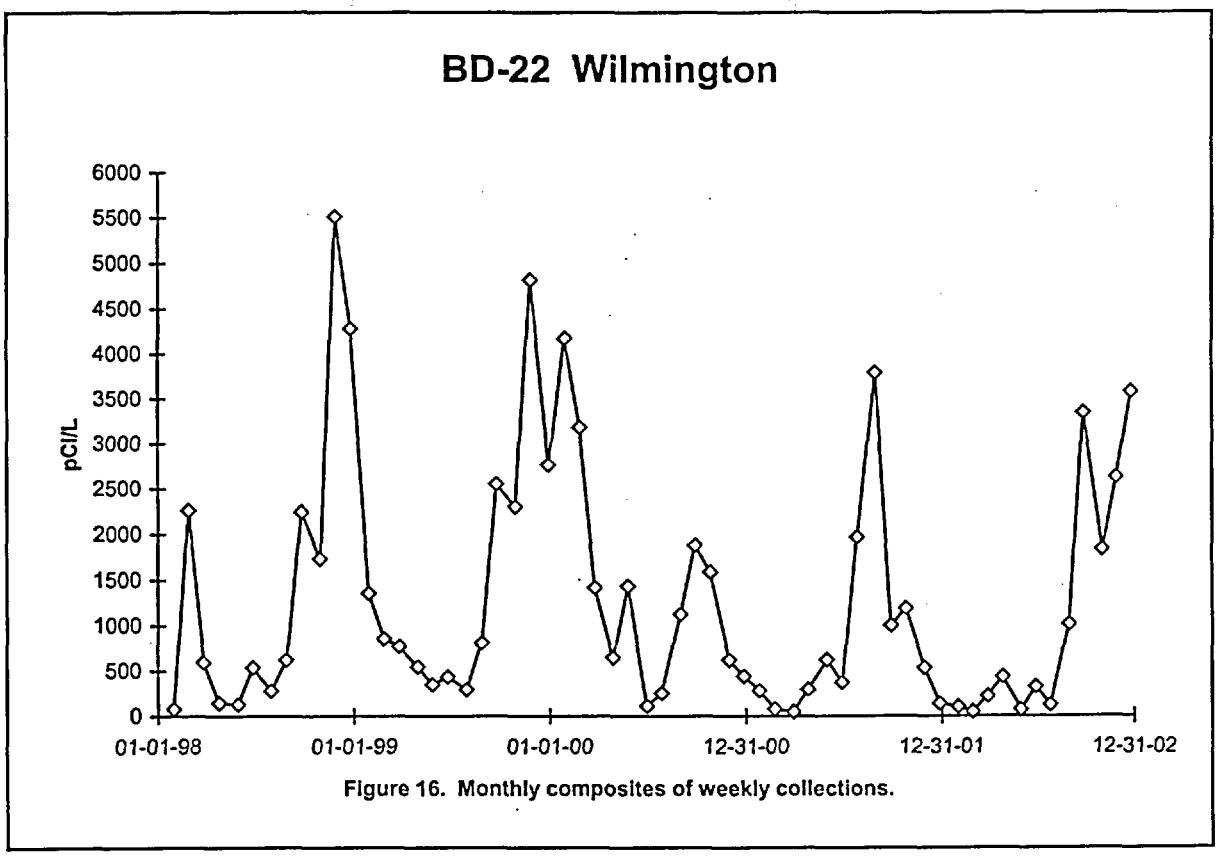

Figure 16. Monthly composites of weekly collections.

Appendix IV

Interlaboratory Comparison Program Results

Appendix IV

Interlaboratory Comparison Program Results

Environmental, Inc., Midwest Laboratory, formerly Teledyne Brown Engineering Environmental Services Midwest Laboratory has participated in interlaboratory comparison (crosscheck) programs since the formulation of it's quality control program in December 1971. These programs are operated by agencies which supply environmental type samples 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 a laboratory's analytical procedures and to alert it of 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.

Results in Table IV-1 were obtained through participation in the environmental sample crosscheck program administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

The results in Table IV-2 were obtained for Thermoluminescent Dosimeters (TLDs), via International Intercomparison of Environmental Dosimeters under the sponsorships listed in Table A-2. Results of internal laboratory testing is also listed.

Table IV-3 lists results of the analyses on in-house "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table IV-4 lists results of the analyses on in-house "blank" samples for the past twelve months. Data for previous years available upon request. request.

Table IV-5 list results of the in-house "duplicate" program for the past twelve months. Acceptance is based on the difference of the results being less than the sum of the errors. Data for previous years available upon request.

The results in Table IV-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

The results in Table IV-7 were obtained through participation in the Environmental Measurement Laboratory Quality Assessment Program.

Attachment A lists acceptance criteria for "spiked" samples.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR "SPIKED" SAMPLES

LABORATORY PRECISION: ONE STANDARD DEVIATION VALUES FOR VARIOUS ANALYSES[a]

Analysis	Level	One standard deviation for single determination
Gamma Emitters	5 to 100 pCi/liter or kg > 100 pCi/liter or kg	5.0 pCi/liter 5% of known value
Strontium-89[b]	5 to 50 pCi/liter or kg > 50 pCi/liter or kg	5.0 pCi/liter 10% of known value
Strontium-90[b]	2 to 30 pCi/liter or kg > 30 pCi/liter or kg	5.0 pCi/liter 10% of known value
Potassium-40	> 0.1 g/liter or kg	5% of known value
Gross alpha	20 pCi/liter > 20 pCi/liter	5.0 pCi/liter 25% of known value
Gross beta	100 pCi/liter > 100 pCi/liter	5.0 pCi/liter 5% of known value
Tritium	4,000 pCi/liter > 4,000 pCi/liter	1s = (pCi/liter) = 169.85 x (known)$^{0.0933}$ 10% of known value
Radium-226,-228	0.1 pCi/liter	15% of known value
Plutonium	0.1 pCi/liter, gram, or sample	10% of known value
Iodine-131, Iodine-129[b]	55 pCi/liter > 55 pCi/liter	6.0 pCi/liter 10% of known value
Uranium-238, Nickel-63[b] Technetium-99[b]	35 pCi/liter > 35 pCi/liter	6.0 pCi/liter 15% of known value
Iron-55[b]	50 to 100 pCi/liter > 100 pCi/liter	10 pCi/liter 10% of known value
Others[b]	—	20% of known value

[a] From EPA publication, "Environmental Radioactivity Laboratory Intercomparison Studies Program, Fiscal Year, 1981-1982, EPA-600/4-81-004.

[b] Laboratory limit.

TABLE IV-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code	Date	Analysis	Concentration (pCi/L) Laboratory Result[b]	ERA Result[c]	Control Limits
STW-940	02/20/02	Sr-89	53.0 ± 2.5	55.3 ± 5.0	46.6 - 64.0
STW-940	02/20/02	Sr-90	16.6 ± 0.5	15.9 ± 5.0	7.2 - 24.6
STW-942	02/20/02	Gr. Alpha	6.5 ± 0.6	8.0 ± 5.0	0.0 - 16.7
STW-942	02/20/02	Gr. Beta	45.7 ± 3.1	48.3 ± 5.0	39.6 - 57.0
STW-944	02/20/02	Ba-133	25.8 ± 1.5	28.9 ± 5.0	20.2 - 37.6
STW-944	02/20/02	Co-60	76.9 ± 2.7	73.4 ± 5.0	64.7 - 82.1
STW-944	02/20/02	Cs-134	38.7 ± 1.6	42.1 ± 5.0	33.4 - 50.8
STW-944	02/20/02	Cs-137	92.9 ± 2.7	88.8 ± 5.0	80.1 - 97.5
STW-944	02/20/02	Ra-226	15.3 ± 0.7	14.3 ± 2.2	10.6 - 18.0
STW-944	02/20/02	Ra-228	17.5 ± 0.4	16.9 ± 4.2	9.6 - 24.2
STW-944	02/20/02	Uranium	23.8 ± 1.1	28.3 ± 3.0	23.1 - 33.5
STW-944	02/20/02	Zn-65	361.0 ± 9.2	359.0 ± 35.9	298.0 - 420.0
STW-951	05/22/02	Gr. Alpha	23.9 ± 2.5	22.8 ± 5.7	13.0 - 32.6
STW-951	05/22/02	Ra-226	5.9 ± 0.5	6.1 ± 0.9	4.5 - 7.7
STW-951	05/22/02	Ra-228	5.6 ± 0.9	4.5 ± 1.1	2.6 - 6.5
STW-951	05/22/02	Uranium	7.6 ± 0.2	9.3 ± 3.0	4.1 - 14.5
STW-952	05/22/02	Co-60	37.9 ± 0.7	39.1 ± 5.0	30.4 - 47.8
STW-952	05/22/02	Cs-134	14.5 ± 0.8	17.1 ± 5.0	8.4 - 25.8
STW-952	05/22/02	Cs-137	50.0 ± 2.0	52.1 ± 5.0	43.4 - 60.8
STW-952	05/22/02	Gr. Beta	171.0 ± 2.5	189.0 ± 28.4	140.0 - 238.0
STW-952	05/22/02	Sr-89	28.4 ± 4.8	31.7 ± 5.0	23.0 - 40.4
STW-952	05/22/02	Sr-90	32.4 ± 3.1	28.3 ± 5.0	19.6 - 37.0
STW-953[d]	05/22/02	H-3	13900.0 ± 100.0	17400.0 ± 1740.0	14400.0 - 20400.0
STW-954	05/22/02	I-131	14.6 ± 0.3	14.7 ± 2.0	11.2 - 18.2
STW-965	08/21/02	Ba-133	71.9 ± 2.1	80.0 ± 8.0	66.4 - 93.6
STW-965	08/21/02	Co-60	23.8 ± 1.0	23.3 ± 5.0	14.6 - 32.0
STW-965	08/21/02	Cs-134[e]	62.9 ± 1.2	71.7 ± 5.0	63.0 - 80.4
STW-965	08/21/02	Cs-137	219.3 ± 10.7	214.0 ± 10.7	195.0 - 233.0
STW-965	08/21/02	Gr. Alpha	74.4 ± 0.6	58.8 ± 14.7	33.5 - 84.1
STW-965	08/21/02	Gr. Beta	26.7 ± 0.4	21.9 ± 2.2	13.2 - 30.6
STW-965	08/21/02	Ra-226	5.0 ± 0.5	5.0 ± 0.8	3.7 - 6.3
STW-965	08/21/02	Ra-228	6.0 ± 0.7	4.7 ± 1.2	2.7 - 6.7
STW-965	08/21/02	Sr-89	28.4 ± 1.5	29.0 ± 5.0	20.3 - 37.7
STW-965	08/21/02	Sr-90	36.5 ± 1.1	36.4 ± 5.0	27.7 - 45.1
STW-965	08/21/02	Uranium	4.1 ± 0.1	5.0 ± 3.0	0.0 - 10.2
STW-965	08/21/02	Zn-65	92.4 ± 2.2	95.7 ± 9.6	79.4 - 112.0
STW-966	11/20/02	Gr. Alpha	9.3 ± 0.4	12.2 ± 5.0	3.5 - 20.9
STW-966	11/20/02	Gr. Beta	44.7 ± 1.0	47.0 ± 5.0	38.3 - 55.7
STW-967	11/20/02	H-3	10100.0 ± 38.7	10200.0 ± 1020.0	8440.0 - 12000.0
STW-968	11/20/02	Ra-226	11.6 ± 0.1	12.1 ± 1.8	9.0 - 15.2
STW-968	11/20/02	Ra-228	16.0 ± 1.4	15.1 ± 3.8	8.6 - 21.6
STW-968	11/20/02	Uranium	15.5 ± 0.5	19.2 ± 3.0	14.0 - 24.4
STW-969	11/20/02	I-131	6.0 ± 0.4	6.8 ± 2.0	3.3 - 10.2

TABLE IV-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code	Date	Analysis	Concentration (pCi/L) Laboratory Result[b]	ERA Result[c]	Control Limits
STW-970	11/20/02	Co-60	104.0 ± 7.1	104.0 ± 5.2	95.0 - 113.0
STW-970	11/20/02	Cs-134	48.2 ± 2.3	55.5 ± 5.0	46.8 - 64.2
STW-970	11/20/02	Cs-137	109.0 ± 12.6	117.0 ± 5.9	107.0 - 127.0
STW-970	11/20/02	Gr. Beta	252.0 ± 26.8	288.0 ± 49.5	244.0 - 416.0
STW-970	11/20/02	Sr-89	43.2 ± 0.7	47.6 ± 5.0	38.9 - 56.3
STW-970	11/20/02	Sr-90	7.5 ± 0.2	7.6 ± 5.0	0.0 - 16.2
STW-971	11/20/02	Gr. Alpha	74.9 ± 1.5	103.0 ± 25.8	58.4 - 148.0
STW-971	11/20/02	Ra-226	8.9 ± 0.0	9.1 ± 1.4	6.7 - 11.5
STW-971	11/20/02	Ra-228	15.3 ± 0.1	17.8 ± 4.5	10.1 - 25.5
STW-971	11/20/02	Uranium	51.7 ± 1.6	61.7 ± 6.2	51.0 - 72.4

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

[b] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

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

[d] Analysis was repeated; result of reanalysis: 16114±487 pCi/L.

[e] ERA acknowledged an unacceptably high percentage of failure for Cs-134 and questioned its own control limits. No problems were identified in the analysis.

TABLE IV-2. Crosscheck program results; Thermoluminescent Dosimetry, (TLDs).

Lab Code	TLD Type	Date	Measurement	mR Known Value	mR Lab Result ± 2 sigma	Control Limits
Environmental, Inc.						
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #1	3.98	3.71 ± 0.12	2.79 - 5.17
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #1	3.98	3.38 ± 0.09	2.79 - 5.17
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #2	7.07	7.89 ± 0.18	4.95 - 9.19
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #2	7.07	7.64 ± 0.25	4.95 - 9.19
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #3	15.9	18.62 ± 0.40	11.13 - 20.67
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #3	15.9	19.58 ± 0.12	11.13 - 20.67
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #4	63.61	78.24 ± 1.23	44.53 - 82.69
2001-1	CaSO4: Dy Cards	12/24/2001	Reader 1, #4	63.61	79.89 ± 2.47	44.53 - 82.69
Environmental, Inc.						
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #1	4.84	4.44 ± 0.16	3.39 - 6.29
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #1	4.84	4.37 ± 0.20	3.39 - 6.29
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #2	8.60	9.08 ± 0.14	6.02 - 11.18
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #2	8.60	8.76 ± 0.16	6.02 - 11.18
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #3	19.34	22.14 ± 0.27	13.54 - 25.14
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #3	19.34	24.03 ± 0.30	13.54 - 25.14
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #4	77.36	92.77 ± 0.58	54.15 - 100.57
2002-1	CaSO4: Dy Cards	5/28/2002	Reader 1, #4	77.36	85.25 ± 0.37	54.15 - 100.57
Environmental, Inc.						
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 30	56.73	71.61 ± 1.79	39.71 - 73.75
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 45[a]	25.21	33.49 ± 1.38	17.65 - 32.77
[a] Precision of the distance (cm) measurement can significantly increase the error. The placement of the card holder on the table could account for the higher error.						
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 60	14.18	17.37 ± 1.24	9.93 - 18.43
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 75	9.08	10.65 ± 1.02	6.36 - 11.80
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 90	6.30	6.37 ± 0.54	4.41 - 8.19
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 120	3.55	4.60 ± 0.41	2.49 - 4.62
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 135	2.80	2.51 ± 0.23	1.96 - 3.64
2002-2	CaSO4: Dy Cards	12/13/2002	Reader 1, 150	2.28	2.22 ± 0.28	1.60 - 2.96

[c] Control limits are based on Attachment A, Page IV3 of this report.

TABLE IV-3. In-House "Spike" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L)[a] Laboratory results 2s, n=1[b]	Known Activity	Control Limits[c]
SPW-11552	Water	1/7/2002	Gr. Alpha	35.33 ± 1.83	34.57	17.29 - 51.86
SPW-11552	Water	1/7/2002	Gr. Beta	112.62 ± 2.44	107.70	96.93 - 118.47
SPMI-595	Milk	1/31/2002	Cs-134	29.63 ± 4.98	27.10	17.10 - 37.10
SPMI-595	Milk	1/31/2002	Cs-137	51.31 ± 7.55	50.89	40.89 - 60.89
SPMI-597	Milk	1/31/2002	Co-60	44.18 ± 7.76	41.36	31.36 - 51.36
SPMI-597	Milk	1/31/2002	Cs-134	20.15 ± 5.08	22.59	12.59 - 32.59
SPMI-597	Milk	1/31/2002	Cs-137	54.88 ± 8.32	50.89	40.89 - 60.89
SPAP-594	Air Filter	2/6/2002	Gr. Beta	1.58 ± 0.02	1.55	0.00 - 11.55
SPW-599	Water	2/19/2002	H-3	47607 ± 595	50189	40151 ± 60227
SPMI-1446	Milk	3/8/2002	I-131(G)	87.84 ± 11.47	85.20	75.20 - 95.20
SPW-1446	Water	3/8/2002	I-131	82.98 ± 1.20	85.20	68.16 - 102.24
SPW-1446	Water	3/8/2002	I-131(G)	92.75 ± 12.87	85.20	75.20 - 95.20
SPMI-1448	Milk	3/8/2002	I-131	88.00 ± 1.13	85.20	68.16 - 102.24
SPVE-1444	Vegetation	3/11/2002	I-131(G)	0.39 ± 0.04	0.42	0.25 - 0.58
SPAP-2078	Air Filter	4/8/2002	Gr. Beta	1.43 ± 0.01	1.55	0.00 - 11.55
SPW-2080	Water	4/5/2002	H-3	49121 ± 608	46912	37530 ± 56294
SPF-2082	Fish	4/5/2002	Cs-134	0.83 ± 0.04	0.83	0.50 - 1.16
SPF-2082	Fish	4/5/2002	Cs-137	1.29 ± 0.07	1.35	0.81 - 1.89
SPMI-2084	Milk	4/8/2002	Cs-134	20.93 ± 5.82	24.69	14.69 - 34.69
SPMI-2084	Milk	4/8/2002	Cs-137	51.83 ± 10.23	50.56	40.56 - 60.56
SPMI-2084	Milk	4/8/2002	I-131	87.72 ± 1.28	88.37	70.70 - 106.04
SPMI-2084	Milk	4/8/2002	I-131(G)	84.08 ± 10.75	88.37	78.37 - 98.37
SPMI-2084	Milk	4/8/2002	Sr-90	62.81 ± 1.99	66.85	53.48 - 80.22
SPW-2115	Water	4/8/2002	I-131	82.42 ± 1.27	88.37	70.70 - 106.04
SPW-2116	Water	4/8/2002	Co-60	32.47 ± 5.78	33.09	23.09 - 43.09
SPW-2116	Water	4/8/2002	Cs-134	30.80 ± 3.60	28.80	18.80 - 38.80
SPW-2116	Water	4/8/2002	Cs-137	53.85 ± 7.07	50.56	40.56 - 60.56
SPW-2116	Water	4/8/2002	I-131(G)	79.09 ± 7.58	88.37	78.37 - 98.37
SPW-2116	Water	4/8/2002	Sr-90	70.35 ± 2.32	66.85	53.48 - 80.22
SPW-2019	Water	5/3/2002	Gr. Alpha	25.89 ± 1.71	34.57	17.29 - 51.86
SPW-2019	Water	5/3/2002	Gr. Beta	101.19 ± 2.37	107.70	96.93 - 118.47
SPCH-3064	Charcoal	5/11/2002	I-131(G)	0.74 ± 0.04	0.85	0.51 - 1.18
SPW-4682	Water	7/17/2002	H-3	40856 ± 548	46179	36943 ± 55415
SPAP-4685	Air Filter	7/17/2002	Gr. Beta	1.58 ± 0.02	1.55	0.00 - 11.55
W-71702S	Water	7/17/2002	Fe-55	10463.00 ± 126.00	12200.60	9760.48 - 14640.72
W-71702S	Water	07/17/02	H-3	45779 ± 583	46179	36943 ± 55415
W-71702S	Water	07/17/02	Ni-63	17.02 ± 1.50	17.10	10.26 - 23.94
SPVE-4910	Vegetation	07/22/02	Sr-90	10.22 ± 0.80	9.04	0.00 - 19.04
W-72302S	Water	07/23/02	Sr-90	21.43 ± 0.97	26.55	16.55 - 36.55
W-80102S	Water	08/01/02	Gr. Alpha	41.25 ± 4.58	34.45	17.23 - 51.68
W-80102S	Water	08/01/02	Gr. Beta	113.66 ± 5.30	107.70	96.93 - 118.47
W-80202S	Water	08/02/02	Tc-99	16.39 ± 0.72	14.13	2.13 - 26.13
SPW-7188	Water	10/25/02	Fe-55	20396 ± 265	22778	18222 - 27334
SPW-7190	Water	10/25/02	Ni-63	227.18 ± 11.60	170.80	102.48 - 239.12

TABLE IV-3. In-House "Spike" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L) Laboratory results 2s, n=1[b]	Known Activity	Control Limits[c]
SPW-7192	Water	10/25/02	H-3	96310 ± 871	90963	72770 - 109156
SPW-7194	Water	10/25/02	C-14	42938 ± 167	49661	29796 - 69525
SPAP-7198	Air Filter	10/25/02	Gr. Beta	1.65 ± 0.02	1.53	0.00 - 11.53
SPW-7335	Water	10/30/02	Co-60	39.67 ± 7.38	37.05	27.05 - 47.05
SPW-7335	Water	10/30/02	Cs-134	33.09 ± 5.96	34.11	24.11 - 44.11
SPW-7335	Water	10/30/02	Cs-137	46.80 ± 10.39	49.90	39.90 - 59.90
SPMI-7336	Milk	10/30/02	Cs-134	34.40 ± 4.99	34.11	24.11 - 44.11
SPMI-7336	Milk	10/30/02	Cs-137	46.52 ± 8.52	49.91	39.91 - 59.91
SPF-7340	Fish	10/30/02	Cs-134	0.66 ± 0.03	0.68	0.41 - 0.95
SPF-7340	Fish	10/30/02	Cs-137	1.35 ± 0.05	1.33	0.80 - 1.86
SPS-8102	Sediment	11/01/02	Sr-90	14.69 ± 0.67	13.45	3.45 - 23.45

[a] Results are reported in units of pCi/L, except for air filters (pCi/Filter), food products, vegetation, soil, sediment (pCi/g).
[b] Results are based on single determinations.
[c] Control limits are based on Attachment A, Page IV3 of this report.

NOTE: For fish, Jello is used for the Spike matrix. For Vegetation, cabbage is used for the Spike matrix.

TABLE IV-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L)[a]		
				Laboratory results (4.66σ)		Acceptance
				LLD	Activity[b]	Criteria (4.66 σ)
SPW-11551	water	1/7/2002	Gr. Alpha	0.47	0.45 ± 0.39	1
SPW-11551	water	1/7/2002	Gr. Beta	1.37	0.55 ± 1.03	3.2
SPAP-590	Air Filter	1/31/2002	Co-60	1.78		100
SPAP-590	Air Filter	1/31/2002	Cs-134	3.42		100
SPAP-590	Air Filter	1/31/2002	Cs-137	2.33		100
SPAP-590	Air Filter	1/31/2002	Gr. Beta	0.74	-0.096 ± 0.38	3.2
SPMI-596	Milk	1/31/2002	Co-60	3.54		10
SPMI-596	Milk	1/31/2002	Cs-134	3.24		10
SPMI-596	Milk	1/31/2002	Cs-137	3.89		10
SPMI-596	Milk	1/31/2002	K-40		1472.1 ± 101.50	0
SPW-598	water	1/31/2002	Co-60	2.30		10
SPW-598	water	1/31/2002	Cs-134	3.74		10
SPW-598	water	1/31/2002	Cs-137	3.23		10
SPW-600	water	1/31/2002	H-3	138.80	-96.5 ± 63.40	200
SPMI-1447	Milk	3/7/2002	I-131(G)	7.63		20
SPVE-1443	Vegetation	3/8/2002	I-131(G)	0.02		20
SPW-1445	water	3/8/2002	Co-60	2.76		10
SPW-1445	water	3/8/2002	Cs-134	2.87		10
SPW-1445	water	3/8/2002	Cs-137	4.34		10
SPW-1445	water	3/8/2002	I-131	0.45	0.17 ± 0.31	0.5
SPW-1445	water	3/8/2002	I-131(G)	6.50		20
SPMI-1447	Milk	3/8/2002	I-131	0.31	0.15 ± 0.22	0.5
SPAP-2077	Air Filter	4/8/2002	Gr. Beta	0.32	-0.055 ± 0.19	3.2
SPW-2079	water	4/5/2002	H-3	134.17	16.13 ± 67.39	200
SPF-2081	Fish	4/5/2002	Cs-134	7.67		100
SPF-2081	Fish	4/5/2002	Cs-137	9.54		100
SPMI-2083	Milk	4/8/2002	Cs-134	2.90		10
SPMI-2083	Milk	4/8/2002	Cs-137	3.03		10
SPMI-2083	Milk	4/8/2002	I-131	0.52	-0.38 ± 0.34	0.5
SPMI-2083	Milk[c]	4/8/2002	Sr-90	0.48	1.29 ± 0.36	1
SPW-2115	water	4/8/2002	Co-60	1.49		10
SPW-2115	water	4/8/2002	Cs-134	2.09		10
SPW-2115	water	4/8/2002	Cs-137	3.78		10
SPW-2115	water	4/8/2002	I-131	0.50	-0.16 ± 0.33	0.5
SPW-2115	water	4/8/2002	I-131(G)	3.30		20
SPW-2115	water	4/8/2002	Sr-90	0.66	0.10 ± 0.32	1
SPW-2018	water	4/22/2002	Gr. Alpha	0.56	-0.24 ± 0.38	1
SPW-2018	water	4/22/2002	Gr. Beta	1.38	3.19 ± 1.03	3.2
SPch-3063	Charcoal	5/11/2002	I-131(G)	8.27		9.6
SPW-4683	water	7/17/2002	H-3	129.00	-62.8 ± 60.30	200
W-71702	water	7/17/2002	Fe-55	33.61	-1.72 ± 15.63	1000
W-71702	water	7/17/2002	Ni-63	2.56	0.71 ± 1.37	20
W-71802B	water	7/18/2002	Gr. Alpha	0.48	0.31 ± 0.36	1
W-71802B	water	7/18/2002	Gr. Beta	1.33	0.9 ± 0.95	3.2

TABLE IV-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L)[a]		
				Laboratory results (4.66σ)		Acceptance
				LLD	Activity[b]	Criteria (4.66 σ)
W-72302	water	7/23/2002	Sr-90	0.27	0.027 ± 0.13	1
W-80202	water	8/2/2002	Tc-99	0.34	-0.051 ± 0.16	10
SPW-7189	water	10/25/2002	Fe-55	978.21	21.77 ± 595.33	1000
SPW-7191	water	10/25/2002	Ni-63	11.74	4.47 ± 7.24	20
SPW-7193	water	10/25/2002	H-3	146.00	-92 ± 65.00	200
SPAP-7199	Air Filter	10/25/2002	Gr. Beta	0.00	-0.0024 ± 0.00	3.2
SPMI-7333	Milk	10/30/2002	Cs-134	5.30		10
SPMI-7333	Milk	10/30/2002	Cs-137	4.80		10
SPW-7334	water	10/30/2002	Co-60	3.69		10
SPW-7334	water	10/30/2002	Cs-134	5.37		10
SPW-7334	water	10/30/2002	Cs-137	3.90		10
SPF-7339	Fish	10/30/2002	Cs-134	4.69		100
SPF-7339	Fish	10/30/2002	Cs-137	11.18		100

[a] Liquid sample results are reported in pCi/Liter, air filters(pCi/filter), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

[b] The activity reported is the net activity result.

[c] Low levels of Sr-90 are still detected in the environment. A concentration of (1-5 pCi/L) in milk is not unusual.

TABLE IV-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result
CF-20, 21	1/2/2002	Be-7	0.47 ± 0.25	0.37 ± 0.12	0.42 ± 0.14
CF-20, 21	1/2/2002	Gr. Beta	7.82 ± 0.20	7.95 ± 0.21	7.89 ± 0.14
CF-20, 21	1/2/2002	K-40	6.65 ± 0.55	6.53 ± 0.36	6.59 ± 0.33
CF-20, 21	1/2/2002	Sr-90	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.00
AP-11804, 11805	1/2/2002	Be-7	0.054 ± 0.011	0.049 ± 0.019	0.052 ± 0.011
AP-11825, 11826	1/2/2002	Be-7	0.053 ± 0.013	0.043 ± 0.013	0.048 ± 0.009
AP-11846, 11847	1/2/2002	Be-7	0.054 ± 0.018	0.048 ± 0.016	0.051 ± 0.012
WW-150, 151	1/7/2002	Gr. Beta	1.26 ± 0.50	1.04 ± 0.46	1.15 ± 0.34
MI-124, 125	1/8/2002	K-40	1332.30 ± 158.90	1271.70 ± 151.50	1302.00 ± 109.77
W-172, 173	1/8/2002	H-3	153.00 ± 68.00	148.00 ± 68.00	150.50 ± 48.08
SW-11698, 11699	1/8/2002	Gr. Alpha	2.51 ± 1.36	3.71 ± 1.80	3.11 ± 1.13
SW-11698, 11699	1/8/2002	Gr. Beta	7.68 ± 1.33	8.49 ± 1.43	8.09 ± 0.98
U-275, 276	1/10/2002	Gr. Alpha	1.40 ± 1.00	1.10 ± 1.20	1.25 ± 0.78
LW-356, 357	1/16/2002	Gr. Beta	3.47 ± 0.65	2.94 ± 0.61	3.21 ± 0.45
LW-377, 378	1/16/2002	Gr. Beta	2.75 ± 0.68	2.84 ± 0.61	2.79 ± 0.46
SW-525, 526	1/30/2002	Gr. Alpha	0.56 ± 0.35	0.24 ± 0.35	0.40 ± 0.25
SW-525, 526	1/30/2002	Gr. Beta	2.29 ± 0.41	2.58 ± 0.39	2.43 ± 0.28
DW-504, 505	1/31/2002	Gr. Alpha	2.30 ± 1.70	3.90 ± 1.40	3.10 ± 1.10
MI-649, 650	2/5/2002	K-40	1319.40 ± 176.70	1210.80 ± 118.20	1265.10 ± 106.29
DW-697, 698	2/6/2002	Gr. Beta	5.10 ± 1.20	4.70 ± 1.20	4.90 ± 0.85
DW-927, 928	2/8/2002	Sr-90	0.69 ± 0.29	0.71 ± 0.29	0.70 ± 0.21
W-973, 974	2/18/2002	Fe-55	7.29 ± 0.97	6.86 ± 0.94	7.08 ± 0.68
W-1673, 1674	2/25/2002	H-3	2640.00 ± 155.00	2908.00 ± 161.00	2774.00 ± 111.74
SWT-1395, 1396	2/26/2002	Gr. Beta	2.96 ± 0.59	2.29 ± 0.53	2.63 ± 0.40
MI-1268, 1269	2/27/2002	K-40	1460.50 ± 162.50	1573.00 ± 168.00	1516.75 ± 116.87
MI-1268, 1269	2/27/2002	Sr-90	0.77 ± 0.36	0.95 ± 0.40	0.86 ± 0.27
MI-1332, 1333	3/5/2002	K-40	1503.00 ± 164.00	1305.00 ± 168.00	1404.00 ± 117.39
MI-1332, 1333	3/5/2002	Sr-90	1.35 ± 0.38	1.07 ± 0.40	1.21 ± 0.28
MI-1458, 1459	3/6/2002	K-40	1411.70 ± 166.70	1390.00 ± 172.30	1400.85 ± 119.87
DW-10100, 10101	3/9/2002	Gr. Alpha	4.10 ± 1.70	1.80 ± 1.60	2.95 ± 1.17
DW-10111, 10112	3/9/2002	Gr. Alpha	7.10 ± 2.00	8.30 ± 2.30	7.70 ± 1.52
MI-1521, 1522	3/11/2002	K-40	1270.80 ± 103.30	1369.10 ± 121.60	1319.95 ± 79.78
MI-1521, 1522	3/11/2002	Sr-90	1.69 ± 0.46	2.46 ± 0.49	2.07 ± 0.34
MI-1541, 1542	3/11/2002	K-40	1562.20 ± 122.80	1529.30 ± 126.10	1545.75 ± 88.01
MI-1541, 1542	3/11/2002	Sr-90	0.85 ± 0.57	1.48 ± 0.43	1.16 ± 0.36
LW-1651, 1652	3/14/2002	Gr. Beta	2.90 ± 0.57	2.57 ± 0.56	2.74 ± 0.40
DW-10134, 10135	3/16/2002	Gr. Alpha	5.60 ± 1.90	5.40 ± 1.60	5.50 ± 1.24
WW-1694, 1695	3/18/2002	Gr. Beta	1.79 ± 0.59	1.53 ± 0.50	1.66 ± 0.39
SO-1715, 1716	3/19/2002	Cs-137	0.03 ± 0.01	0.02 ± 0.01	0.03 ± 0.01
SO-1715, 1716	3/19/2002	Gr. Beta	18.50 ± 1.70	19.10 ± 1.70	18.80 ± 1.20
DW-10302, 10303	3/20/2002	Gr. Alpha	2.30 ± 1.40	3.30 ± 1.60	2.80 ± 1.06
W-1758, 1759	3/25/2002	Gr. Alpha	2.50 ± 0.70	2.30 ± 0.60	2.40 ± 0.46
W-1758, 1759	3/25/2002	Gr. Beta	4.10 ± 1.20	2.50 ± 1.10	3.30 ± 0.81

TABLE IV-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result
MI-1926, 1927	3/26/2002	K-40	1414.00 ± 115.00	1316.00 ± 128.00	1365.00 ± 86.04
MI-1926, 1927	3/26/2002	Sr-90	2.30 ± 0.70	2.40 ± 0.70	2.35 ± 0.49
SWU-2010, 2011	3/26/2002	Gr. Beta	2.90 ± 0.60	2.20 ± 0.50	2.55 ± 0.39
DW-10376, 10377	3/27/2002	Gr. Beta	10.50 ± 1.30	10.10 ± 1.50	10.30 ± 0.99
AP-2479, 2480	3/28/2002	Be-7	0.064 ± 0.023	0.068 ± 0.014	0.066 ± 0.013
DW-10395, 10396	3/29/2002	Gr. Alpha	10.20 ± 2.10	14.60 ± 2.40	12.40 ± 1.59
LW-2181, 2182	3/31/2002	Gr. Beta	2.98 ± 0.68	1.99 ± 0.70	2.48 ± 0.49
LW-2181, 2182	3/31/2002	H-3	2694.43 ± 156.53	2688.84 ± 156.40	2691.64 ± 110.64
CW-2437, 2438	3/31/2002	Gr. Beta	1.09 ± 0.61	1.14 ± 0.58	1.11 ± 0.42
CW-2437, 2438	3/31/2002	H-3	6456.70 ± 229.20	6292.80 ± 226.52	6374.75 ± 161.12
MI-1947, 1948	4/1/2002	K-40	1421.40 ± 130.90	1256.80 ± 104.20	1339.10 ± 83.65
AP-2458, 2459	4/1/2002	Be-7	0.077 ± 0.011	0.081 ± 0.010	0.079 ± 0.008
DW-10409, 10410	4/1/2002	Gr. Alpha	39.30 ± 4.00	35.30 ± 3.60	37.30 ± 2.69
MI-2052, 2053	4/3/2002	K-40	1283.70 ± 103.20	1434.80 ± 147.90	1359.25 ± 90.17
MI-2052, 2053	4/3/2002	Sr-90	0.81 ± 0.36	0.75 ± 0.35	0.78 ± 0.25
AP-2711, 2712	4/3/2002	Be-7	0.071 ± 0.01	0.07 ± 0.01	0.07 ± 0.01
W-938, 939	4/9/2002	Ni-63	1.73 ± 0.10	1.82 ± 0.10	1.78 ± 0.07
SS-2202, 2203	4/9/2002	Gr. Beta	5.83 ± 1.16	5.52 ± 1.19	5.67 ± 0.83
SS-2202, 2203	4/9/2002	K-40	5.75 ± 0.48	6.11 ± 0.51	5.93 ± 0.35
F-2307, 2308	4/10/2002	K-40	2.75 ± 0.27	2.49 ± 0.32	2.62 ± 0.21
DW-10476, 10477	4/12/2002	Gr. Alpha	5.10 ± 1.30	3.90 ± 1.60	4.50 ± 1.03
W-2244, 2245	4/15/2002	Gr. Beta	1.70 ± 1.10	1.60 ± 1.00	1.65 ± 0.74
DW-10509, 10510	4/17/2002	Gr. Alpha	6.00 ± 2.00	7.30 ± 1.80	6.65 ± 1.35
SW-2690, 2691	4/24/2002	Gr. Beta	2.25 ± 0.68	2.15 ± 0.59	2.20 ± 0.45
SO-2903, 2904	4/24/2002	Be-7	1.22 ± 0.57	0.78 ± 0.43	1.00 ± 0.36
SO-2903, 2904	4/24/2002	Cs-137	0.13 ± 0.05	0.09 ± 0.05	0.11 ± 0.04
SO-2903, 2904	4/24/2002	K-40	21.06 ± 1.48	19.91 ± 1.16	20.48 ± 0.94
DW-10562, 10563	4/24/2002	Gr. Alpha	2.17 ± 1.13	3.25 ± 1.54	2.71 ± 0.96
DW-10578, 10579	4/29/2002	Gr. Alpha	8.20 ± 2.20	7.40 ± 2.00	7.80 ± 1.49
SO-2861, 2862	4/30/2002	Cs-137	236.40 ± 46.00	200.70 ± 52.60	218.55 ± 34.94
SO-2861, 2862	4/30/2002	K-40	10191.00 ± 784.60	11025.00 ± 941.30	10608.00 ± 612.71
SL-2819, 2820	5/1/2002	Be-7	805.70 ± 301.50	860.73 ± 164.80	833.22 ± 171.80
SL-2819, 2820	5/1/2002	Gr. Beta	5566.00 ± 124.00	5359.00 ± 122.00	5462.50 ± 86.98
SL-2819, 2820	5/1/2002	K-40	5524.00 ± 632.90	5277.50 ± 431.40	5400.75 ± 382.97
SL-2840, 2841	5/1/2002	Be-7	1010.00 ± 352.10	872.95 ± 181.70	941.48 ± 198.11
SL-2840, 2841	5/1/2002	Gr. Beta	4399.00 ± 221.80	4593.00 ± 276.00	4496.00 ± 177.04
SL-2840, 2841	5/1/2002	K-40	2422.80 ± 352.10	2254.10 ± 371.40	2338.45 ± 255.89
MI-2971, 2972	5/5/2002	K-40	1338.90 ± 83.44	1345.80 ± 100.90	1342.35 ± 65.47
MI-2971, 2972	5/5/2002	Sr-90	0.83 ± 0.47	1.65 ± 0.46	1.24 ± 0.33
DW-10603, 10604	5/6/2002	Gr. Alpha	6.30 ± 1.70	5.50 ± 1.60	5.90 ± 1.17
SS-3037, 3038	5/9/2002	K-40	11585.00 ± 749.00	11612.00 ± 787.00	11598.50 ± 543.22
MI-3124, 3125	5/13/2002	K-40	1329.50 ± 103.80	1373.00 ± 107.40	1351.25 ± 74.68
MI-3208, 3209	5/14/2002	K-40	1494.60 ± 158.40	1462.60 ± 182.50	1478.60 ± 120.83
LW-3250, 3251	5/15/2002	Gr. Beta	3.14 ± 0.55	3.28 ± 0.63	3.21 ± 0.42

TABLE IV-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result
CF-3292, 3293	5/20/2002	K-40	1.33 ± 0.99	1.14 ± 0.91	1.23 ± 0.67
MI-3376, 3377	5/26/2002	K-40	1333.30 ± 159.40	1090.70 ± 143.40	1212.00 ± 107.21
MI-3418, 3419	5/28/2002	K-40	1423.70 ± 121.30	1443.30 ± 164.30	1433.50 ± 102.11
SWT-3461, 3462	5/28/2002	Gr. Beta	2.65 ± 0.54	3.28 ± 0.60	2.97 ± 0.40
SO-3503, 3504	5/29/2002	Cs-137	0.17 ± 0.04	0.18 ± 0.05	0.18 ± 0.03
SO-3503, 3504	5/29/2002	Gr. Beta	27.72 ± 2.26	25.45 ± 2.03	26.58 ± 1.52
SO-3503, 3504	5/29/2002	K-40	20.24 ± 1.19	20.54 ± 1.24	20.39 ± 0.86
SL-3545, 3546	6/3/2002	Gr. Beta	4436.00 ± 90.00	4281.00 ± 89.00	4358.50 ± 63.29
SL-3545, 3546	6/3/2002	K-40	4684.20 ± 734.40	5242.50 ± 884.50	4963.35 ± 574.82
DW-10754, 10755	6/6/2002	Sr-90	0.50 ± 0.30	0.60 ± 0.30	0.55 ± 0.21
SW-3777, 3778	6/11/2002	Gr. Alpha	4.42 ± 1.50	2.97 ± 1.40	3.70 ± 1.02
SW-3777, 3778	6/11/2002	Gr. Beta	7.57 ± 1.22	6.83 ± 1.16	7.20 ± 0.84
MI-3798, 3799	6/11/2002	K-40	1433.40 ± 124.20	1401.20 ± 96.96	1417.30 ± 78.78
LW-3924, 3925	6/13/2002	Gr. Beta	3.05 ± 0.59	3.38 ± 0.72	3.21 ± 0.46
MI-3966, 3967	6/18/2002	K-40	1245.20 ± 109.20	1340.20 ± 121.90	1292.70 ± 81.83
MI-3966, 3967	6/18/2002	Sr-90	2.38 ± 0.51	2.63 ± 0.52	2.51 ± 0.36
MI-3987, 3988	6/19/2002	Sr-90	0.98 ± 0.35	0.97 ± 0.35	0.98 ± 0.25
MI-4095, 4096	6/25/2002	K-40	1256.10 ± 138.20	1199.00 ± 128.30	1227.55 ± 94.29
SWU-4221, 4222	6/25/2002	Gr. Beta	6.89 ± 1.97	5.38 ± 1.93	6.13 ± 1.38
LW-4179, 4180	6/27/2002	Gr. Beta	2.37 ± 0.58	2.00 ± 0.62	2.19 ± 0.42
G-4329, 4330	7/1/2002	Be-7	1394.80 ± 538.40	1098.10 ± 437.40	1246.45 ± 346.84
G-4329, 4330	7/1/2002	Gr. Beta	8.10 ± 0.27	8.00 ± 0.25	8.05 ± 0.18
G-4329, 4330	7/1/2002	K-40	7758.20 ± 1100.00	8399.80 ± 929.30	8079.00 ± 720.00
SL-4337, 4338	7/1/2002	Be-7	1480.90 ± 223.80	1726.40 ± 552.60	1603.65 ± 298.10
SL-4337, 4338	7/1/2002	Cs-137	32.30 ± 14.70	50.97 ± 27.10	41.64 ± 15.42
SL-4337, 4338	7/1/2002	Gr. Beta	5262.40 ± 522.10	5432.40 ± 540.00	5347.40 ± 375.56
SL-4337, 4338	7/1/2002	K-40	2249.00 ± 381.90	2989.90 ± 509.60	2619.45 ± 318.41
AP-4864, 4865	7/1/2002	Be-7	0.085 ± 0.009	0.085 ± 0.006	0.085 ± 0.006
MI-4359, 4360	7/2/2002	K-40	1390.10 ± 168.30	1567.40 ± 194.30	1478.75 ± 128.53
AP-4569, 4570	7/2/2002	Be-7	0.068 ± 0.016	0.086 ± 0.018	0.077 ± 0.012
AP-4843, 4844	7/2/2002	Be-7	0.077 ± 0.016	0.090 ± 0.020	0.084 ± 0.013
AP-4789, 4790	7/3/2002	Be-7	0.080 ± 0.013	0.078 ± 0.015	0.079 ± 0.010
SWU-4810, 4811	7/3/2002	Gr. Beta	2.40 ± 0.84	2.47 ± 0.88	2.43 ± 0.61
MI-4548, 4549	7/9/2002	K-40	1511.80 ± 127.00	1446.80 ± 101.80	1479.30 ± 81.38
DW-4737, 4738	7/12/2002	I-131	0.52 ± 0.20	0.49 ± 0.29	0.51 ± 0.18
MI-4632, 4633	7/15/2002	K-40	1198.40 ± 114.10	1371.30 ± 146.90	1284.85 ± 93.00
MI-5054, 5055	7/30/2002	K-40	1428.80 ± 105.60	1344.30 ± 106.40	1386.55 ± 74.95
G-5075, 5076	7/30/2002	Gr. Beta	7.11 ± 0.07	6.99 ± 0.07	7.05 ± 0.05
SWU-5124, 5125	7/30/2002	Gr. Beta	1.75 ± 0.84	1.90 ± 0.78	1.82 ± 0.57
G-5151, 5152	7/31/2002	Be-7	1.82 ± 0.30	2.05 ± 0.32	1.93 ± 0.22
G-5151, 5152	7/31/2002	K-40	5.13 ± 0.66	5.72 ± 0.70	5.42 ± 0.48
MI-5103, 5104	8/2/2002	K-40	1415.90 ± 70.57	1423.80 ± 129.20	1419.85 ± 73.61
LW-5434, 5435	8/5/2002	Gr. Beta	2.77 ± 0.35	2.26 ± 0.35	2.52 ± 0.25
MI-5215, 5216	8/7/2002	K-40	1361.10 ± 111.90	1358.30 ± 115.80	1359.70 ± 80.52

TABLE IV-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result
MI-5355, 5356	8/13/2002	K-40	1405.00 ± 165.80	1549.30 ± 114.40	1477.15 ± 100.72
F-5413, 5414	8/15/2002	Gr. Beta	2.37 ± 0.10	2.55 ± 0.10	2.46 ± 0.07
F-5413, 5414	8/15/2002	K-40	1.47 ± 0.32	1.73 ± 0.43	1.60 ± 0.27
MI-5603, 5604	8/26/2002	I-131	0.64 ± 0.34	0.52 ± 0.36	0.58 ± 0.25
MI-5603, 5604	8/26/2002	K-40	1353.60 ± 83.13	1261.40 ± 117.80	1307.50 ± 72.09
MI-5578, 5579	8/27/2002	K-40	1301.50 ± 161.70	1381.60 ± 111.20	1341.55 ± 98.12
VE-5682, 5683	8/28/2002	Be-7	0.29 ± 0.10	0.25 ± 0.11	0.27 ± 0.08
VE-5682, 5683	8/28/2002	Gr. Beta	3.79 ± 0.08	3.80 ± 0.08	3.79 ± 0.06
VE-5682, 5683	8/28/2002	K-40	3.06 ± 0.29	3.31 ± 0.42	3.18 ± 0.25
WW-6188, 6189	8/31/2002	Gr. Beta	2.70 ± 0.57	2.30 ± 0.57	2.50 ± 0.41
SL-5724, 5725	9/3/2002	Be-7	0.92 ± 0.19	1.04 ± 0.23	0.98 ± 0.15
SL-5724, 5725	9/3/2002	Cs-137	0.05 ± 0.02	0.05 ± 0.02	0.05 ± 0.01
SL-5724, 5725	9/3/2002	K-40	2.09 ± 0.31	2.28 ± 0.48	2.19 ± 0.29
MI-5877, 5878	9/9/2002	K-40	1340.70 ± 165.00	1168.50 ± 172.50	1254.60 ± 119.35
MI-6157, 6158	9/19/2002	K-40	1372.10 ± 115.10	1136.50 ± 222.70	1254.30 ± 125.34
MI-6258, 6259	9/24/2002	K-40	1328.60 ± 201.00	1312.60 ± 118.60	1320.60 ± 116.69
LW-6278, 6279	9/30/2002	Gr. Beta	2.15 ± 0.51	1.70 ± 0.50	1.93 ± 0.36
MI-6385, 6386	10/1/2002	K-40	1297.10 ± 168.90	1310.10 ± 128.30	1303.60 ± 106.05
BS-6453, 6454	10/1/2002	Cs-137	0.43 ± 0.03	0.44 ± 0.03	0.44 ± 0.02
BS-6453, 6454	10/1/2002	K-40	16.50 ± 0.51	16.80 ± 0.61	16.65 ± 0.40
SO-6478, 6479	10/1/2002	Cs-137	0.074 ± 0.016	0.070 ± 0.016	0.072 ± 0.011
SO-6478, 6479	10/1/2002	Gr. Alpha	8.01 ± 4.36	7.55 ± 4.57	7.78 ± 3.16
SO-6478, 6479	10/1/2002	Gr. Beta	30.41 ± 4.07	33.04 ± 4.28	31.73 ± 2.95
SO-6478, 6479	10/1/2002	K-40	19.82 ± 0.53	20.39 ± 0.58	20.10 ± 0.39
SO-6478, 6479	10/1/2002	Sr-90	0.087 ± 0.017	0.094 ± 0.020	0.091 ± 0.013
AP-6641, 6642	10/1/2002	Be-7	0.070 ± 0.016	0.080 ± 0.015	0.075 ± 0.011
MI-6544, 6545	10/2/2002	K-40	1331.60 ± 125.20	1326.50 ± 171.60	1329.05 ± 106.21
AP-6857, 6858	10/3/2002	Be-7	0.062 ± 0.015	0.071 ± 0.015	0.066 ± 0.010
AP-6857, 6858	10/3/2002	Be-7	0.062 ± 0.015	0.071 ± 0.015	0.066 ± 0.010
AP-6857, 6858	10/3/2002	Be-7	0.062 ± 0.015	0.071 ± 0.015	0.066 ± 0.010
BS-6620, 6621	10/7/2002	Co-60	0.090 ± 0.020	0.11 ± 0.02	0.10 ± 0.01
BS-6620, 6621	10/7/2002	Cs-137	0.62 ± 0.04	0.63 ± 0.03	0.62 ± 0.02
BS-6620, 6621	10/7/2002	K-40	11.38 ± 0.48	10.78 ± 0.52	11.08 ± 0.35
MI-6651, 6652	10/8/2002	K-40	1565.50 ± 141.00	1640.60 ± 189.20	1603.05 ± 117.98
G-6760, 6761	10/9/2002	Be-7	2.17 ± 0.49	2.31 ± 0.34	2.24 ± 0.30
G-6760, 6761	10/9/2002	K-40	6.24 ± 1.00	6.61 ± 0.60	6.42 ± 0.58
SWU-7054, 7055	10/10/2002	Gr. Beta	3.09 ± 0.57	2.06 ± 0.52	2.57 ± 0.39
U-7126, 7127	10/11/2002	Gr. Beta	2.61 ± 1.24	2.61 ± 1.08	2.61 ± 0.82
XW-7768, 7769	10/14/2002	Cs-137	2.25 ± 0.25	2.09 ± 0.18	2.17 ± 0.15
XW-7768, 7769	10/14/2002	H-3	2.63 ± 0.10	2.64 ± 0.10	2.64 ± 0.07
F-7148, 7149	10/15/2002	K-40	2.57 ± 0.28	2.98 ± 0.44	2.77 ± 0.26
BS-7337, 7338	10/23/2002	Co-60	0.083 ± 0.025	0.073 ± 0.031	0.078 ± 0.020
BS-7337, 7338	10/23/2002	Cs-137	0.082 ± 0.019	0.11 ± 0.04	0.10 ± 0.02
BS-7337, 7338	10/23/2002	Gr. Beta	12.54 ± 2.34	12.99 ± 2.22	12.77 ± 1.61
SO-7407, 7408	10/29/2002	Cs-137	0.14 ± 0.03	0.15 ± 0.03	0.15 ± 0.02
SO-7407, 7408	10/29/2002	Gr. Beta	16.73 ± 2.21	16.62 ± 2.27	16.67 ± 1.58
SO-7407, 7408	10/29/2002	K-40	12.05 ± 0.61	12.27 ± 0.81	12.16 ± 0.51

TABLE IV-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result
MI-7428, 7429	10/29/2002	K-40	1542.60 ± 213.00	1355.80 ± 185.70	1449.20 ± 141.29
pw-7621, 7622	10/30/2002	Gr. Beta	2.22 ± 0.92	2.08 ± 0.83	2.15 ± 0.62
TD-7653, 7654	10/31/2002	H-3	11122.00 ± 387.00	11259.00 ± 390.00	11190.50 ± 274.71
SW-7569, 7570	11/5/2002	Gr. Beta	15.90 ± 1.25	16.24 ± 1.27	16.07 ± 0.89
SW-7569, 7570	11/5/2002	K-40	14.79 ± 1.48	14.79 ± 1.48	14.79 ± 1.05
SO-8010, 8011	11/7/2002	Cs-137	0.11 ± 0.02	0.11 ± 0.03	0.11 ± 0.02
SO-8010, 8011	11/7/2002	K-40	6.91 ± 0.54	7.21 ± 0.54	7.06 ± 0.38
VE-7747, 7748	11/11/2002	Gr. Beta	3.59 ± 0.05	3.25 ± 0.05	3.42 ± 0.03
VE-7747, 7748	11/11/2002	K-40	3.17 ± 0.36	3.26 ± 0.46	3.22 ± 0.29
MI-7789, 7790	11/13/2002	K-40	1319.30 ± 167.60	1301.20 ± 140.70	1310.25 ± 109.41
DW-8082, 8083	11/29/2002	I-131	0.83 ± 0.24	0.98 ± 0.22	0.90 ± 0.16
SW-8054, 8055	12/2/2002	Gr. Beta	2.60 ± 0.46	2.21 ± 0.39	2.41 ± 0.30
SW-8054, 8055	12/2/2002	K-40	1.44 ± 0.14	1.43 ± 0.14	1.44 ± 0.10
MI-8105, 8106	12/4/2002	K-40	1300.60 ± 111.30	1315.40 ± 108.90	1308.00 ± 77.86
TD-8298, 8299	12/5/2002	H-3	355.00 ± 94.00	469.00 ± 99.00	412.00 ± 68.26
MI-8396, 8397	12/17/2002	K-40	1409.20 ± 117.30	1449.60 ± 108.60	1429.40 ± 79.93
SWT-8654, 8655	12/30/2002	Gr. Beta	1.63 ± 0.50	1.40 ± 0.47	1.51 ± 0.34
AP-8783, 8784	12/31/2002	Be-7	0.044 ± 0.009	0.042 ± 0.008	0.043 ± 0.006

Note: Duplicate analyses are performed on every twentieth sample received in-house. Results are not listed for those analyses with activities that measure below the LLD.

[a] Results are reported in units of pCi/L, except for air filters (pCi/Filter), food products, vegetation, soil, sediment (pCi/g).

TABLE IV-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

			Concentration[b]			
Lab Code	Type	Date	Analysis	Laboratory result	Known Activity	Control Limits[c]
STW-939	water	12/01/01	Am-241	1.25 ± 0.0	1.19 ± 0.0	0.83 - 1.6
STW-939	water	12/01/01	Co-57	138.9 ± 0.5	143 ± 14.3	100.1 - 185.9
STW-939	water	12/01/01	Co-60	139.1 ± 0.5	141 ± 14.1	98.7 - 183.3
STW-939	water	12/01/01	Cs-134	25.16 ± 0.2	28.5 ± 0.3	19.95 - 37.1
STW-939	water	12/01/01	Cs-137	279.96 ± 0.9	286 ± 28.6	200.2 - 371.8
STW-939[d]	water	12/01/01	Fe-55	19.68 ± 23.2	9.2 ± 0.9	6.44 - 12.0
STW-939	water	12/01/01	Mn-54	253.64 ± 0.9	246 ± 0.2	172.2 - 319.8
STW-939	water	12/01/01	Ni-63	65.88 ± 1.9	88.3 ± 8.8	61.81 - 114.8
STW-939[e]	water	12/01/01	Pu-238	0.060 ± 0.01	0.0 ± 0.0	-
STW-939	water	12/01/01	Pu-239/40	2.79 ± 0.0	2.99 ± 0.3	2.09 - 3.9
STW-939	water	12/01/01	Sr-90	4.88 ± 0.3	4.8 ± 0.5	3.36 - 6.2
STW-939	water	12/01/01	U-233/4	0.89 ± 0.0	0.98 ± 0.1	0.69 - 1.3
STW-939	water	12/01/01	U-238	6.75 ± 0.0	7.8 ± 0.8	5.46 - 10.1
STW-939	water	12/01/01	Zn-65	70.6 ± 1.1	67.3 ± 6.7	47.11 - 87.5
STSO-955	soil	10/16/02	Am-241	40.54 ± 2.7	43.5 ± 4.4	30.45 - 56.6
STSO-955	soil	10/16/02	Co-57	210.58 ± 2.0	246 ± 24.6	172.2 - 319.8
STSO-955	soil	10/16/02	Co-60	84.38 ± 0.9	87.5 ± 8.8	61.25 - 113.8
STSO-955	soil	10/16/02	Cs-134	692.6 ± 2.1	862 ± 86.0	603.4 - 1120.6
STSO-955	soil	10/16/02	Cs-137	96.98 ± 1.7	111 ± 11.1	77.7 - 144.3
STSO-955	soil	10/16/02	Fe-55	1714.6 ± 299.6	1870 ± 187.0	1309 - 2431.0
STSO-955	soil	10/16/02	Mn-54	509.74 ± 3.4	546 ± 54.6	382.2 - 709.8
STSO-955	soil	10/16/02	Ni-63	890.6 ± 22.4	1180 ± 118.0	826 - 1534.0
STSO-955	soil	10/16/02	Pu-238	34.04 ± 6.0	33.3 ± 3.3	23.31 - 43.3
STSO-955	soil	10/16/02	Pu-239/40	68.7 ± 3.7	72.9 ± 7.3	51.03 - 94.8
STSO-955[e]	soil	10/16/02	Sr-90	1.5 ± 3.0	0.0 ± 0.0	-
STSO-955	soil	10/16/02	U-233/4	166.33 ± 3.8	229 ± 22.9	160.3 - 297.7
STSO-955	soil	10/16/02	U-238	169.76 ± 3.8	220 ± 22.0	154 - 286.0
STSO-955	soil	10/16/02	Zn-65	783.59 ± 6.4	809 ± 80.9	566.3 - 1051.7

[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.

[d] Known activity below the laboratory LLD. The sample was recounted for 2000 minutes; result : 11.52 ± 5.55 Bq /L

[e] Included in the testing series as a "false positive". No activity expected.

TABLE IV-7. Environmental Measurements Laboratory Quality Assessment Program (EML)

Lab Code	Type	Date	Concentration[a]			
			Analysis	Laboratory results	EML Result[b]	Control Limits[c]
STW-945	Water	03/01/02	Am-241	1.68 ± 0.14	1.47	0.79 - 1.41
STW-945	Water	03/01/02	Co-60	349.20 ± 2.60	347.33	0.80 - 1.20
STW-945	Water	03/01/02	Cs-134	3.40 ± 0.60	3.36	0.80 - 1.30
STW-945	Water	03/01/02	Cs-137	57.20 ± 1.70	56.07	0.80 - 1.22
STW-945	Water	03/01/02	Pu-238	0.45 ± 0.11	0.49	0.74 - 1.20
STW-945	Water	03/01/02	Pu-239/40	4.47 ± 0.28	4.22	0.79 - 1.20
STW-945	Water	03/01/02	Sr-90	7.40 ± 1.30	7.58	0.69 - 1.34
STW-945	Water	03/01/02	Uranium	3.27 ± 0.43	2.84	0.75 - 1.33
STW-946	Water	03/01/02	Gr. Alpha	265.40 ± 7.70	375.00	0.58 - 1.29
STW-946	Water	03/01/02	Gr. Beta	930.60 ± 12.00	1030.00	0.61 - 1.43
STW-946	Water	03/01/02	H-3	226.30 ± 32.70	283.70	0.78 - 2.45
STSO-947	Soil	03/01/02	Ac-228	55.00 ± 5.50	51.17	0.80 - 1.38
STSO-947	Soil	03/01/02	Am-241	8.30 ± 3.30	10.93	0.65 - 2.28
STSO-947	Soil	03/01/02	Bi-212	49.20 ± 12.40	53.43	0.50 - 1.34
STSO-947	Soil	03/01/02	Bi-214	46.60 ± 3.10	53.93	0.78 - 1.42
STSO-947	Soil	03/01/02	Cs-137	1401.60 ± 9.10	1326.67	0.80 - 1.25
STSO-947	Soil	03/01/02	K-40	613.10 ± 28.10	621.67	0.80 - 1.32
STSO-947	Soil	03/01/02	Pb-212	51.60 ± 2.60	51.10	0.78 - 1.32
STSO-947	Soil	03/01/02	Pb-214	52.00 ± 3.60	54.37	0.76 - 1.46
STSO-947	Soil	03/01/02	Pu-239/40	14.70 ± 3.50	19.10	0.71 - 1.30
STSO-947	Soil	03/01/02	Sr-90	52.10 ± 6.30	53.76	0.67 - 2.90
STSO-947	Soil	03/01/02	Th-234	122.40 ± 6.30	89.30	0.63 - 2.35
STSO-947	Soil	03/01/02	Uranium	143.40 ± 9.40	194.77	0.71 - 1.32
STVE-948	Vegetation	03/01/02	Am-241	3.10 ± 2.20	2.23	0.73 - 2.02
STVE-948	Vegetation	03/01/02	Cm-244	0.90 ± 0.80	1.32	0.61 - 1.59
STVE-948	Vegetation	03/01/02	Co-60	13.50 ± 2.10	11.23	0.80 - 1.44
STVE-948	Vegetation	03/01/02	Cs-137	350.40 ± 6.30	313.67	0.80 - 1.31
STVE-948	Vegetation	03/01/02	K-40	940.80 ± 45.60	864.33	0.79 - 1.39
STVE-948[d]	Vegetation	03/01/02	Pu-239/40	16.90 ± 0.70	3.54	0.69 - 1.31
STVE-948	Vegetation	03/01/02	Sr-90	543.40 ± 24.90	586.28	0.55 - 1.21
STAP-949	Air Filter	03/01/02	Am-241	0.09 ± 0.05	0.09	0.70 - 2.34
STAP-949	Air Filter	03/01/02	Co-60	30.10 ± 0.30	30.52	0.80 - 1.26
STAP-949	Air Filter	03/01/02	Cs-137	29.90 ± 0.30	28.23	0.80 - 1.32
STAP-949	Air Filter	03/01/02	Mn-54	40.40 ± 0.40	38.53	0.80 - 1.35
STAP-949	Air Filter	03/01/02	Pu-238	0.05 ± 0.02	0.06	0.67 - 1.33
STAP-949	Air Filter	03/01/02	Pu-239/40	0.15 ± 0.02	0.19	0.73 - 1.26
STAP-949	Air Filter	03/01/02	Sr-90	3.40 ± 0.40	4.83	0.53 - 1.84
STAP-949	Air Filter	03/01/02	Uranium	0.80 ± 0.20	0.61	0.79 - 2.10
STAP-950	Air Filter	03/01/02	Gr. Alpha	0.43 ± 0.04	0.53	0.73 - 1.43
STAP-950	Air Filter	03/01/02	Gr. Beta	1.34 ± 0.05	1.30	0.76 - 1.36
STW-959	Water	09/01/02	Am-241	3.00 ± 0.10	3.04	0.79 - 1.41
STW-959	Water	09/01/02	Co-60	258.40 ± 2.30	268.67	0.80 - 1.20
STW-959	Water	09/01/02	Cs-134	50.80 ± 3.30	60.20	0.80 - 1.30
STW-959	Water	09/01/02	Cs-137	80.10 ± 0.30	81.43	0.80 - 1.22
STW-959	Water	09/01/02	Cs-137	80.10 ± 0.30	81.43	0.80 - 1.22
STW-959	Water	09/01/02	Am-241	3.00 ± 0.10	3.04	0.79 - 1.41

TABLE IV-7. Environmental Measurements Laboratory Quality Assessment Program (EML)[a].

Lab Code	Type	Date	Concentration[b] Analysis	Laboratory results	EML Result[c]	Control Limits[d]
STW-959	Water	09/01/02	Am-241	3.00 ± 0.10	3.04	0.79 - 1.41
STW-959	Water	09/01/02	Co-60	258.40 ± 2.30	268.67	0.80 - 1.20
STW-959	Water	09/01/02	Cs-134	50.80 ± 3.30	60.20	0.80 - 1.30
STW-959	Water	09/01/02	Cs-137	80.10 ± 0.30	81.43	0.80 - 1.22
STW-959	Water	09/01/02	H-3	271.90 ± 20.90	227.30	0.78 - 2.45
STW-959	Water	09/01/02	Pu-238	4.40 ± 0.20	4.33	0.74 - 1.20
STW-959	Water	09/01/02	Pu-239/40	2.10 ± 0.10	2.07	0.79 - 1.20
STW-959	Water	09/01/02	Sr-90	9.70 ± 0.20	8.69	0.69 - 1.34
STW-959	Water	09/01/02	Uranium	5.60 ± 0.10	6.84	0.75 - 1.33
STW-960	Water	09/01/02	Gr. Alpha	204.90 ± 3.20	210.00	0.58 - 1.29
STW-960	Water	09/01/02	Gr. Beta	852.00 ± 26.50	900.00	0.61 - 1.43
STSO-961	Soil	09/01/02	Ac-228	47.60 ± 1.90	42.30	0.80 - 1.38
STSO-961	Soil	09/01/02	Am-241	7.80 ± 1.40	6.77	0.65 - 2.28
STSO-961	Soil	09/01/02	Bi-212	45.60 ± 1.70	45.93	0.50 - 1.34
STSO-961[e]	Soil	09/01/02	Bi-214	48.80 ± 4.90	33.63	0.78 - 1.42
STSO-961	Soil	09/01/02	Cs-137	819.60 ± 16.60	829.33	0.80 - 1.25
STSO-961	Soil	09/01/02	K-40	705.30 ± 31.40	637.67	0.80 - 1.32
STSO-961	Soil	09/01/02	Pb-212	48.60 ± 3.40	43.43	0.78 - 1.32
STSO-961	Soil	09/01/02	Pb-214	51.10 ± 5.10	35.20	0.76 - 1.46
STSO-961[f]	Soil	09/01/02	Pu-239/40	20.20 ± 0.80	12.90	0.71 - 1.30
STSO-961	Soil	09/01/02	Sr-90	38.50 ± 0.10	41.16	0.67 - 2.90
STSO-961[g]	Soil	09/01/02	Uranium	58.90 ± 0.70	87.21	0.71 - 1.32
STVE-962	Vegetation	09/01/02	Am-241	2.10 ± 0.30	2.25	0.73 - 2.02
STVE-962	Vegetation	09/01/02	Cm-244	1.00 ± 0.30	1.25	0.61 - 1.59
STVE-962	Vegetation	09/01/02	Co-60	11.80 ± 1.50	9.66	0.80 - 1.44
STVE-962	Vegetation	09/01/02	Cs-137	340.30 ± 16.80	300.67	0.80 - 1.31
STVE-962	Vegetation	09/01/02	K-40	1646.00 ± 74.40	1480.00	0.79 - 1.39
STVE-962	Vegetation	09/01/02	Pu-239/40	3.00 ± 0.30	3.43	0.69 - 1.31
STVE-962	Vegetation	09/01/02	Sr-90	345.60 ± 97.80	476.26	0.55 - 1.21
STAP-963[h]	Air Filter	09/01/02	Am-241	0.20 ± 0.01	0.19	0.70 - 2.34
STAP-963	Air Filter	09/01/02	Co-60	24.90 ± 0.60	23.00	0.80 - 1.26
STAP-963	Air Filter	09/01/02	Cs-137	38.00 ± 1.30	32.50	0.80 - 1.32
STAP-963	Air Filter	09/01/02	Mn-54	60.80 ± 1.90	52.20	0.80 - 1.35
STAP-963[h]	Air Filter	09/01/02	Pu-238	0.11 ± 0.02	0.12	0.67 - 1.33
STAP-963[h]	Air Filter	09/01/02	Pu-239/40	0.21 ± 0.01	0.21	0.73 - 1.26
STAP-963	Air Filter	09/01/02	Sr-90	5.20 ± 0.20	5.56	0.53 - 1.84
STAP-963[h]	Air Filter	09/01/02	Uranium	0.41 ± 0.04	0.47	0.79 - 2.10
STAP-964	Air Filter	09/01/02	Gr. Alpha	0.40 ± 0.10	0.29	0.73 - 1.43
STAP-964	Air Filter	09/01/02	Gr. Beta	0.80 ± 0.10	0.87	0.76 - 1.36

[a] Results are reported in Bq/L with the following exceptions: Air Filters (Bq/Filter), Soil and Vegetation (Bq/kg).

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

[c] Control limits are reported by EML as the ratio of Reported Value / EML value.

[d] An error was found in the conversion from pCi/g to Bq/kg. Corrected result : 2.84 ± 0.59 Bq/kg.

[e] Naturally-occurring radium daughters are present in the shield background, and a probable cause of the higher bias seen for isotopes of lead and bismuth.

[f] Reporting error.The average result of the triplicate analyses was 14.1± 5.7 Bq/kg.

[g] The analysis was repeated in duplicate; result of reanalysis, 87.05 ± 7.64 Bq/kg.

[h] STAP-963, Calculations for the transuranics analyses (Am-241, Uranium, Pu-238, -239/40) were not converted to Bq/total filter. The data listed is the result of recalculation.