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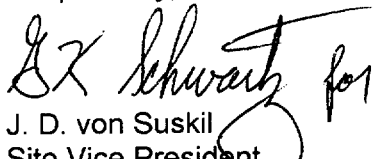
Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457

Subject: 2000 Annual Radiological Environmental Operating Report

Attached is the 2000 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 (ODCM) and 10 CFR 50, Appendix I, 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 15<sup>th</sup> of each year.

If you have any questions regarding this information, please contact Ms. Amy Ferko, Regulatory Assurance Manager, at (815) 458-2801 extension 2699.

Respectfully,

  
J. D. von Suskil  
Site Vice President  
Braidwood Station

Attachment

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

*Handwritten:* JE25 1/1

**BRAIDWOOD STATION**  
**ANNUAL RADIOLOGICAL**  
**ENVIRONMENTAL OPERATING**  
**REPORT**

**2000**

**APRIL 2001**

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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. Each reactor is designed to have a capacity of 1180 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, Illinois River flow and meteorological data indicate that public dose due to radioactive material attributable to Braidwood Station during the period does not exceed regulatory or Offsite Dose Calculation Manual (ODCM) limits.

The Total Effective Dose Equivalent (TEDE) due to licensed activities at Braidwood Station calculated for the maximally-exposed individual for the period is 1.20E-01 mrem. The annual limit on TEDE is 100 mrem.

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

## 1.0 EFFLUENTS

### 1.1 Gaseous Effluents to the Atmosphere

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

A total of  $9.97\text{E-}01$  curies of fission and activation gases were released with a maximum quarterly average release rate of  $1.86\text{E-}02$   $\mu\text{Ci/sec}$  at Unit 1 and  $1.82\text{E-}02$   $\mu\text{Ci/sec}$  at Unit 2.

A total of  $1.75\text{E-}05$  curies of I-131 were released at a rate of  $8.84\text{E-}07$   $\mu\text{Ci/sec}$  at Unit 1 and  $1.22\text{E-}06$   $\mu\text{Ci/sec}$  at Unit 2.

A total of  $2.89\text{E-}05$  curies of beta-gamma emitters were released as airborne particulate matter with a maximum quarterly average release rate of  $3.40\text{E-}06$   $\mu\text{Ci/sec}$  at Unit 1 and  $8.40\text{E-}08$   $\mu\text{Ci/sec}$  at Unit 2. Alpha-emitting radionuclides totaled  $6.24\text{E-}12$  curies for the year.

A total of  $3.56\text{E+}01$  curies of tritium was released with a maximum quarterly average release rate of  $1.17\text{E+}00$   $\mu\text{Ci/sec}$  at Unit 1 and  $1.22\text{E+}00$   $\mu\text{Ci/sec}$  at Unit 2.

### 1.2 Liquids Released to Kankakee River

A total of  $1.82\text{E+}07$  liters of radioactive liquid waste (prior to dilution) containing  $2.22\text{E+}00$  curies (excluding tritium, noble gases, and alpha) was discharged from the station. These wastes were released at a maximum quarterly average concentration of  $3.68\text{E-}07$   $\mu\text{Ci/ml}$ . No alpha radioactivity was released for the year.  $2.66\text{E+}03$  curies of tritium were 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 Oak Ridge, Tennessee, Barnwell, South Carolina, Erwin, Texas and Richland, Washington. For detail, refer to the Braidwood Station 2000 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  $7.01\text{E-}05$  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  $4.97\text{E-}05$  mrem (Table 3.4-1). The maximum gamma air dose was  $9.35\text{E-}05$  mrad (Table 3.1-1) based on measured effluents and average meteorological data and  $8.62\text{E-}05$  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  $7.0\text{ mg/cm}^2$  and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was  $1.33\text{E-}04$  mrem (Table 3.1-1) based on measured effluents and average meteorological data and  $1.25\text{E-}04$  mrem based on concurrent meteorological data (Table 3.4-1). The maximum offsite beta air dose for the year was  $8.52\text{E-}05$  mrad (Table 3.1-1) based on measured effluents and average meteorological data and  $6.42\text{E-}05$  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  $2.77\text{E-}05 \text{ pCi/m}^3$  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 was  $1.28\text{E-}01 \text{ mrem}$  during the year (Table 3.1-1 [child]).

#### 3.1.3 Concentrations of Particulates in Air

Concentration contours of radioactive airborne particulates are shown in Figure 3.1-4. The maximum annual offsite concentration is estimated to be  $3.89\text{E+}00 \text{ pCi/m}^3$  (Table 3.4-1).

### 3.2 Liquid Effluent Pathways

The three principal pathways through the aquatic environment for potential doses to man from liquid waste are the ingestion of potable water, eating of aquatic foods, and exposure while on the shoreline. Not all of these pathways are significant or applicable at a given time or station but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC developed equations\* were used to calculate the doses to the whole body, lower GI tracts, thyroid, bone, skin; specific parameters for use in the equations are given in the ComEd Offsite Dose Calculation Manual. The maximum whole body dose for the year was  $3.06\text{E-}01 \text{ mrem}$  and no organ dose exceeded  $3.08\text{E-}01 \text{ mrem}$  (Table 3.2-1 [child]).

### 3.3 Assessment of Dose to Member of Public

During the period January to December, 2000, 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:

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\* 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 mrad for gamma radiation or 20 mrad for beta radiation during any calendar year).
- The RETS limits on dose to a member of the public due to iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from each reactor unit (7.5 mrem to any organ during any calendar quarter; 15 mrem to any organ during any calendar year).
- The 10CFR20 limit on Total Effective Dose Equivalent to individual members of the public (100 mrem).

#### 4.0 SITE METEOROLOGY

A summary of the site meteorological measurements taken during each calendar quarter of the year is given in Appendix II. The data are presented as cumulative joint frequency distributions of the wind direction for the 203' level and wind speed class by atmospheric stability class determined from the temperature difference between 199' and 30' levels. Data recovery for these measurements was 99.7% during 2000 (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  $\text{CaSO}_4:\text{Tm}$  thermoluminescent dosimeters (TLDs). Each location consists of 2 TLD sets. The quarterly average external radiation dose for the year was 15.0 mR at the indicator locations and 15.0 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 14.7 mR and was similar to levels measured in 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) and 1999 (13.9 mR). These differences are not statistically significant.

## 5.2 Airborne I-131 and Particulate Radioactivity

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

Gross beta concentrations ranged from 0.012 to 0.058 pCi/m<sup>3</sup> and averaged 0.028 pCi/m<sup>3</sup> and was slightly lower than the average concentration in 1985 (0.028 pCi/m<sup>3</sup>), 1986 (0.034 pCi/m<sup>3</sup>, 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<sup>3</sup>), 1988 (0.031 pCi/m<sup>3</sup>), 1989 (0.028 pCi/m<sup>3</sup>), and similar to 1990 (0.024 pCi/m<sup>3</sup>), 1991 (0.022 pCi/m<sup>3</sup>), 1992 (0.022 pCi/m<sup>3</sup>), 1993 (0.022 pCi/m<sup>3</sup>), 1994 (0.021 pCi/m<sup>3</sup>), 1995 (0.023 pCi/m<sup>3</sup>), 1996 (0.022 pCi/m<sup>3</sup>), 1997 (0.023 pCi/m<sup>3</sup>), 1998 (0.025 pCi/m<sup>3</sup>) and 1999 (0.027 pCi/m<sup>3</sup>).

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 September and analyzed for gamma-emitting nuclides. In addition, broad leaf vegetables were analyzed for I-131. I-131 and gamma-emitting nuclides were below the limits of detection indicating that there was no measurable amount of radioactivity attributable to the station releases.

## 5.4 Aquatic Radioactivity

Well water was collected quarterly from one nearsite well (BD-13) and four farsite wells (BD-34, BD-35, BD-36, BD-37) and was analyzed for tritium and gamma-emitting nuclides. Tritium levels at BD-13, BD-35 and BD-37 remained below the LLD level of 200 pCi/L. Tritium activity at BD-34 averaged 463 pCi/L with a second quarter high of 541 pCi/L. Tritium levels at BD-36 averaged 479 pCi/L with a third quarter high of 526 pCi/L. All gamma-emitters were below the limits of detection. 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 3.9 pCi/L with a range of 1.3-6.1 pCi/L; concentrations at BD-25 averaged 4.8 pCi/L with a range of 2.5-8.8 pCi/L. Gross beta concentrations at BD-22 averaged 3.7 pCi/L with a range of 2.3-9.9 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 averaged 499 pCi/L with a range of 149-1,484 pCi/L. Tritium concentrations in public water samples (BD-22) averaged 1,404 pCi/L with a range of 109-4,176 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 1999. One sample result, however, indicated Co-58 above the lower limit of detection at BD-41 (0.11 pCi/g) and is attributable to plant operation.

Levels of gamma radioactivity in fish were measured and two samples indicated Co-58 at 0.23 and 0.13 pCi/g, at or above the lower limit of detection of 0.13pCi/g. These values are attributable to plant operation.

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 1999.

#### 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 2000.

## 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 28, 2000.

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

## 8.0 NEAREST RESIDENCE CENSUS

A census of the nearest residences within a 6.2-mile radius was conducted by A. Lewis on August 20, 2000.

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

## 9.0 INTERLABORATORY COMPARISON PROGRAM RESULTS

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

## 10.0 ERRATA DATA

Errata data, if any, is presented in Appendix V. There is no errata data for 2000.

## APPENDIX I

### DATA TABLES AND FIGURES

Table 1.1-1

BRAIDWOOD NUCLEAR POWER STATION  
ANNUAL EFFLUENT REPORT FOR 2000  
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	1.41E-01	1.46E-01	7.40E-02	8.45E-02	4.46E-01
2. Average Release Rate	uCi/sec	1.81E-02	1.86E-02	9.31E-03	1.01E-02	5.61E-02

**B. Iodine Releases**

1. Total I-131 Activity	Ci	5.04E-07	2.50E-07	<LLD	7.03E-06	7.78E-06
2. Average Release Rate	uCi/sec	6.48E-08	3.18E-08	<LLD	8.84E-07	9.81E-07

**C. Particulate (> 8 day half-life) Releases**

1. Gross Activity	Ci	1.12E-11	<LLD	1.16E-06	2.70E-05	2.82E-05
2. Average Release Rate	uCi/sec	1.44E-12	<LLD	1.46E-07	3.40E-06	3.55E-06
3. Gross Alpha Activity	Ci	<LLD	<LLD	3.74E-12	<LLD	3.74E-12

**D. Tritium Releases**

1. Total Release Activity	Ci	2.99E+00	9.17E+00	4.34E+00	7.74E-01	1.73E+01
2. Average Release Rate	uCi/sec	3.85E-01	1.17E+00	5.46E-01	9.75E-02	2.20E+00

**E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.**

1. Total Release Activity	Ci	5.28E+00	1.83E+01	8.57E+00	1.41E+00	3.36E+01
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Note: LLD Values are included in Appendix A of this report.

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

Table 1.1-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION  
ANNUAL EFFLUENT REPORT FOR 2000  
GAS RELEASES  
UNIT 2 (Docket Number 50-457)  
SUMMATION OF ALL RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
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**A. Fission and Activation Gas Releases**

1. Total Release Activity	Ci	1.01E-01	1.18E-01	1.31E-01	2.01E-01	5.51E-01
2. Average Release Rate	uCi/sec	1.30E-02	1.50E-02	1.65E-02	1.82E-02	6.27E-02

**B. Iodine Releases**

1. Total I-131 Activity	Ci	9.45E-06	<LLD	8.67E-08	1.44E-07	9.68E-06
2. Average Release Rate	uCi/sec	1.22E-06	<LLD	1.09E-08	1.81E-08	1.25E-06

**C. Particulate (> 8 day half-life) Releases**

1. Gross Activity	Ci	4.16E-11	<LLD	<LLD	6.68E-07	6.68E-07
2. Average Release Rate	uCi/sec	5.35E-12	<LLD	<LLD	8.40E-08	8.40E-08
3. Gross Alpha Activity	Ci	<LLD	2.50E-12	<LLD	<LLD	2.50E-12

**D. Tritium Releases**

1. Total Release Activity	Ci	9.49E+00	4.41E+00	2.82E+00	1.60E+00	1.83E+01
2. Average Release Rate	uCi/sec	1.22E+00	5.61E-01	3.56E-01	2.01E-01	2.34E+00

**E. Sum of Iodine, Particulate (> 8 day half-life), and Tritium Releases.**

1. Total Release Activity	Ci	9.49E+00	4.41E+00	2.83E+00	1.60E+00	1.83E+01
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Note: LLD Values are included in Appendix A of this report.

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



Table 1.2-1

BRAIDWOOD NUCLEAR POWER STATION  
ANNUAL EFFLUENT REPORT FOR 2000  
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	9.95E-01	6.10E-02	1.71E-02	3.83E-02	1.11E+00
2. Average Concentration Released	uCi/ml	3.68E-07	1.93E-08	5.77E-09	1.38E-08	9.56E-08

**B. Tritium**

1. Total Activity Released	Ci	3.48E+02	4.96E+02	2.69E+02	2.13E+02	1.33E+03
2. Average Concentration Released	uCi/ml	1.29E-04	1.57E-04	9.08E-05	7.66E-05	1.15E-04
3. % of Limit (1E-3 uCi/ml)	%	1.29E+01	1.57E+01	9.08E+00	7.66E+00	1.15E+01

**C. Dissolved Noble Gases**

1. Total Activity Released	Ci	7.05E-03	3.91E-04	2.86E-04	2.23E-03	9.96E-03
2. Average Concentration Released	uCi/ml	2.61E-09	1.24E-10	9.66E-11	8.02E-10	8.58E-10
3. % of Limit (2E-4 uCi/ml)	%	1.31E-03	6.20E-05	4.83E-05	4.01E-04	4.29E-04

**D. Gross Alpha**

1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	0.00E+00
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	0.00E+00

**E. Volume of Releases**

1. Volume of Liquid Waste to Discharge	liters	2.38E+06	2.39E+06	2.08E+06	2.24E+06	9.09E+06
2. Volume of Dilution Water	liters	2.70E+09	3.16E+09	2.96E+09	2.78E+09	1.16E+10

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

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

Table 1.2-1 (continued)

BRAIDWOOD NUCLEAR POWER STATION  
ANNUAL EFFLUENT REPORT FOR 2000  
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	9.95E-01	6.10E-02	1.71E-02	3.83E-02	1.11E+00
2. Average Concentration Released	uCi/ml	3.68E-07	1.93E-08	5.77E-09	1.38E-08	9.56E-08

**B. Tritium**

1. Total Activity Released	Ci	3.48E+02	4.96E+02	2.69E+02	2.13E+02	1.33E+03
2. Average Concentration Released	uCi/ml	1.29E-04	1.57E-04	9.08E-05	7.66E-05	1.15E-04
3. % of Limit (1E-3 uCi/ml)	%	1.29E+01	1.57E+01	9.08E+00	7.66E+00	1.15E+01

**C. Dissolved Noble Gases**

1. Total Activity Released	Ci	7.05E-03	3.91E-04	2.86E-04	2.23E-03	9.96E-03
2. Average Concentration Released	uCi/ml	2.61E-09	1.24E-10	9.66E-11	8.02E-10	8.58E-10
3. % of Limit (2E-4 uCi/ml)	%	1.31E-03	6.20E-05	4.83E-05	4.01E-04	4.29E-04

**D. Gross Alpha**

1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	0.00E+00
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	0.00E+00

**E. Volume of Releases**

1. Volume of Liquid Waste to Discharge	liters	2.38E+06	2.39E+06	2.08E+06	2.24E+06	9.09E+06
2. Volume of Dilution Water	liters	2.70E+09	3.16E+09	2.96E+09	2.78E+09	1.16E+10

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

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

Figure 3.1-1

Estimated Cumulative Gamma Dose (in mrem)  
from the Braidwood Station for the period  
January-December 2000

Isopleth Labels

Small figure - multiply by  $10^{-7}$

Large figure - multiply by  $10^{-7}$

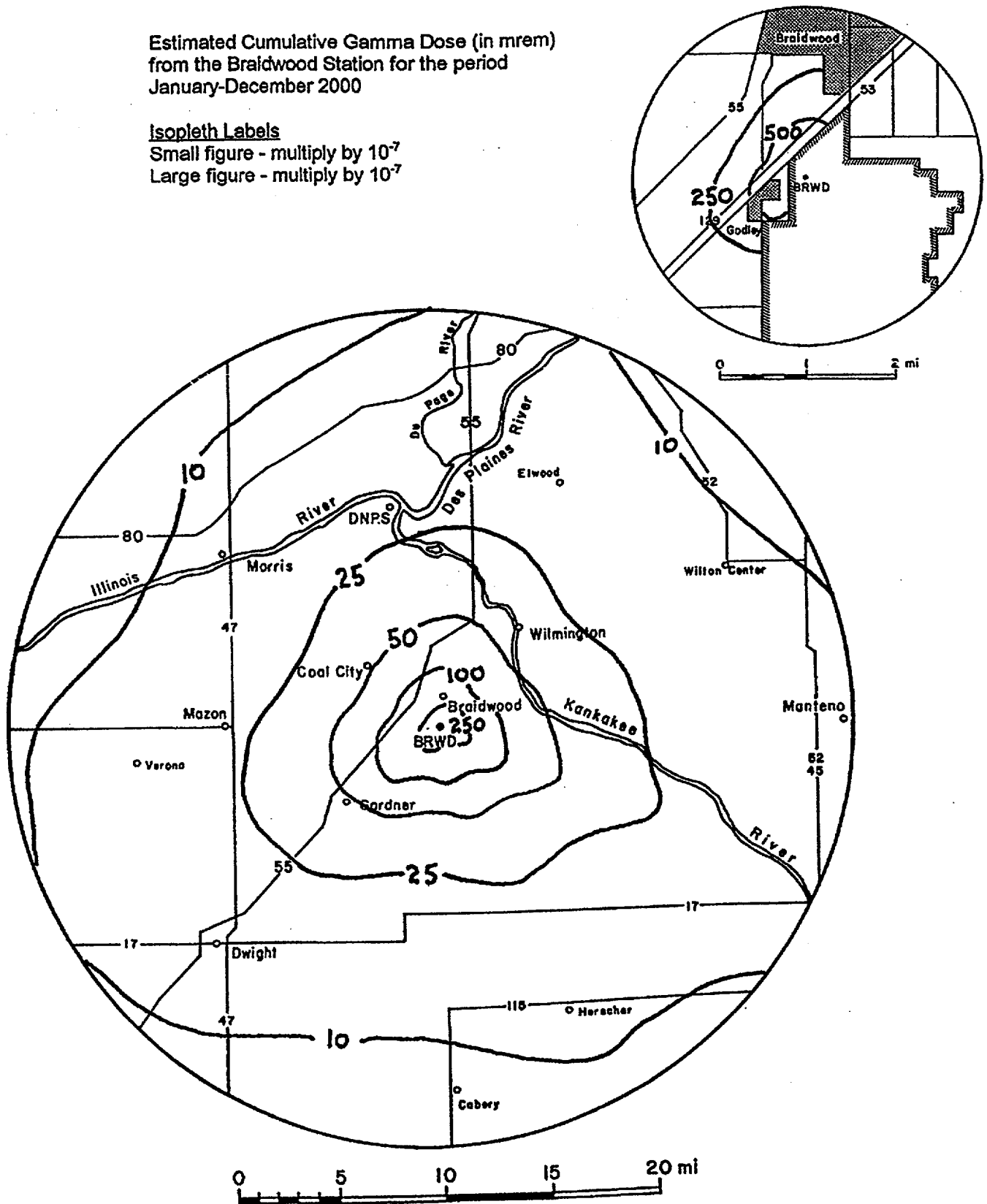


Figure 3.1-2

Estimated Total Concentrations (in pCi/m<sup>3</sup>)  
of Noble Gases from the Braidwood Station  
for the period January-December 2000

Isopleth Labels

Small figure - multiply by 10<sup>-3</sup>

Large figure - multiply by 10<sup>-4</sup>

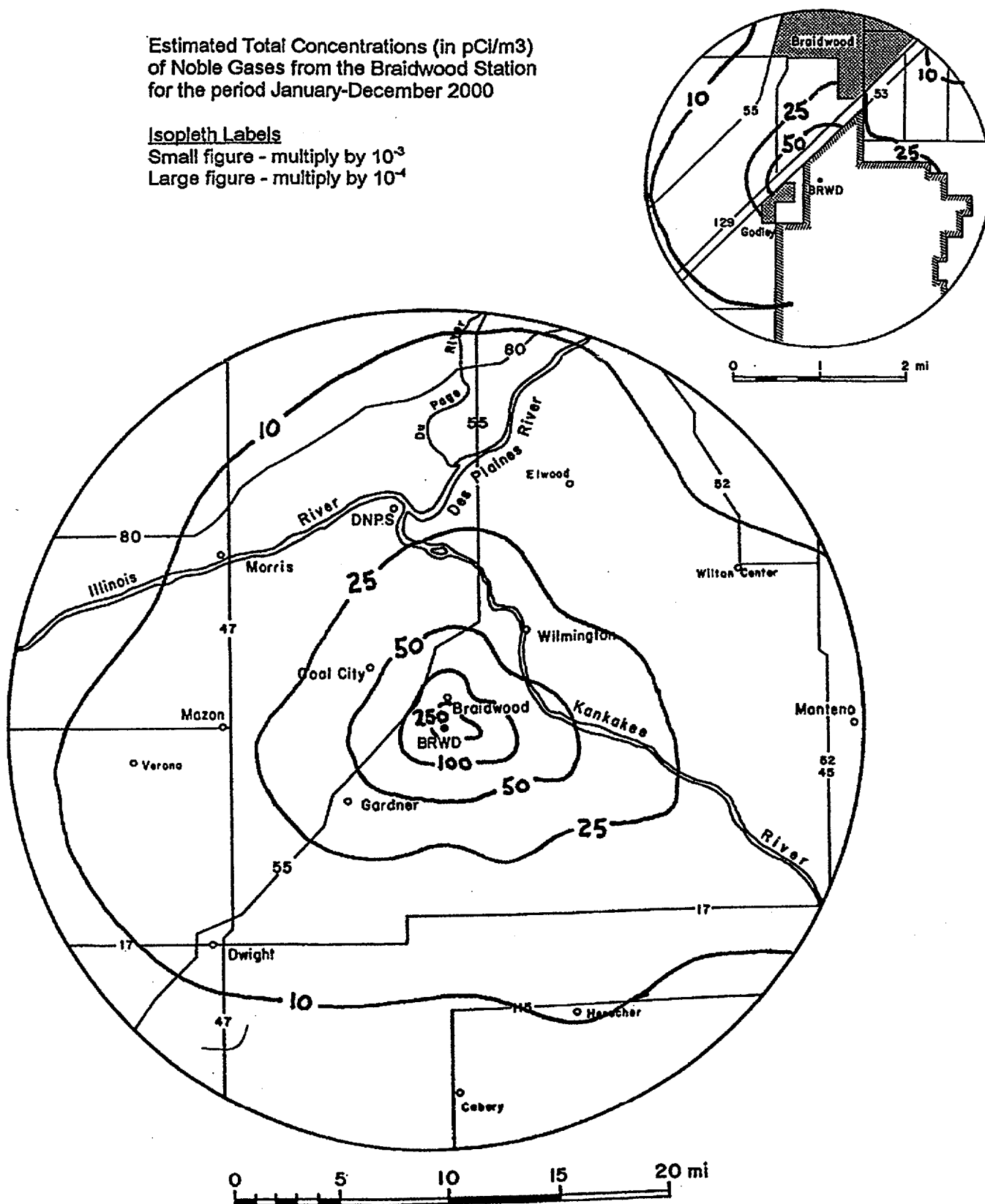


Figure 3.1-3

Estimated Total Concentrations (in pCi/m<sup>3</sup>)  
of Iodines from the Braidwood Station for  
the period January-December 2000

Isopleth Labels

Small figure - multiply by  $10^{-7}$

Large figure - multiply by  $10^{-5}$

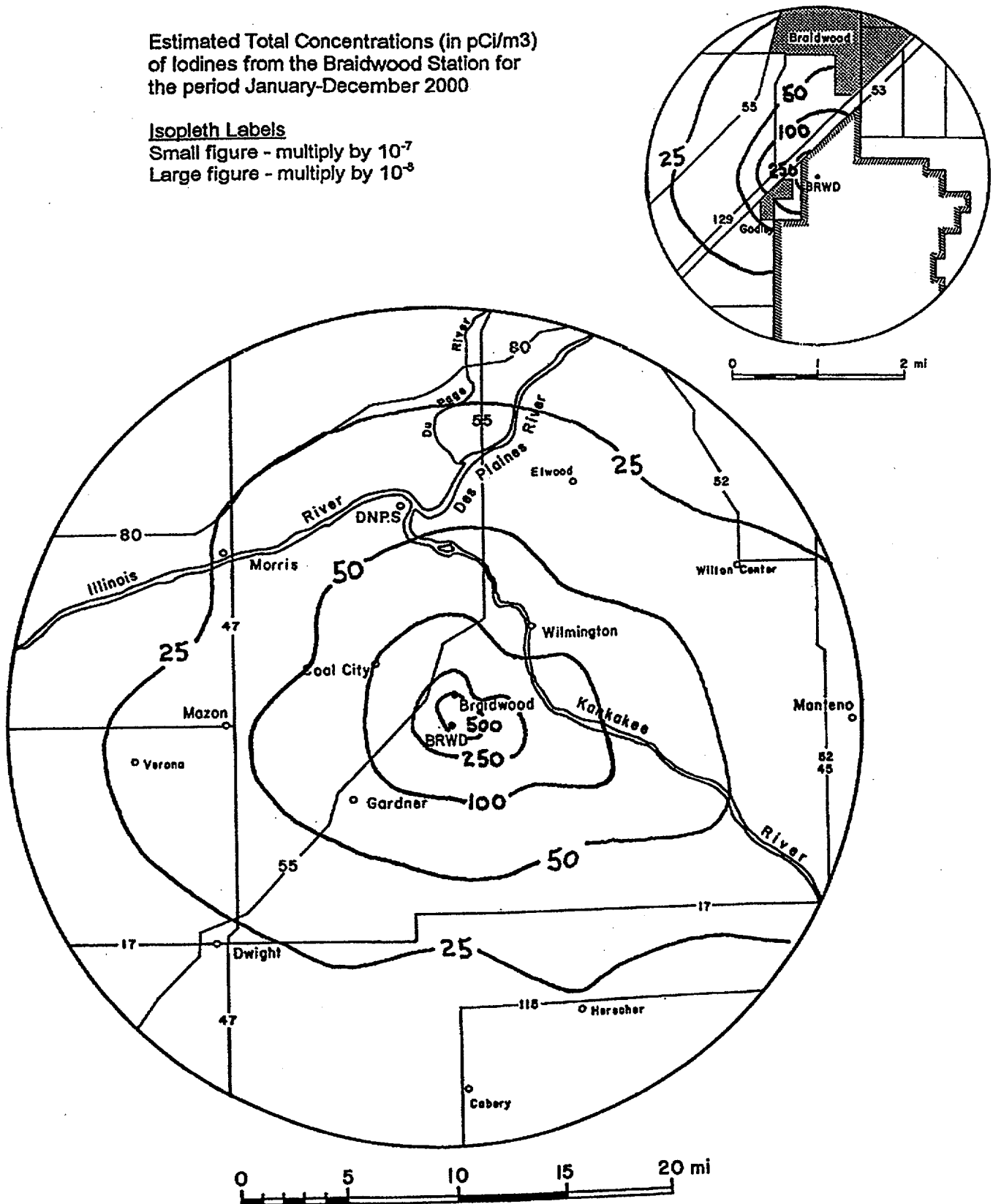


Figure 3.1-4

Estimated Total Concentrations (in pCi/m<sup>3</sup>)  
of Particulates from the Braidwood Station  
for the period January-December 2000

Isopleth Labels

Small figure - multiply by 10<sup>-2</sup>

Large figure - multiply by 10<sup>-3</sup>

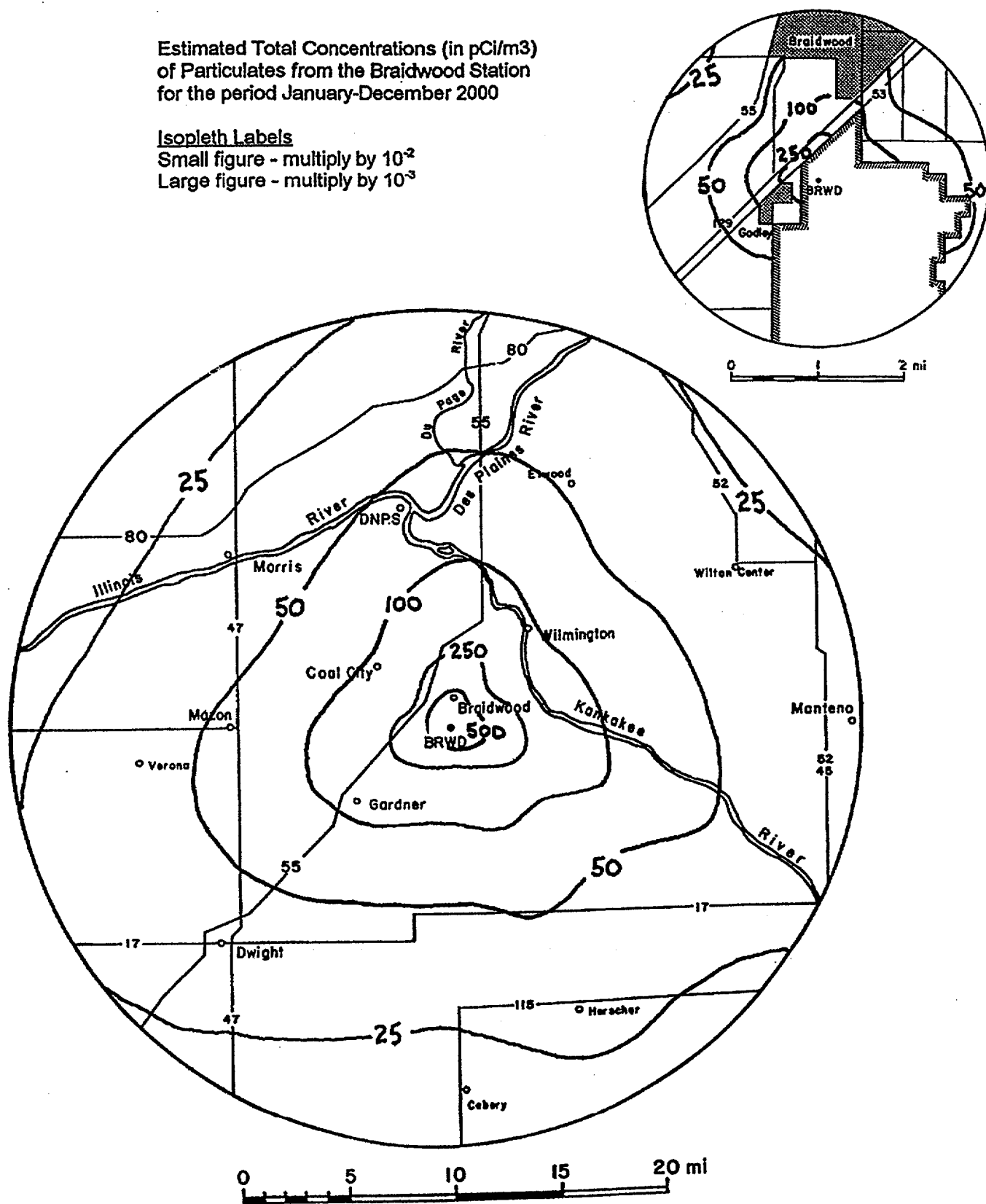


Table 3.1-1

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.41E-05 (N )	1.04E-05 (N )	1.09E-05 (N )	1.13E-05 (N )	4.67E-05 (N )
BETA AIR (MRAD)	1.22E-05 (N )	1.04E-05 (N )	8.22E-06 (N )	1.07E-05 (N )	4.15E-05 (N )
TOT. BODY (MREM)	1.06E-05 (N )	7.75E-06 (N )	8.19E-06 (N )	8.49E-06 (N )	3.50E-05 (N )
SKIN (MREM)	1.98E-05 (N )	1.48E-05 (N )	1.50E-05 (N )	1.62E-05 (N )	6.59E-05 (N )
ORGAN (MREM)	5.60E-04 (N )	1.72E-03 (N )	8.17E-04 (N )	1.78E-04 (N )	3.28E-03 (N )
	THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
INFANT RECEPTOR

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

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
ODCM SOFTWARE VERSION 1.1 January 1995  
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.41E-05 (N )	1.04E-05 (N )	1.09E-05 (N )	1.13E-05 (N )	4.67E-05 (N )
BETA AIR (MRAD)	1.22E-05 (N )	1.04E-05 (N )	8.22E-06 (N )	1.07E-05 (N )	4.15E-05 (N )
TOT. BODY (MREM)	1.06E-05 (N )	7.75E-06 (N )	8.19E-06 (N )	8.49E-06 (N )	3.50E-05 (N )
SKIN (MREM)	1.98E-05 (N )	1.48E-05 (N )	1.50E-05 (N )	1.62E-05 (N )	6.59E-05 (N )
ORGAN (MREM)	5.95E-04 (N )	4.79E-02 (N )	3.21E-02 (N )	3.77E-03 (N )	8.44E-02 (N )
	THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
CHILD RECEPTOR

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.01	0.64	0.43	0.05	15.0	0.56
		THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID		THYROID

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
ODCM SOFTWARE VERSION 1.1 January 1995  
ODCM DATABASE VERSION 1.1 January 1995



Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01

TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.41E-05 (N )	1.04E-05 (N )	1.09E-05 (N )	1.13E-05 (N )	4.67E-05 (N )
BETA AIR (MRAD)	1.22E-05 (N )	1.04E-05 (N )	8.22E-06 (N )	1.07E-05 (N )	4.15E-05 (N )
TOT. BODY (MREM)	1.06E-05 (N )	7.75E-06 (N )	8.19E-06 (N )	8.49E-06 (N )	3.50E-05 (N )
SKIN (MREM)	1.98E-05 (N )	1.48E-05 (N )	1.50E-05 (N )	1.62E-05 (N )	6.59E-05 (N )
ORGAN (MREM)	4.68E-04 (N )	3.12E-02 (N )	2.08E-02 (N )	2.46E-03 (N )	5.50E-02 (N )
	THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
TEENAGER RECEPTOR

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.01	0.42	0.28	0.03	15.0	0.37
		THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID		THYROID

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.41E-05 (N )	1.04E-05 (N )	1.09E-05 (N )	1.13E-05 (N )	4.67E-05 (N )
BETA AIR (MRAD)	1.22E-05 (N )	1.04E-05 (N )	8.22E-06 (N )	1.07E-05 (N )	4.15E-05 (N )
TOT. BODY (MREM)	1.06E-05 (N )	7.75E-06 (N )	8.19E-06 (N )	8.49E-06 (N )	3.50E-05 (N )
SKIN (MREM)	1.98E-05 (N )	1.48E-05 (N )	1.50E-05 (N )	1.62E-05 (N )	6.59E-05 (N )
ORGAN (MREM)	6.06E-04 (NE )	2.76E-02 (N )	1.83E-02 (N )	2.20E-03 (N )	4.86E-02 (N )
	THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
ADULT RECEPTOR

----- % OF APP I. -----							
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.01	0.37	0.24	0.03	15.0	0.32
		THYROID	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID		THYROID

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
ODCM SOFTWARE VERSION 1.1 January 1995  
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	9.91E-06	1.26E-05	1.41E-05	1.02E-05	4.68E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
BETA AIR	8.67E-06	1.07E-05	1.19E-05	1.24E-05	4.37E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
TOT. BODY	7.43E-06	9.48E-06	1.06E-05	7.57E-06	3.51E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
SKIN	1.40E-05	1.77E-05	1.98E-05	1.52E-05	6.66E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
ORGAN	1.78E-03	8.26E-04	5.35E-04	3.00E-04	3.44E-03
(MREM)	(N )	(N )	(N )	(N )	(N )
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
INFANT RECEPTOR

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

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

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	9.91E-06	1.26E-05	1.41E-05	1.02E-05	4.68E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
BETA AIR	8.67E-06	1.07E-05	1.19E-05	1.24E-05	4.37E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
TOT. BODY	7.43E-06	9.48E-06	1.06E-05	7.57E-06	3.51E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
SKIN	1.40E-05	1.77E-05	1.98E-05	1.52E-05	6.66E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
ORGAN	1.89E-03	2.00E-02	2.09E-02	5.13E-04	4.33E-02
(MREM)	(N )	(N )	(N )	(N )	(N )
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
 CHILD RECEPTOR

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.03	0.27	0.28	0.01	15.0	0.29
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	9.91E-06 (N )	1.26E-05 (N )	1.41E-05 (N )	1.02E-05 (N )	4.68E-05 (N )
BETA AIR (MRAD)	8.67E-06 (N )	1.07E-05 (N )	1.19E-05 (N )	1.24E-05 (N )	4.37E-05 (N )
TOT. BODY (MREM)	7.43E-06 (N )	9.48E-06 (N )	1.06E-05 (N )	7.57E-06 (N )	3.51E-05 (N )
SKIN (MREM)	1.40E-05 (N )	1.77E-05 (N )	1.98E-05 (N )	1.52E-05 (N )	6.66E-05 (N )
ORGAN (MREM)	1.49E-03 (N )	1.31E-02 (N )	1.36E-02 (N )	3.76E-04 (N )	2.85E-02 (N )

THYROID	LIVER	THYROID	THYROID	THYROID
	THYROID			
	KIDNEY			
	LUNG			
	GI_LLI			

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
TEENAGER RECEPTOR

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.02	0.17	0.18	0.01	15.0	0.19

THYROID	LIVER	THYROID	THYROID	THYROID
	THYROID			
	KIDNEY			
	LUNG			
	GI_LLI			

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01

ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	9.91E-06	1.26E-05	1.41E-05	1.02E-05	4.68E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
BETA AIR	8.67E-06	1.07E-05	1.19E-05	1.24E-05	4.37E-05
(MRAD)	(N )	(N )	(N )	(N )	(N )
TOT. BODY	7.43E-06	9.48E-06	1.06E-05	7.57E-06	3.51E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
SKIN	1.40E-05	1.77E-05	1.98E-05	1.52E-05	6.66E-05
(MREM)	(N )	(N )	(N )	(N )	(N )
ORGAN	1.92E-03	1.15E-02	1.20E-02	3.80E-04	2.55E-02
(MREM)	(NE )	(N )	(N )	(N )	(N )
	THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
ADULT RECEPTOR

----- % OF APP I. -----							
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.03	0.15	0.16	0.01	15.0	0.17
		THYROID	LIVER THYROID KIDNEY LUNG GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON:

ODCM ANNEX REVISION 2 DECEMBER 1996  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	3.99E-02	5.68E-02	3.07E-02	2.45E-02	1.52E-01
INTERNAL ORGAN	3.99E-02	5.68E-02	3.07E-02	2.45E-02	1.52E-01
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

	----- % OF APP I. -----						
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	2.66	3.78	2.05	1.63	3.0	5.06
CRIT. ORGAN (MREM)	5.0	0.80	1.14	0.61	0.49	10.0	1.52
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.03E-02	5.73E-02	3.10E-02	2.48E-02	1.53E-01
BODY					
INTERNAL	4.06E-02	5.76E-02	3.10E-02	2.51E-02	1.54E-01
ORGAN					
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	2.69	3.82	2.07	1.65	3.0	5.11
CRIT. ORGAN (MREM)	5.0	0.81	1.15	0.62	0.50	10.0	1.54
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

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



Table 3.2-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	2.13E-02	3.00E-02	1.63E-02	1.30E-02	8.05E-02
BODY					
INTERNAL	2.15E-02	3.08E-02	1.63E-02	1.38E-02	8.23E-02
ORGAN					
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----							
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	1.42	2.00	1.08	0.86	3.0	2.68
CRIT. ORGAN (MREM)	5.0	0.43	0.62	0.33	0.28	10.0	0.82
		LIVER	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

## BRAIDWOOD STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	1.55E-02	2.17E-02	1.18E-02	9.35E-03	5.83E-02
BODY					
INTERNAL	1.56E-02	2.26E-02	1.18E-02	1.02E-02	6.02E-02
ORGAN					
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	1.03	1.44	0.78	0.62	3.0	1.94
CRIT. ORGAN (MREM)	5.0	0.31	0.45	0.24	0.20	10.0	0.60
		LIVER	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	3.99E-02	5.68E-02	3.07E-02	2.45E-02	1.52E-01
BODY					
INTERNAL	3.99E-02	5.68E-02	3.07E-02	2.45E-02	1.52E-01
ORGAN					
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	2.66	3.78	2.05	1.63	3.0	5.06
CRIT. ORGAN (MREM)	5.0	0.80	1.14	0.61	0.49	10.0	1.52
		LIVER	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	4.03E-02	5.73E-02	3.10E-02	2.48E-02	1.53E-01
BODY					
INTERNAL	4.06E-02	5.76E-02	3.10E-02	2.51E-02	1.54E-01
ORGAN					
	LIVER	GI_LLI	LIVER	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----							
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	2.69	3.82	2.07	1.65	3.0	5.11
CRIT. ORGAN (MREM)	5.0	0.81	1.15	0.62	0.50	10.0	1.54
		LIVER	GI_LLI	LIVER	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

BRAIDWOOD STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	2.13E-02	3.00E-02	1.63E-02	1.30E-02	8.05E-02
BODY					
INTERNAL	2.15E-02	3.08E-02	1.63E-02	1.38E-02	8.23E-02
ORGAN					
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10 CFR 50 APP. I

	----- % OF APP I. -----						
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	1.42	2.00	1.08	0.86	3.0	2.68
CRIT. ORGAN (MREM)	5.0	0.43	0.62	0.33	0.28	10.0	0.82
		LIVER	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.2-1 (continued)

## BRAIDWOOD STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/19/01  
 ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	1.55E-02	2.17E-02	1.18E-02	9.35E-03	5.83E-02
BODY					
INTERNAL	1.56E-02	2.26E-02	1.18E-02	1.02E-02	6.02E-02
ORGAN					
	LIVER	GI_LLI	GI_LLI	GI_LLI	GI_LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

## COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	1.03	1.44	0.78	0.62	3.0	1.94
CRIT. ORGAN (MREM)	5.0	0.31	0.45	0.24	0.20	1.0.0	0.60
		LIVER	GI_LLI	GI_LLI	GI_LLI		GI_LLI

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

Table 3.3-1

BRAIDWOOD STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/19/01

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

Total Effective Dose Equivalent, mrem/yr	<u>6.71E-02</u>
10 CFR 20.1301 (a)(1) limit	<u>100.0</u>
% of limit	<u>0.07</u>

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	1.02E-02	3.07E-02	1.86E-02	7.58E-03	0.07

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

Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/19/01

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	<u>3.50E-05</u>		
	Skyshine	<u>0.00E+00</u>		
	Ground	<u>1.51E-06</u>		
	Total	<u>3.65E-05</u>	<u>25.0</u>	<u>0.00</u>
Organ Dose (CDE)	Thyroid	<u>6.65E-02</u>	<u>75.0</u>	<u>0.09</u>
	Gonads	<u>6.70E-02</u>	<u>25.0</u>	<u>0.27</u>
	Breast	<u>6.65E-02</u>	<u>25.0</u>	<u>0.27</u>
	Lung	<u>6.65E-02</u>	<u>25.0</u>	<u>0.27</u>
	Marrow	<u>6.67E-02</u>	<u>25.0</u>	<u>0.27</u>
	Bone	<u>6.76E-02</u>	<u>25.0</u>	<u>0.27</u>
	Remainder	<u>6.79E-02</u>	<u>25.0</u>	<u>0.27</u>
	CEDE	<u>6.71E-02</u>		
	TEDE	<u>6.71E-02</u>	<u>100.0</u>	<u>0.07</u>

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



Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/19/01

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

Total Effective Dose Equivalent, mrem/yr	<u>5.31E-02</u>
10 CFR 20.1301 (a) (1) limit	<u>mrem/yr 100.0</u>
% of limit	<u>0.05</u>

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	1.12E-02	2.07E-02	1.47E-02	6.58E-03	0.05

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

Table 3.3-1 (continued)

BRAIDWOOD STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

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

CALCULATED 04/19/01

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	<u>3.51E-05</u>		
	Skyshine	<u>0.00E+00</u>		
	Ground	<u>1.28E-07</u>		
	Total	<u>3.52E-05</u>	<u>25.0</u>	<u>0.00</u>
Organ Dose (CDE)	Thyroid	<u>5.24E-02</u>	<u>75.0</u>	<u>0.07</u>
	Gonads	<u>5.30E-02</u>	<u>25.0</u>	<u>0.21</u>
	Breast	<u>5.25E-02</u>	<u>25.0</u>	<u>0.21</u>
	Lung	<u>5.25E-02</u>	<u>25.0</u>	<u>0.21</u>
	Marrow	<u>5.27E-02</u>	<u>25.0</u>	<u>0.21</u>
	Bone	<u>5.36E-02</u>	<u>25.0</u>	<u>0.21</u>
	Remainder	<u>5.39E-02</u>	<u>25.0</u>	<u>0.22</u>
	CEDE	<u>5.31E-02</u>		
	TEDE	<u>5.31E-02</u>	<u>100.0</u>	<u>0.05</u>

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

Table 3.4-1

## BRAIDWOOD STATION - UNIT 1

## MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE: October 1 - December 31      YEAR: 2000

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	1.090E-05(ENE)	1.090E-05(ENE)	1.420E-05(WSW)	1.030E-05( N )	1.470E-05( N )	4.293E-05( N )
BETA AIR (mrad)	8.470E-06( NW)	8.470E-06( NW)	9.830E-06( W )	8.330E-06(NNW)	1.110E-05(NNW)	3.081E-05( N )
WHOLE BODY (mrem)	6.030E-06( NW)	6.030E-06( NW)	8.490E-06( SW)	6.120E-06( SW)	7.300E-06( N )	2.396E-05( SW)
SKIN (mrem)	1.480E-05( NW)	1.480E-05( NW)	2.060E-05( SW)	1.540E-05( SW)	1.830E-05( W )	6.090E-05( W )
ORGAN (mrem)	3.550E-05( NW)	3.550E-05( NW)	2.360E-04( W )	3.370E-04(NNW)	1.260E-04(NNW)	6.201E-04( N )
CRITICAL PERS-ORG	TA-LN	TA-LN	TA-LV	TA-LV	TA-TH	TA-LN

## COMPLIANCE STATUS

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

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

Date of calculation: 4/17/2001

Table 3.4-1 (continued)

BRAIDWOOD STATION - UNIT 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE: October 1 - December 31

YEAR: 2000

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	9.740E-06(ENE)	9.740E-06(ENE)	1.820E-05(WSW)	1.260E-05( N )	1.030E-05( N )	4.331E-05( N )
BETA AIR (mrad)	9.830E-06( NW)	9.830E-06( NW)	1.380E-05( W )	8.550E-06(NNW)	7.880E-06(NNW)	3.336E-05( W )
WHOLE BODY (mrem)	5.090E-06( NW)	5.090E-06( NW)	1.090E-05( SW)	7.540E-06( SW)	5.210E-06( N )	2.576E-05( SW)
SKIN (mrem)	1.320E-05( NW)	1.320E-05( NW)	2.660E-05( SW)	1.880E-05( SW)	1.290E-05( W )	6.419E-05( SW)
ORGAN (mrem)	5.890E-05( NW)	5.890E-05( NW)	1.560E-04( W )	1.620E-04(NNW)	4.030E-04(NNW)	6.881E-04(NNW)
CRITICAL PERS-ORG	TA-TH	TA-TH	TA-TH	TA-LV	TA-TH	TA-TH

COMPLIANCE STATUS

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

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

Maximum Offsite  
 Values (pCi/m3)

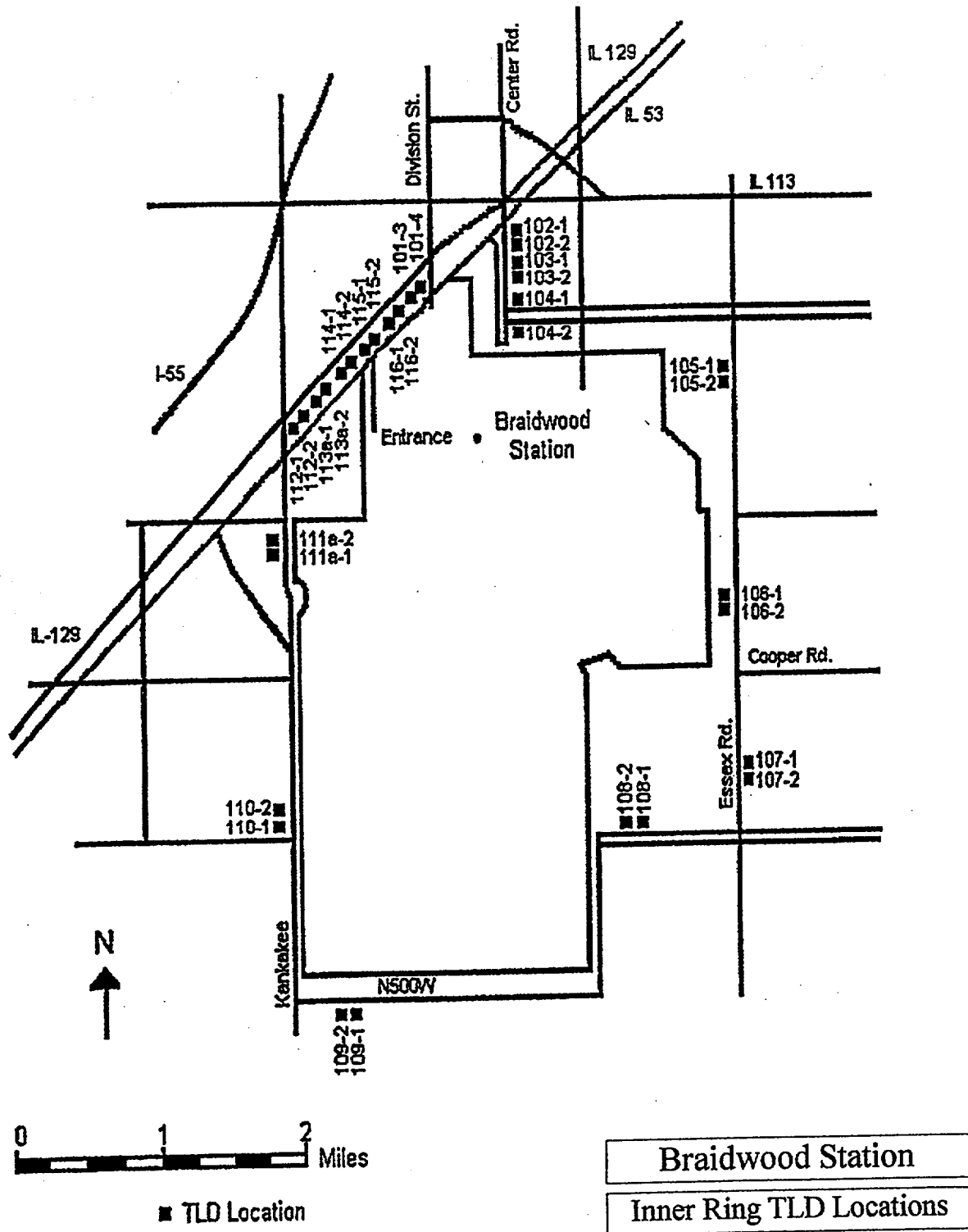
Iodine 2.77E-05  
 Particulate Matter 3.89E+00

Data Recovery 99.7%  
 (priority parameters)

Date of calculation: 4/17/2001

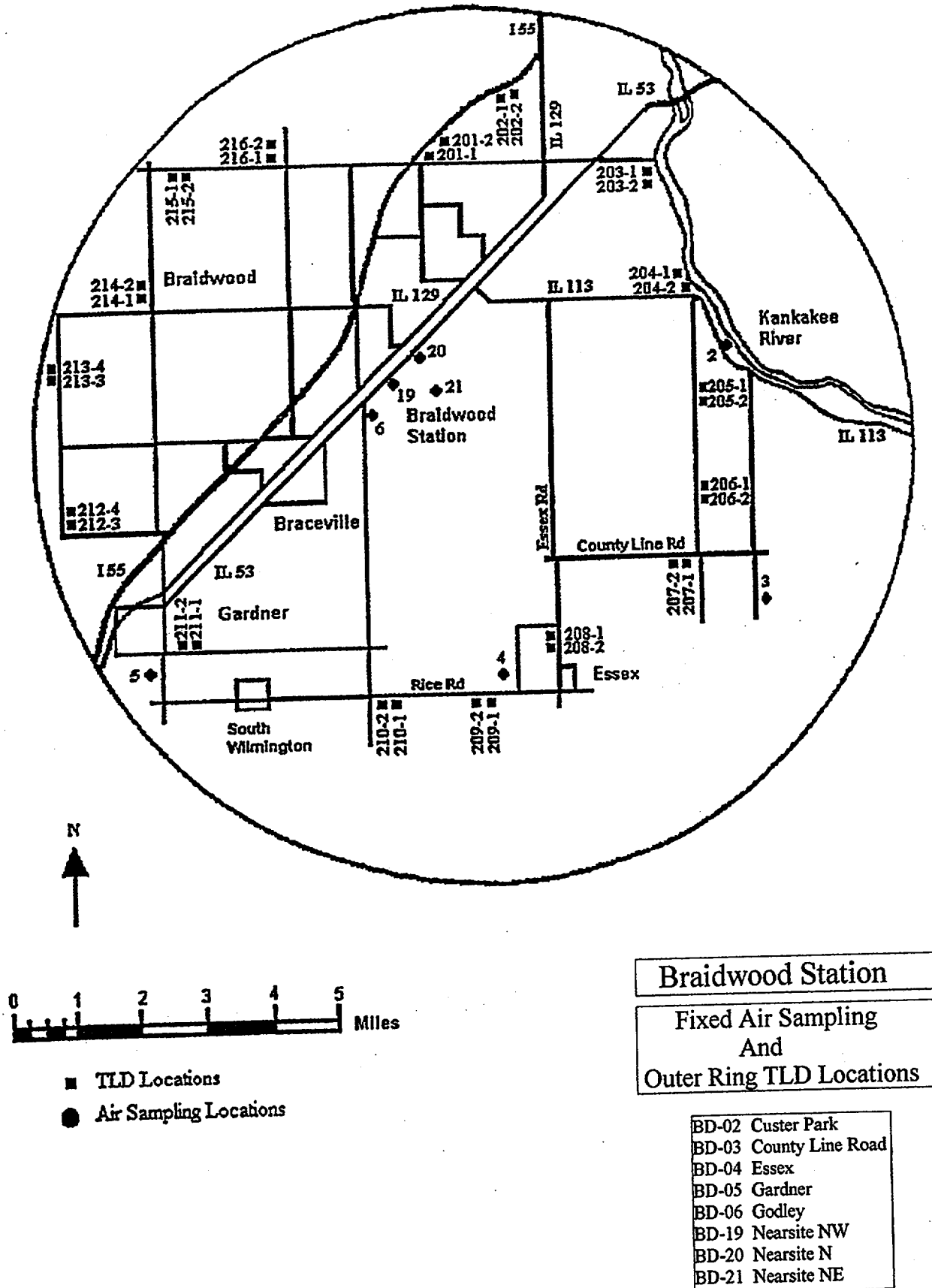
# BRAIDWOOD

Figure 5.0-1



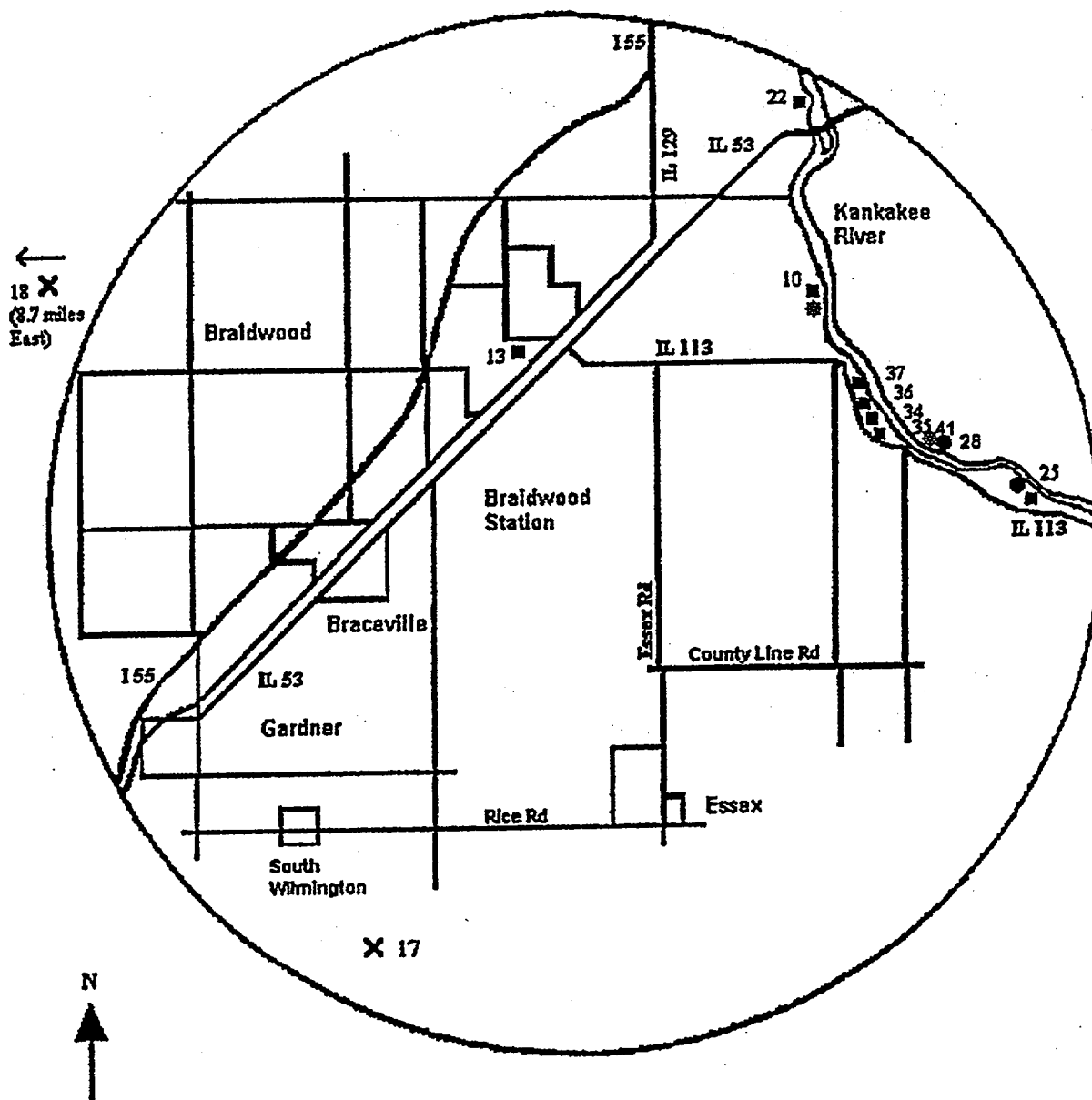
# BRAIDWOOD

Figure 5.0-2



# BRAIDWOOD

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

<b>Braidwood Station</b> <b>Radiological Environmental</b> <b>Monitoring Locations</b>
----------------------------------------------------------------------------------------------

	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

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance</u> <u>(miles)</u>	<u>Direction</u>	<u>Sector</u>
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

<u>Site Code</u>	<u>Distance</u> <u>(miles)</u>	<u>Direction</u>	<u>Sector</u>
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

<sup>a</sup> 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)

<u>Site Code</u> Outer Ring	<u>Distance</u> (miles)	<u>Direction</u>	<u>Sector</u>
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

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance</u> (mile)	<u>Direction</u>	<u>Sector</u>
BD-17	Halpin's Dairy	5.5	SSW	K
BD-18 (C)	Biros Farm	8.7	W	N

4. VEGETABLES

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance</u> (miles)	<u>Direction</u>	<u>Sector</u>
Quad 1	Clark Farm	3.8	ENE	D
Quad 2	Evelyn Hefner	3.5	SE	G
Quad 3	Terri Schultz	4.8	SSW	K
Quad 4	Bruce Sinkular	1.9	NNW	R
Control(C)	Gorman Farm	9.0	NE	C

<sup>a</sup> 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

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

6. GROUND/WELL WATER

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance (miles)</u>	<u>Direction</u>	<u>Sector</u>
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

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance (miles)</u>	<u>Direction</u>	<u>Sector</u>
BD-10	Kankakee River, Downstream	5.4	NE	C
BD-25 (C)	Kankakee River, Upstream	9.6	E	E

8. FISH

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance (miles)</u>	<u>Direction</u>	<u>Sector</u>
BD-25 (C)	Kankakee River, Upstream	9.6	E	E
BD-28	Kankakee River, Discharge	5.4	E	E

9. SEDIMENTS

<u>Site Code</u> <sup>a</sup>	<u>Location</u>	<u>Distance (miles)</u>	<u>Direction</u>	<u>Sector</u>
BD-10	Kankakee River, Downstream	5.4	NE	C
BD-41	Kankakee River, Downstream	5.2	E	E

<sup>a</sup> 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		Collection Frequency	Type of Analysis	Frequency of Analysis
Code <sup>a</sup>	Site				
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			

<sup>a</sup> 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		Collection Frequency	Type of Analysis	Frequency of Analysis
	Code <sup>a</sup>	Site			
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 from each location as available at harvest.	Gamma Isot.	Annually
	Quad 2	W.F. Soltwisch		I-131	Annually, on broad leaf vegetation.
	Quad 3	Terri Schultz			
	Quad 4	Bruce Sinkular			
	Control	Gorman Farm			
7. Public Water	BD-22	Wilmington	Weekly	Gross Beta Gamma Isot. Tritium	Monthly composite. Monthly composite. 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 Gamma Isot. Tritium	Monthly composite. Monthly composite. Quarterly composite.
	BD-25 (C)	Kankakee River, Upstream			
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.

<sup>a</sup> 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		Collection Frequency	Type of Analysis	Frequency of Analysis
	Code <sup>a</sup>	Site			
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.

<sup>a</sup> 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 StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 1st Quarter 2000

(County, State)

(County, State)								
Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results
Air Particulates (pCi/m <sup>3</sup> )	Gross Beta	60	0.01	0.031 (48/48) (0.017-0.044)	BD-06 <sup>b</sup> , Godley 0.5 mi. WSW, Sector M	0.032 (12/12) (0.022-0.044)	0.032 (12/12) (0.018-0.046)	0
	Gamma Spec.	5						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m <sup>3</sup> )	I-131	30	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		15-30	<LLD	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	4.4 (1/3)	BD-25, Kankakee River, Upstream 9.6 mi. E, Sector E	6.6 (2/3) (6.3-7.0)	6.6 (2/3) (6.3-7.0)	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	463 (2/5) (455-471)	BD-36, Hutton Well 4.7 mi. E, Sector E	471 (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

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.<sup>b</sup> Locations BD-03 (C) and BD-06 had identical means of 0.032 pCi/m<sup>3</sup>. Both are detailed in this summary.

Table 5.0-3 (continued)

## RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: Braidwood Nuclear Power StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 1st Quarter 2000

(County, State)

(County, State)								
Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results
Public Water (pCi/L)	Gross Beta	3	4	<LLD	-	-	None	0
	Tritium	3	200	2,924 (3/3) (1,417-4,176)	BD-22, Wilmington 6.0 mi. NE, Sector C	2,924 (3/3) (1,417-4,176)	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	15.2 (78/78) (13.4-19.5)	BD-209-2 <sup>b</sup> 4.8 mi. S, Sector J	19.5 (1/1)	15.4 (2/2) (15.2-15.6)	0

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.<sup>b</sup> Locations BD-209-2 and BD-211-2 had identical means of 19.5 mR. Only BD-209-2 is detailed in this summary.



Table 5.0-4

## RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: Braidwood Nuclear Power StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 2nd Quarter 2000

(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results
Air Particulates (pCi/m <sup>3</sup> )	Gross Beta	70	0.01	0.020 (56/56) (0.014-0.028)	BD-06 <sup>b</sup> , Godley 0.5 mi. WSW, Sector M	0.020 (14/14) (0.015-0.028)	0.019 (14/14) (0.012-0.025)	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 <sup>3</sup> )	I-131	35	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	12	0.5/5.0 <sup>c</sup>	<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		15-30	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec.	11						
	Cs-134		0.10	<LLD	-	-	<LLD	0
	Cs-137		0.10	<LLD	-	-	<LLD	0
	Other ODCM- Required Gammas		0.13-0.26	0.18 (2/2) (0.13-0.23) (Co-58)	BD-28, Kankakee River Discharge 5.4 mi. E, Sector E	0.18 (2/2) (0.13-0.23)	<LLD	0
	Other Gammas		0.20-0.30	<LLD	-	-	<LLD	0
Sediments (pCi/g wet)	Gamma Spec.	2						
	Cs-134		0.15	<LLD	-	-	None	0
	Cs-137		0.18	<LLD	-	-	None	0
	Other Gammas		0.10-0.60	0.11 (1/1) (Co-58)	BD-41, Kankakee River Downstream, 5.2 mi., Sector E	0.11 (1/1)	None	1

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.<sup>b</sup> BD-06, BD-19 and BD-20 had identical means of 0.020 pCi/m<sup>3</sup>. Only BD-06 is detailed in this summary.<sup>c</sup> 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 StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 2nd Quarter 2000

(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results	
Surface Water (pCi/L)	Gross Beta	6	4	<LLD	-	-	<LLD	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	513 (2/5) (484-541)	BD-34, Gibson Well 4.7 mi. E, Sector E	541 (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	1,039 (2/3) (644-1,433)	BD-22, Wilmington 6.0 mi. NE, Sector C	1,039 (2/3) (644-1,433)	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	14.8 (78/78) (12.9-19.6)	BD-201-1 4.2 mi. N, Sector A	19.6 (1/1)	14.8 (2/2) (14.6-15.0)	0

<sup>a</sup> 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 StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 3rd Quarter 2000

(County, State)

(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results
Air Particulates (pCi/m <sup>3</sup> )	Gross Beta	65	0.01	0.024 (51/51) <sup>b</sup> (0.014-0.045)	BD-20, Nearsite N 0.6 mi. N, Sector A	0.026 (12/12) <sup>b</sup> (0.019-0.041)	0.024 (13/13) (0.019-0.035)	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 <sup>3</sup> )	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		15-30	<LLD	-	-	<LLD	0
Vegetation (pCi/g wet)	I-131	5	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	5.3 (3/3) (4.5-6.1)	BD-25, Kankakee River, Upstream 9.6 mi. E, Sector E	5.8 (2/3) (4.3-7.4)	5.8 (2/3) (4.3-7.4)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM- Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	1,484 (1/1)	BD-10, Kankakee River, Downstream 5.4 mi. NE, Sector C	1,484 (1/1)	<LLD	0

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.<sup>b</sup> One result of 0.06 pCi/m<sup>3</sup> not included in quarterly mean; low volume due to tripped circuit breaker.

Table 5.0-5 (continued)

## RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: Braidwood Nuclear Power StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 3rd Quarter 2000

(County, State)

(County, State)								
Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean* Range	Location with Highest Quarterly Mean	Highest Mean* Range	Control Locations Mean* Range	Number of Non-routine Results
Well Water (pCi/L)	Tritium	5	200	512 (2/5) (497-526)	BD-36, Hutton Well 4.7 mi. E, Sector E	526 (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	4.5 (2/3) (4.0-4.9)	BD-22, Wilmington 6.0 mi. NE, Sector C	4.5 (2/3) (4.0-4.9)	None	0
	Tritium	3	200	1,085 (3/3) (252-1,881)	BD-22, Wilmington 6.0 mi. NE, Sector C	1,085 (3/3) (252-1,881)	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	14.4 (78/78) (12.6-18.6)	BD-209-2 4.8 mi. S, Sector J	18.6 (1/1)	14.0 (2/2) (13.5-14.5)	0

\* Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 5.0-6

## RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: Braidwood Nuclear Power StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 4th Quarter 2000

(County, State)

(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean* Range	Location with Highest Quarterly Mean	Highest Mean* Range	Control Locations Mean* Range	Number of Non-routine Results	
Air Particulates (pCi/m <sup>3</sup> )	Gross Beta	65	0.01	0.036 (52/52) (0.019-0.058)	BD-20 <sup>b</sup> , Nearsite N 0.6 mi. N, Sector A	0.036 (13/13) (0.021-0.058)	0.036 (13/13) (0.021-0.057)	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 <sup>3</sup> )	I-131	30	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	8	0.5/5.0 <sup>c</sup>	<LLD	-	-	<LLD	0
	Gamma Spec.	8						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Ba/La-140		15	<LLD	-	-	<LLD	0
	Other Gammas		15-30	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec.	10						
	Cs-134		0.10	<LLD	-	-	<LLD	0
	Cs-137		0.10	<LLD	-	-	<LLD	0
	Other ODCM- Required Gammas		0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas		0.20-0.30	<LLD	-	-	<LLD	0
Sediments (pCi/g wet)	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
Surface Water (pCi/L)	Gross Beta	6	4	5.4 (1/3)	BD-25, Kankakee River, Upstream 9.6 mi. E, Sector E	6.6 (2/3) (4.4-8.8)	6.6 (2/3) (4.4-8.8)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM- Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	200 (1/1)	BD-10, Kankakee River, Downstream 5.4 mi. NE, Sector C	200 (1/1)	<LLD	0

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.<sup>b</sup> Locations BD-03 (C), BD-20 and BD-21 had identical means of 0.036 pCi/m<sup>3</sup>. BD-03 (C) and BD-20 are detailed in this summary.<sup>c</sup> 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 StationDocket No. 50-456, 50-457Location of Facility: Will, IllinoisReporting Period: 4th Quarter 2000

(County, State)

(County, State)								
Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean <sup>a</sup> Range	Location with Highest Quarterly Mean	Highest Mean <sup>a</sup> Range	Control Locations Mean <sup>a</sup> Range	Number of Non-routine Results
Well Water (pCi/L)	Tritium	5	200	398 (2/5) (360-435)	BD-36, Hutton Well 4.7 mi. E, Sector E	435 (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	7.0 (2/3) (4.1-9.9)	BD-22, Wilmington 6.0 mi. NE, Sector C	7.0 (2/3) (4.1-9.9)	None	0
	Tritium	3	200	880 (3/3) (438-1,586)	BD-22, Wilmington 6.0 mi. NE, Sector C	880 (3/3) (438-1,586)	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	15.4 (78/78) (13.9-19.7)	BD-209-2 4.8 mi. S, Sector J	19.7 (1/1)	15.7 (2/2) (15.6-15.7)	0

<sup>a</sup> Mean and range based on detectable measurements only. Fractions indicated in parentheses.

BRAIDWOOD

APPENDIX II

METEOROLOGICAL DATA

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

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

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



BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

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

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	3	1	0	0	5
NNE	0	0	1	0	1	0	2
NE	0	0	1	0	0	0	1
ENE	0	0	2	0	0	0	2
E	0	0	2	0	0	0	2
ESE	0	1	3	0	0	0	4
SE	0	1	2	3	0	0	6
SSE	0	0	0	1	0	0	1
S	0	0	2	0	1	4	7
SSW	0	3	0	1	2	0	6
SW	0	0	0	4	0	0	4
WSW	0	0	1	3	0	0	4
W	0	0	2	1	0	0	3
WNW	0	0	3	1	4	1	9
NW	0	0	5	0	2	0	7
NNW	0	1	1	0	0	0	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	7	28	15	10	5	65

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	9	6	10	1	0	26
NNE	1	4	5	19	3	0	32
NE	0	2	13	16	5	0	36
ENE	0	5	9	9	0	0	23
E	2	6	3	15	1	0	27
ESE	0	2	7	12	3	0	24
SE	0	1	6	3	0	0	10
SSE	0	4	5	5	8	10	32
S	0	14	9	14	20	11	68
SSW	0	4	11	9	16	8	48
SW	0	4	8	17	3	1	33
WSW	0	12	15	18	7	5	57
W	1	6	4	10	7	4	32
WNW	0	5	7	24	22	1	59
NW	0	3	21	12	9	0	45
NNW	0	8	8	22	15	0	53
VARIABLE	0	0	0	0	0	0	0
TOTAL	4	89	137	215	120	40	605

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	3	15	10	1	0	29
NNE	2	2	14	21	5	0	44
NE	0	8	9	16	6	0	39
ENE	2	8	41	14	2	0	67
E	1	8	42	14	0	0	65
ESE	0	6	20	31	1	0	58
SE	3	5	11	11	11	0	41
SSE	2	8	12	23	37	9	91
S	0	6	31	33	49	12	131
SSW	0	2	8	37	74	17	138
SW	3	6	7	27	6	0	49
WSW	0	7	12	36	14	2	71
W	0	3	9	24	10	5	51
WNW	1	7	8	61	33	3	113
NW	1	3	11	26	13	0	54
NNW	0	8	12	26	8	1	55
VARIABLE	0	0	0	0	0	0	0
TOTAL	15	90	262	410	270	49	1096

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	2	5	3	0	0	0	10
NNE	1	2	2	0	0	0	5
NE	0	3	9	0	0	0	12
ENE	0	5	4	0	0	0	9
E	1	4	8	0	0	0	13
ESE	0	2	3	4	0	0	9
SE	2	7	7	4	0	0	20
SSE	0	1	0	0	0	0	1
S	0	1	4	0	0	0	5
SSW	0	4	1	3	0	0	8
SW	1	6	0	7	2	0	16
WSW	0	2	2	7	0	0	11
W	0	6	5	25	0	0	36
WNW	0	1	11	15	0	0	27
NW	0	2	9	7	0	0	18
NNW	2	4	9	7	0	0	22
VARIABLE	0	0	0	0	0	0	0
TOTAL	9	55	77	79	2	0	222

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	1	0	1	0	0	0	2
NNE	1	1	1	0	0	0	3
NE	2	3	1	0	0	0	6
ENE	0	2	0	0	0	0	2
E	3	0	0	0	0	0	3
ESE	3	3	0	2	0	0	8
SE	1	3	3	0	0	0	7
SSE	0	6	1	0	0	0	7
S	1	3	5	0	0	0	9
SSW	2	1	1	0	0	0	4
SW	2	0	0	1	3	0	6
WSW	0	1	0	1	0	0	2
W	2	0	2	11	0	0	15
WNW	1	4	15	19	0	0	39
NW	1	1	9	5	0	0	16
NNW	0	2	0	0	0	0	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	20	30	39	39	3	0	131

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	1	1	0	0	2
NNE	0	0	1	3	0	0	4
NE	0	0	0	3	0	0	3
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	2	0	0	2
SSE	0	0	1	1	1	0	3
S	0	0	1	6	1	0	8
SSW	0	0	1	4	2	0	7
SW	0	0	0	1	0	0	1
WSW	0	0	0	0	0	1	1
W	0	0	0	0	1	0	1
WNW	0	0	0	1	5	0	6
NW	0	0	0	5	2	0	7
NNW	0	0	1	1	3	0	5
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	6	28	15	1	50

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	3	0	0	0	3
NNE	0	2	0	1	0	0	3
NE	0	2	4	1	0	0	7
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	0	0	0	1
SSE	0	0	1	4	1	0	6
S	0	2	2	0	1	0	5
SSW	0	3	3	2	5	0	13
SW	0	1	4	5	0	0	10
WSW	0	0	1	1	0	0	2
W	0	1	0	0	1	0	2
WNW	0	0	2	3	1	0	6
NW	0	0	1	3	1	0	5
NNW	0	0	2	0	1	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	11	24	20	11	0	66

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



# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	2	0	0	0	4
NNE	0	4	1	1	0	0	6
NE	0	4	3	1	1	0	9
ENE	0	1	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	1	0	0	2
SSE	0	2	0	1	0	2	5
S	0	3	3	2	2	1	11
SSW	0	2	3	3	0	0	8
SW	0	4	5	3	0	0	12
WSW	0	2	0	2	1	0	5
W	0	2	0	0	0	0	2
WNW	0	2	1	4	5	2	14
NW	0	0	1	3	2	0	6
NNW	0	1	3	1	1	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	29	23	22	12	5	91

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	2	9	11	6	2	0	30
NNE	1	8	6	22	3	0	40
NE	3	9	9	18	5	0	44
ENE	2	9	12	10	1	0	34
E	2	14	12	2	0	0	30
ESE	2	7	2	1	2	1	15
SE	1	6	7	5	0	0	19
SSE	0	10	4	8	3	0	25
S	1	4	4	9	9	6	33
SSW	3	8	12	15	24	7	69
SW	1	10	24	30	15	5	85
WSW	2	8	8	16	4	0	38
W	1	10	5	14	4	0	34
WNW	1	10	7	9	17	6	50
NW	2	1	4	7	4	1	19
NNW	0	12	10	20	5	0	47
VARIABLE	0	0	0	0	0	0	0
TOTAL	24	135	137	192	98	26	612

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	8	17	7	12	5	49
NNE	1	5	20	18	8	0	52
NE	1	8	42	21	9	0	81
ENE	1	19	31	9	0	0	60
E	1	8	28	7	1	0	45
ESE	1	4	11	18	9	0	43
SE	1	6	11	16	4	0	38
SSE	0	9	21	42	6	0	78
S	1	5	28	68	23	6	131
SSW	0	3	14	63	57	14	151
SW	1	6	23	35	12	2	79
WSW	0	2	27	21	4	1	55
W	1	7	22	10	4	3	47
WNW	1	4	11	15	10	4	45
NW	3	6	18	22	13	0	62
NNW	2	12	11	10	9	2	46
VARIABLE	0	0	0	0	0	0	0
TOTAL	15	112	335	382	181	37	1062

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	3	7	1	0	0	11
NNE	0	0	2	3	0	0	5
NE	1	1	6	3	0	0	11
ENE	2	1	5	1	0	0	9
E	1	1	5	1	0	0	8
ESE	1	1	8	9	0	0	19
SE	0	2	14	8	0	0	24
SSE	0	3	11	4	0	0	18
S	0	3	7	9	0	0	19
SSW	0	4	4	2	0	0	10
SW	0	1	3	4	1	0	9
WSW	1	2	0	4	0	0	7
W	0	4	6	3	0	0	13
WNW	1	0	11	1	0	0	13
NW	0	2	10	2	0	0	14
NNW	0	2	7	0	0	0	9
VARIABLE	1	0	0	0	0	0	1
TOTAL	8	30	106	55	1	0	200

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	6	0	0	0	8
NNE	0	1	2	1	0	0	4
NE	1	3	0	1	0	0	5
ENE	0	2	0	0	0	0	2
E	1	2	0	0	0	0	3
ESE	0	2	1	1	0	0	4
SE	0	0	2	2	0	0	4
SSE	0	1	1	0	0	0	2
S	0	1	0	0	0	0	1
SSW	1	2	1	0	0	0	4
SW	0	4	3	0	0	0	7
WSW	0	4	2	1	0	0	7
W	0	4	1	8	0	0	13
WNW	0	4	9	3	0	0	16
NW	0	6	12	0	0	0	18
NNW	0	1	2	0	0	0	3
VARIABLE	1	0	0	0	0	0	1
TOTAL	4	39	42	17	0	0	102

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	5	0	0	0	5
ENE	0	0	3	0	0	0	3
E	0	1	5	0	0	0	6
ESE	0	0	5	1	0	0	6
SE	0	0	1	0	0	0	1
SSE	0	1	5	0	0	0	6
S	0	1	10	3	0	0	14
SSW	0	1	5	10	0	0	16
SW	0	0	3	1	0	0	4
WSW	0	0	1	0	0	0	1
W	0	1	1	3	0	0	5
WNW	0	0	0	0	0	0	0
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	0	5	45	19	0	0	69

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: 41

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	1	2	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	1	7	1	0	0	9
ENE	0	4	7	0	0	0	11
E	0	4	2	1	0	0	7
ESE	0	0	6	0	0	0	6
SE	0	3	4	2	0	0	9
SSE	0	3	7	1	0	0	11
S	0	2	6	5	0	0	13
SSW	0	0	2	2	1	0	5
SW	0	1	1	2	0	0	4
WSW	0	0	9	2	0	0	11
W	0	0	6	1	0	0	7
WNW	0	2	1	0	0	0	3
NW	0	0	5	3	0	0	8
NNW	0	0	5	2	0	0	7
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	20	69	24	1	0	114

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: 41

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	2	1	0	0	3
NNE	0	1	1	0	0	0	2
NE	0	4	9	1	0	0	14
ENE	0	3	0	0	0	0	3
E	0	2	1	1	0	0	4
ESE	0	4	2	0	0	0	6
SE	0	4	3	0	0	0	7
SSE	0	2	5	2	0	0	9
S	0	1	6	5	0	0	12
SSW	0	2	9	5	3	1	20
SW	0	1	3	1	0	0	5
WSW	0	2	5	4	0	0	11
W	0	0	3	4	0	0	7
WNW	0	3	7	0	0	0	10
NW	0	3	4	1	0	0	8
NNW	0	0	6	2	0	0	8
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	32	66	27	3	1	129

Hours of calm in this stability class: 0  
Hours of missing wind measurements in this stability class: 1  
Hours of missing stability measurements in all stability classes: 41



# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	1	5	25	12	1	0	44
NNE	0	18	14	8	2	0	42
NE	0	15	22	11	0	0	48
ENE	2	20	13	2	0	0	37
E	3	13	5	2	0	0	23
ESE	2	10	4	2	0	0	18
SE	1	7	7	4	0	0	19
SSE	1	4	13	4	0	1	23
S	1	5	20	7	2	0	35
SSW	0	3	12	13	5	0	33
SW	0	2	15	14	3	0	34
WSW	0	8	17	4	0	0	29
W	2	12	12	2	0	0	28
WNW	0	8	10	0	0	0	18
NW	1	10	14	4	0	0	29
NNW	0	7	20	5	0	0	32
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	147	223	94	13	1	492

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: 41

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	9	31	5	0	0	45
NNE	0	10	41	11	1	0	63
NE	1	21	57	26	1	0	106
ENE	2	28	45	4	0	0	79
E	0	10	23	3	0	0	36
ESE	1	4	15	25	2	0	47
SE	0	3	20	19	2	2	46
SSE	0	8	22	35	0	1	66
S	0	2	22	80	17	0	121
SSW	0	2	17	67	25	0	111
SW	2	0	20	21	0	0	43
WSW	2	6	28	10	0	0	46
W	2	4	14	6	0	0	26
WNW	1	3	15	3	1	0	23
NW	1	7	13	3	0	0	24
NNW	2	6	24	8	0	0	40
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	123	407	326	49	3	922

Hours of calm in this stability class: 0  
Hours of missing wind measurements in this stability class: 13  
Hours of missing stability measurements in all stability classes: 41

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	1	1	17	0	0	0	19
NNE	0	5	8	0	0	0	13
NE	1	6	7	0	0	0	14
ENE	0	18	8	0	0	0	26
E	1	4	10	7	0	0	22
ESE	1	3	11	9	0	0	24
SE	1	7	18	9	0	0	35
SSE	0	4	12	6	0	0	22
S	0	1	4	3	0	0	8
SSW	0	1	7	5	1	0	14
SW	1	0	4	17	0	0	22
WSW	0	1	4	1	0	0	6
W	0	1	10	0	0	0	11
WNW	1	3	13	1	0	0	18
NW	0	3	12	1	0	0	16
NNW	0	3	10	0	0	0	13
VARIABLE	0	0	0	0	0	0	0
TOTAL	7	61	155	59	1	0	283

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: 41

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	1	4	6	0	0	0	11
NNE	1	4	4	0	0	0	9
NE	0	6	0	0	0	0	6
ENE	1	7	2	0	0	0	10
E	0	0	5	3	0	0	8
ESE	0	0	6	0	0	0	6
SE	2	0	2	0	0	0	4
SSE	1	5	0	0	0	0	6
S	0	6	2	0	0	0	8
SSW	2	4	1	0	0	0	7
SW	0	1	1	1	0	0	3
WSW	0	2	2	4	0	0	8
W	0	0	7	4	0	0	11
WNW	0	0	9	1	0	0	10
NW	0	1	8	0	0	0	9
NNW	1	10	9	1	0	0	21
VARIABLE	0	0	0	0	0	0	0
TOTAL	9	50	64	14	0	0	137

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: 41

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

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

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

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

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

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

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	2	2	0	0	6
NNE	0	3	0	3	0	1	7
NE	1	1	1	14	0	0	17
ENE	1	5	10	4	0	0	20
E	0	2	3	0	0	0	5
ESE	0	2	7	3	0	2	14
SE	1	2	11	12	0	0	26
SSE	0	11	10	15	2	0	38
S	1	4	3	3	0	0	11
SSW	1	3	1	8	8	2	23
SW	1	5	8	24	4	0	42
WSW	2	6	27	19	2	1	57
W	0	9	8	17	17	1	52
WNW	0	6	22	22	2	1	53
NW	2	4	16	13	4	0	39
NNW	1	10	4	5	3	1	24
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	75	133	164	42	9	434

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



BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	2	19	11	14	2	0	48
NNE	4	6	26	16	4	0	56
NE	0	12	32	26	6	0	76
ENE	0	28	31	6	0	0	65
E	3	19	24	7	0	0	53
ESE	0	5	7	19	8	10	49
SE	2	8	23	51	12	0	96
SSE	0	13	36	20	10	0	79
S	0	3	12	28	29	4	76
SSW	2	4	14	39	43	5	107
SW	0	6	44	17	2	1	70
WSW	1	5	53	40	5	4	108
W	1	11	29	57	26	9	133
WNW	1	15	52	72	38	7	185
NW	0	8	30	36	14	0	88
NNW	2	14	18	25	5	3	67
VARIABLE	0	0	0	0	0	0	0
TOTAL	18	176	442	473	204	43	1356

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

# BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	6	2	0	0	10
NNE	1	6	7	0	0	0	14
NE	0	6	4	0	0	0	10
ENE	0	0	1	0	0	0	1
E	0	1	5	7	0	0	13
ESE	0	4	7	7	0	0	18
SE	0	0	9	1	0	0	10
SSE	0	5	7	4	0	0	16
S	0	5	3	4	0	0	12
SSW	0	3	7	9	0	0	19
SW	1	2	5	9	0	0	17
WSW	0	1	11	9	0	0	21
W	1	4	13	12	0	0	30
WNW	1	5	10	10	0	0	26
NW	1	2	15	2	0	0	20
NNW	1	1	6	1	0	0	9
VARIABLE	0	0	0	0	0	0	0
TOTAL	6	47	116	77	0	0	246

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

BRAIDWOOD NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 2000

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

WIND DIRECTION	WIND SPEED (in mph)						TOTAL
	0.9-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	3	2	0	0	7
NNE	0	1	0	0	0	0	1
NE	0	2	2	0	0	0	4
ENE	0	2	2	0	0	0	4
E	1	5	1	0	0	0	7
ESE	0	1	2	0	0	0	3
SE	1	0	0	0	0	0	1
SSE	1	3	0	0	0	0	4
S	2	4	0	0	0	0	6
SSW	1	2	2	0	0	0	5
SW	3	3	0	1	1	0	8
WSW	1	4	2	1	0	0	8
W	0	1	8	12	0	0	21
WNW	1	4	8	18	0	0	31
NW	0	3	10	1	0	0	14
NNW	0	1	1	5	0	0	7
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	38	41	40	1	0	131

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

### APPENDIX III

#### 2000 REMP SAMPLE RESULTS

# BRAIDWOOD

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## BRAIDWOOD

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## BRAIDWOOD

### 1.0 INTRODUCTION

The following constitutes the current, 2000 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  $x \pm 2s; 2TPU$ , 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 alpha and beta, are decay corrected to the time of collection.

TLD data is provided by Commonwealth Edison 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

None for 2000.

## 2.0 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Expected Collection Date	Reason
-------------	------------------	--------------------------------	--------

None for 2000.



# BRAIDWOOD

## 3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
WW	BD-36	01-07-00	Unusually low tritium level of $-49 \pm 89$ pCi/L. Sample was repeated on 03-07-2000 from original container with a result of $87 \pm 83$ pCi/L. Collector was then asked to resample, which he did on 03-18-2000; tritium result from resample was $471 \pm 122$ pCi/L which is consistent with past results. No explanation for unusually low results for January sample.
WW	BD-13	04-01-00	No sample; building closed; collector obtained sample on 04-07-2000.
A	BD-20	05-13-00	Low reading of 156.4 possibly due to power outages from storms in the area.
A	BD-21	05-13-00	Low reading of 156.4 possibly due to power outages from storms in the area.
A	BD-21	06-24-00	Flowmeter indicator stuck on bottom - no reading for $FL_A$ ; used 60 for calculations - average of previous four weeks' readings. Collector replaced flowmeter.
A	BD-20	07-13-00	Low reading of 83.5 due to tripped circuit breaker.
A/I	BD-19	10-12-00	No apparent reason for low meter reading of 155.5.

# BRAIDWOOD

Table 1. Airborne Particulates and Iodine Cartridges  
 Collection: Airborne Particulates: Continuous; weekly exchange  
 Iodine Cartridges: Continuous; biweekly exchange  
 ODCM-  
 Required LLDs: Gross Beta = 0.01, I-131 = 0.07 pCi/m<sup>3</sup>  
 Units: 10<sup>-2</sup> pCi/m<sup>3</sup>

BD-03 (C) County Line Road							
Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>
01-07-00	328	4.3 ± 0.4; 0.9	-	07-06-00	278	2.2 ± 0.3; 0.5	-0.2 ± 0.2; 0.2
01-14-00	283	3.2 ± 0.4; 0.7	0.3 ± 0.4; 0.4	07-13-00	287	2.1 ± 0.4; 0.5	-
01-22-00	331	3.5 ± 0.4; 0.8	-	07-20-00	287	1.9 ± 0.3; 0.5	0.1 ± 0.4; 0.4
01-29-00	283	4.3 ± 0.5; 0.9	0.0 ± 0.5; 0.5	07-27-00	283	2.3 ± 0.3; 0.5	-
02-05-00	288	3.3 ± 0.4; 0.7	-	08-03-00	283	2.6 ± 0.4; 0.6	0.6 ± 0.4; 0.4
02-12-00	282	4.6 ± 0.4; 0.9	-0.2 ± 0.4; 0.4	08-11-00	324	2.3 ± 0.3; 0.5	-
02-19-00	284	1.9 ± 0.4; 0.5	-	08-19-00	335	2.3 ± 0.3; 0.5	0.5 ± 0.4; 0.4
02-26-00	288	3.8 ± 0.4; 0.8	-0.1 ± 0.5; 0.5	08-24-00	203	3.4 ± 0.5; 0.8	-
03-04-00	282	2.1 ± 0.3; 0.5	-	08-31-00	289	3.5 ± 0.4; 0.8	-0.3 ± 0.4; 0.4
03-11-00	286	2.5 ± 0.4; 0.6	0.7 ± 0.4; 0.4	09-07-00	283	2.4 ± 0.3; 0.6	-
03-18-00	285	2.8 ± 0.4; 0.6	-	09-14-00	289	1.9 ± 0.3; 0.5	0.3 ± 0.4; 0.4
03-25-00	285	1.8 ± 0.3; 0.5	-0.0 ± 0.3; 0.3	09-22-00	315	2.8 ± 0.3; 0.6	-
1st Qtr. Mean±s.d.		3.2±1.0	0.1±0.3	09-28-00	263	1.9 ± 0.3; 0.5	0.2 ± 0.3; 0.3
				3rd Qtr. Mean±s.d.		2.4±0.5	0.2±0.3
04-01-00	290	1.6 ± 0.3; 0.5	-	10-05-00	276	2.9 ± 0.4; 0.7	-
04-07-00	239	2.1 ± 0.4; 0.5	0.0 ± 0.4; 0.4	10-12-00	285	2.5 ± 0.3; 0.6	-0.5 ± 0.5; 0.5
04-15-00	324	2.3 ± 0.3; 0.5	-	10-19-00	283	3.7 ± 0.4; 0.8	-
04-22-00	285	1.9 ± 0.3; 0.5	-0.2 ± 0.5; 0.5	10-26-00	284	5.7 ± 0.5; 1.1	0.3 ± 0.4; 0.4
04-28-00	255	2.5 ± 0.4; 0.6	-	11-02-00	285	3.8 ± 0.4; 0.8	-
05-06-00	314	2.2 ± 0.3; 0.5	0.3 ± 0.4; 0.4	11-09-00	285	2.4 ± 0.3; 0.1	0.2 ± 0.4; 0.4
05-13-00	288	2.1 ± 0.3; 0.5	-	11-16-00	287	3.1 ± 0.4; 0.7	-
05-19-00	253	1.8 ± 0.3; 0.5	0.4 ± 0.5; 0.5	11-22-00	236	3.1 ± 0.4; 0.7	0.4 ± 0.3; 0.3
05-26-00	282	2.2 ± 0.3; 0.5	-	11-30-00	329	5.0 ± 0.5; 1.0	-
06-03-00	316	1.9 ± 0.3; 0.5	0.0 ± 0.4; 0.4	12-07-00	284	2.1 ± 0.3; 0.5	0.3 ± 0.4; 0.4
06-09-00	254	2.0 ± 0.4; 0.5	-	12-14-00	284	3.7 ± 0.4; 0.8	-
06-16-00	285	1.9 ± 0.3; 0.5	-0.1 ± 0.5; 0.5	12-21-00	292	3.8 ± 0.4; 0.8	0.5 ± 0.3; 0.3
06-23-00	288	1.2 ± 0.3; 0.3	-	12-27-00	244	4.7 ± 0.5; 1.0	-
06-29-00	245	1.7 ± 0.4; 0.5	0.1 ± 0.4; 0.4	4th Qtr. Mean±s.d.		3.6±1.1	0.2±0.4
2nd Qtr. Mean±s.d.		1.9±0.3	0.1±0.2				

<sup>a</sup> Volume based on two week collection period.

# BRAIDWOOD

Table 1. Airborne Particulates and Iodine Cartridges  
 Collection: Airborne Particulates: Continuous; weekly exchange  
 Iodine Cartridges: Continuous; biweekly exchange  
 ODCM-  
 Required LLDs: Gross Beta = 0.01, I-131 = 0.07 pCi/m<sup>3</sup>  
 Units: 10<sup>-2</sup> pCi/m<sup>3</sup>

BD-06 Godley							
Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>
01-07-00	328	4.4 ± 0.4; 0.9	-	07-06-00	279	1.8 ± 0.3; 0.4	0.5 ± 0.2; 0.2
01-14-00	284	2.6 ± 0.4; 0.6	0.2 ± 0.4; 0.4	07-13-00	287	2.3 ± 0.4; 0.6	-
01-22-00	337	3.7 ± 0.4; 0.8	-	07-20-00	287	2.0 ± 0.3; 0.5	-0.2 ± 0.4; 0.4
01-29-00	283	4.0 ± 0.5; 0.9	-0.1 ± 0.5; 0.5	07-27-00	283	2.3 ± 0.3; 0.5	-
02-05-00	288	2.9 ± 0.4; 0.7	-	08-03-00	283	2.3 ± 0.4; 0.6	-0.5 ± 0.4; 0.4
02-12-00	287	4.4 ± 0.4; 0.9	1.2 ± 0.4; 0.5	08-11-00	324	2.1 ± 0.3; 0.5	-
02-19-00	284	2.6 ± 0.4; 0.6	-	08-19-00	335	1.9 ± 0.3; 0.4	-0.3 ± 0.4; 0.4
02-26-00	278	3.7 ± 0.4; 0.8	-0.4 ± 0.5; 0.5	08-24-00	203	3.1 ± 0.5; 0.7	-
03-04-00	282	2.2 ± 0.3; 0.5	-	08-31-00	279	3.7 ± 0.5; 0.8	-1.4 ± 0.6; 0.6
03-11-00	286	2.4 ± 0.4; 0.6	0.1 ± 0.5; 0.5	09-07-00	283	2.6 ± 0.3; 0.6	-
03-18-00	281	3.3 ± 0.4; 0.7	-	09-14-00	289	1.7 ± 0.3; 0.4	0.4 ± 0.5; 0.5
03-25-00	290	2.2 ± 0.3; 0.5	0.8 ± 0.4; 0.4	09-22-00	315	2.7 ± 0.3; 0.6	-
1st Qtr. Mean±s.d.		3.2±0.8	0.3±0.6	09-28-00	263	2.2 ± 0.3; 0.5	-0.4 ± 0.4; 0.4
04-01-00	286	1.5 ± 0.3; 0.4	-	3rd Qtr. Mean±s.d.		2.4±0.6	-0.3±0.6
04-07-00	243	2.1 ± 0.4; 0.5	-0.4 ± 0.4; 0.4	10-05-00	276	2.8 ± 0.4; 0.7	-
04-15-00	324	2.0 ± 0.3; 0.5	-	10-12-00	285	2.1 ± 0.3; 0.5	-0.5 ± 0.4; 0.4
04-22-00	285	1.6 ± 0.3; 0.4	0.6 ± 0.4; 0.4	10-19-00	283	3.6 ± 0.4; 0.8	-
04-28-00	254	2.8 ± 0.4; 0.6	-	10-26-00	284	5.4 ± 0.5; 1.1	-0.1 ± 0.5; 0.5
05-06-00	315	2.0 ± 0.3; 0.5	0.5 ± 0.5; 0.5	11-02-00	285	3.5 ± 0.4; 0.8	-
05-13-00	288	2.1 ± 0.3; 0.5	-	11-09-00	285	3.0 ± 0.3; 0.6	0.1 ± 0.5; 0.5
05-19-00	253	2.4 ± 0.4; 0.6	0.2 ± 0.5; 0.5	11-16-00	287	3.1 ± 0.4; 0.7	-
05-26-00	282	2.1 ± 0.3; 0.5	-	11-22-00	240	2.9 ± 0.4; 0.7	0.4 ± 0.4; 0.4
06-03-00	316	1.9 ± 0.3; 0.5	0.5 ± 0.3; 0.3	11-30-00	329	5.1 ± 0.5; 1.0	-
06-09-00	254	2.2 ± 0.4; 0.6	-	12-07-00	284	1.9 ± 0.3; 0.5	-0.2 ± 0.3; 0.3
06-16-00	285	1.7 ± 0.3; 0.4	-0.1 ± 0.4; 0.4	12-14-00	290	4.5 ± 0.5; 0.9	-
06-23-00	288	1.6 ± 0.3; 0.4	-	12-21-00	291	4.4 ± 0.4; 0.9	0.0 ± 0.4; 0.4
06-29-00	244	1.8 ± 0.4; 0.5	0.3 ± 0.5; 0.5	12-27-00	239	3.5 ± 0.5; 0.8	-
2nd Qtr. Mean±s.d.		2.0±0.3	0.2±0.4	4th Qtr. Mean±s.d.		3.5±1.1	-0.1±0.3

<sup>a</sup> Volume based on two week collection period.

# BRAIDWOOD

Table 1. Airborne Particulates and Iodine Cartridges  
Collection: Airborne Particulates: Continuous; weekly exchange  
Iodine Cartridges: Continuous; biweekly exchange  
ODCM-  
Required LLDs: Gross Beta = 0.01, I-131 = 0.07 pCi/m<sup>3</sup>  
Units: 10<sup>-2</sup> pCi/m<sup>3</sup>

BD-19 Nearsite, NW							
Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>
01-07-00	329	3.6 ± 0.4; 0.7	-	07-06-00	279	2.1 ± 0.3; 0.5	0.4 ± 0.2; 0.2
01-14-00	284	3.3 ± 0.4; 0.7	-0.3 ± 0.5; 0.5	07-13-00	287	2.1 ± 0.4; 0.5	-
01-22-00	326	3.6 ± 0.4; 0.8	-	07-20-00	287	1.4 ± 0.3; 0.4	0.2 ± 0.4; 0.4
01-29-00	283	3.3 ± 0.4; 0.7	-0.2 ± 0.4; 0.4	07-27-00	282	2.1 ± 0.3; 0.5	-
02-05-00	288	3.2 ± 0.4; 0.7	-	08-03-00	284	1.9 ± 0.4; 0.5	-0.5 ± 0.5; 0.5
02-12-00	282	4.1 ± 0.4; 0.8	0.2 ± 0.5; 0.5	08-11-00	324	2.2 ± 0.3; 0.5	-
02-19-00	284	2.7 ± 0.4; 0.6	-	08-19-00	335	2.4 ± 0.3; 0.5	-0.0 ± 0.3; 0.3
02-26-00	282	3.6 ± 0.4; 0.8	0.0 ± 0.4; 0.4	08-24-00	203	2.9 ± 0.4; 0.7	-
03-04-00	283	1.8 ± 0.3; 0.5	-	08-31-00	279	4.5 ± 0.5; 0.9	-0.7 ± 0.5; 0.6
03-11-00	286	2.5 ± 0.4; 0.6	-0.1 ± 0.5; 0.5	09-07-00	283	2.6 ± 0.3; 0.6	-
03-18-00	282	2.8 ± 0.4; 0.6	-	09-14-00	289	1.8 ± 0.3; 0.5	0.2 ± 0.5; 0.5
03-25-00	285	1.9 ± 0.3; 0.5	-0.0 ± 0.4; 0.4	09-22-00	320	2.7 ± 0.3; 0.6	-
1st Qtr. Mean±s.d.		3.0±0.7	-0.1±0.2	09-28-00	263	2.0 ± 0.3; 0.5	0.6 ± 0.4; 0.4
				3rd Qtr. Mean±s.d.		2.4±0.8	0.0±0.5
04-01-00	286	1.6 ± 0.4; 0.5	-	10-05-00	276	2.7 ± 0.4; 0.6	-
04-07-00	242	2.1 ± 0.4; 0.5	-0.5 ± 0.4; 0.4	10-12-00	264	2.4 ± 0.3; 0.5	0.4 ± 0.5; 0.5
04-15-00	325	2.1 ± 0.3; 0.5	-	10-19-00	281	4.0 ± 0.4; 0.8	-
04-22-00	285	1.8 ± 0.3; 0.5	-0.7 ± 0.5; 0.5	10-26-00	287	5.6 ± 0.5; 1.1	-1.1 ± 0.4; 0.4
04-28-00	255	2.7 ± 0.4; 0.6	-	11-02-00	280	2.7 ± 0.4; 0.6	-
05-06-00	315	2.4 ± 0.4; 0.6	0.4 ± 0.4; 0.4	11-09-00	285	2.9 ± 0.3; 0.6	-0.2 ± 0.5; 0.5
05-13-00	288	2.1 ± 0.3; 0.5	-	11-16-00	287	3.2 ± 0.4; 0.7	-
05-19-00	253	2.5 ± 0.4; 0.6	-0.1 ± 0.5; 0.5	11-22-00	240	3.0 ± 0.4; 0.7	0.4 ± 0.4; 0.4
05-26-00	282	2.2 ± 0.3; 0.5	-	11-30-00	335	5.4 ± 0.5; 1.1	-
06-03-00	316	1.7 ± 0.3; 0.4	0.2 ± 0.4; 0.4	12-07-00	279	2.1 ± 0.3; 0.5	-0.3 ± 0.4; 0.4
06-09-00	254	1.9 ± 0.4; 0.5	-	12-14-00	285	4.2 ± 0.5; 0.9	-
06-16-00	285	1.9 ± 0.3; 0.5	-0.3 ± 0.4; 0.4	12-21-00	290	3.8 ± 0.4; 0.8	-0.1 ± 0.5; 0.5
06-23-00	288	1.7 ± 0.3; 0.4	-	12-27-00	239	3.6 ± 0.5; 0.8	-
06-29-00	244	1.9 ± 0.4; 0.5	-0.1 ± 0.3; 0.3				
2nd Qtr. Mean±s.d.		2.0±0.3	-0.2±0.4	4th Qtr. Mean±s.d.		3.5±1.1	-0.2±0.6

<sup>a</sup> Volume based on two week collection period.

<sup>b</sup> Volume slightly low; no apparent reason for low meter reading of 155.5.

# BRAIDWOOD

Table 1. Airborne Particulates and Iodine Cartridges  
Collection: Airborne Particulates: Continuous; weekly exchange  
Iodine Cartridges: Continuous; biweekly exchange  
ODCM-  
Required LLDs: Gross Beta = 0.01, I-131 = 0.07 pCi/m<sup>3</sup>  
Units: 10<sup>-2</sup> pCi/m<sup>3</sup>

BD-20 Nearsite, N							
Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>
01-07-00	327	4.0 ± 0.4; 0.8	-	07-06-00	279	2.1 ± 0.3; 0.5	-0.6 ± 0.2; 0.2
01-14-00	285	2.8 ± 0.4; 0.6	0.0 ± 0.4; 0.4	07-13-00	141 <sup>c</sup>	0.6 ± 0.5; 0.5	-
01-22-00	326	3.8 ± 0.4; 0.8	-	07-20-00	287	1.9 ± 0.3; 0.5	0.3 ± 0.5; 0.5
01-29-00	283	3.7 ± 0.5; 0.8	-0.4 ± 0.5; 0.5	07-27-00	282	2.4 ± 0.3; 0.5	-
02-05-00	288	2.9 ± 0.4; 0.7	-	08-03-00	284	2.4 ± 0.4; 0.6	0.2 ± 0.5; 0.5
02-12-00	282	4.4 ± 0.4; 0.9	0.9 ± 0.4; 0.4	08-11-00	324	2.6 ± 0.3; 0.6	-
02-19-00	284	2.3 ± 0.4; 0.6	-	08-19-00	335	2.6 ± 0.3; 0.6	-0.0 ± 0.3; 0.3
02-26-00	277	3.4 ± 0.4; 0.7	-0.1 ± 0.4; 0.4	08-24-00	207	3.9 ± 0.5; 0.8	-
03-04-00	283	2.2 ± 0.3; 0.5	-	08-31-00	279	4.1 ± 0.5; 0.9	0.1 ± 0.6; 0.6
03-11-00	286	2.7 ± 0.4; 0.6	0.2 ± 0.5; 0.5	09-07-00	282	2.5 ± 0.3; 0.6	-
03-18-00	281	3.0 ± 0.4; 0.7	-	09-14-00	290	2.1 ± 0.3; 0.5	0.9 ± 0.5; 0.5
03-25-00	290	2.0 ± 0.3; 0.5	-0.4 ± 0.3; 0.3	09-22-00	315	3.1 ± 0.3; 0.7	-
1st Qtr. Mean±s.d.		3.1±0.8	0.1±0.5	09-28-00	263	2.2 ± 0.3; 0.5	-0.1 ± 0.5; 0.5
04-01-00	286	1.4 ± 0.3; 0.4	-	3rd Qtr. Mean±s.d.		2.6±0.7	0.1±0.5
04-07-00	242	2.1 ± 0.4; 0.5	-0.0 ± 0.4; 0.4	10-05-00	276	3.3 ± 0.4; 0.7	-
04-15-00	325	2.1 ± 0.3; 0.5	-	10-12-00	285	2.5 ± 0.3; 0.6	1.0 ± 0.5; 0.5
04-22-00	285	2.1 ± 0.4; 0.5	-0.2 ± 0.5; 0.5	10-19-00	281	4.0 ± 0.4; 0.8	-
04-28-00	255	2.8 ± 0.4; 0.6	-	10-26-00	287	5.8 ± 0.5; 1.1	-0.3 ± 0.4; 0.4
05-06-00	315	2.0 ± 0.3; 0.5	0.3 ± 0.5; 0.5	11-02-00	285	3.5 ± 0.4; 0.8	-
05-13-00	265 <sup>b</sup>	1.9 ± 0.3; 0.5	-	11-09-00	285	3.0 ± 0.3; 0.6	0.8 ± 0.4; 0.4
05-19-00	253	2.4 ± 0.4; 0.6	0.8 ± 0.6; 0.6	11-16-00	285	3.4 ± 0.4; 0.7	-
05-26-00	273	2.2 ± 0.3; 0.5	-	11-22-00	242	3.0 ± 0.4; 0.7	0.5 ± 0.5; 0.5
06-03-00	316	2.1 ± 0.3; 0.5	-0.1 ± 0.4; 0.4	11-30-00	329	4.9 ± 0.5; 1.0	-
06-09-00	254	1.8 ± 0.4; 0.5	-	12-07-00	283	2.1 ± 0.3; 0.5	0.3 ± 0.3; 0.3
06-16-00	285	1.8 ± 0.3; 0.4	-0.3 ± 0.5; 0.5	12-14-00	282	3.7 ± 0.4; 0.8	-
06-23-00	288	1.5 ± 0.3; 0.4	-	12-21-00	290	4.1 ± 0.4; 0.8	0.2 ± 0.4; 0.4
06-29-00	244	1.7 ± 0.4; 0.5	-0.1 ± 0.5; 0.5	12-27-00	239	3.8 ± 0.5; 0.8	-
2nd Qtr. Mean±s.d.		2.0±0.4	0.0±0.4	4th Qtr. Mean±s.d.		3.6±1.0	0.4±0.5

<sup>a</sup> Volume based on two week collection period.

<sup>b</sup> Volume low; meter reading of 156.4 possibly due to power outage from storms in the area.

<sup>c</sup> Volume low due to tripped circuit breaker; result not included in quarterly mean.

# BRAIDWOOD

Table 1. Airborne Particulates and Iodine Cartridges  
 Collection: Airborne Particulates: Continuous; weekly exchange  
 Iodine Cartridges: Continuous; biweekly exchange  
 ODCM-  
 Required LLDs: Gross Beta = 0.01, I-131 = 0.07 pCi/m<sup>3</sup>  
 Units: 10<sup>-2</sup> pCi/m<sup>3</sup>

BD-21 Nearsite, NE							
Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131 <sup>a</sup>
01-07-00	323	4.1 ± 0.4; 0.8	-	07-06-00	279	2.2 ± 0.3; 0.5	0.0 ± 0.2; 0.2
01-14-00	287	2.7 ± 0.4; 0.6	0.8 ± 0.5; 0.5	07-13-00	287	2.2 ± 0.4; 0.5	-
01-22-00	325	3.7 ± 0.4; 0.8	-	07-20-00	292	1.6 ± 0.3; 0.4	-0.9 ± 0.3; 0.4
01-29-00	284	3.8 ± 0.5; 0.8	0.0 ± 0.5; 0.5	07-27-00	283	2.3 ± 0.3; 0.5	-
02-05-00	293	3.0 ± 0.4; 0.7	-	08-03-00	283	2.4 ± 0.4; 0.6	0.6 ± 0.5; 0.5
02-12-00	282	4.4 ± 0.4; 0.9	-0.7 ± 0.5; 0.5	08-11-00	324	1.9 ± 0.3; 0.4	-
02-19-00	284	2.8 ± 0.4; 0.6	-	08-19-00	335	2.2 ± 0.3; 0.5	-0.2 ± 0.3; 0.3
02-26-00	288	3.4 ± 0.4; 0.7	-0.1 ± 0.5; 0.5	08-24-00	203	3.3 ± 0.5; 0.8	-
03-04-00	282	2.3 ± 0.3; 0.5	-	08-31-00	279	4.3 ± 0.5; 0.9	-0.3 ± 0.5; 0.5
03-11-00	286	2.6 ± 0.4; 0.6	0.3 ± 0.2; 0.2	09-07-00	283	2.8 ± 0.4; 0.6	-
03-18-00	281	2.9 ± 0.4; 0.6	-	09-14-00	289	2.0 ± 0.3; 0.5	0.1 ± 0.4; 0.4
03-25-00	285	1.7 ± 0.3; 0.4	0.2 ± 0.4; 0.4	09-22-00	315	2.7 ± 0.3; 0.6	-
1st Qtr. Mean±s.d.		3.1±0.8	0.1±0.5	09-28-00	263	1.9 ± 0.3; 0.5	0.6 ± 0.4; 0.4
				3rd Qtr. Mean±s.d.		2.5±0.7	0.0±0.5
04-01-00	286	1.5 ± 0.3; 0.4	-	10-05-00	276	2.9 ± 0.4; 0.7	-
04-07-00	243	2.1 ± 0.4; 0.5	0.3 ± 0.4; 0.4	10-12-00	285	2.5 ± 0.3; 0.6	-0.4 ± 0.5; 0.5
04-15-00	324	2.0 ± 0.3; 0.5	-	10-19-00	281	3.7 ± 0.4; 0.8	-
04-22-00	285	1.6 ± 0.3; 0.4	-0.4 ± 0.5; 0.5	10-26-00	287	5.8 ± 0.5; 1.1	-0.4 ± 0.4; 0.4
04-28-00	254	2.6 ± 0.4; 0.6	-	11-02-00	280	3.6 ± 0.4; 0.8	-
05-06-00	315	2.1 ± 0.3; 0.5	-0.4 ± 0.5; 0.5	11-09-00	285	3.1 ± 0.4; 0.7	0.4 ± 0.5; 0.5
05-13-00	265 <sup>b</sup>	2.3 ± 0.3; 0.5	-	11-16-00	285	3.1 ± 0.4; 0.7	-
05-19-00	253	2.3 ± 0.4; 0.6	-0.1 ± 0.5; 0.5	11-22-00	242	3.1 ± 0.4; 0.7	0.5 ± 0.4; 0.4
05-26-00	282	2.3 ± 0.3; 0.5	-	11-30-00	329	4.8 ± 0.4; 1.0	-
06-03-00	316	2.0 ± 0.3; 0.5	0.0 ± 0.4; 0.4	12-07-00	283	2.2 ± 0.3; 0.5	-0.3 ± 0.4; 0.4
06-09-00	254	1.7 ± 0.4; 0.5	-	12-14-00	286	4.0 ± 0.4; 0.8	-
06-16-00	285	1.5 ± 0.3; 0.4	-0.1 ± 0.5; 0.5	12-21-00	291	4.4 ± 0.4; 0.9	-0.5 ± 0.4; 0.4
06-23-00	288	1.4 ± 0.3; 0.4	-	12-27-00	238	3.8 ± 0.5; 0.9	-
06-29-00	244	1.8 ± 0.4; 0.5	0.4 ± 0.4; 0.4				
2nd Qtr. Mean±s.d.		1.9±0.4	-0.0±0.3	4th Qtr. Mean±s.d.		3.6±1.0	-0.1±0.4

<sup>a</sup> Volume based on two week collection period.

<sup>b</sup> Volume low; meter reading of 156.4 possibly due to power outage from storms in the area.

# BRAIDWOOD

Table 2. Airborne Particulates

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

## Sample Description and Concentration

### BD-03 (C) County Line Road

2000 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2658	BDAP-5457	BDAP-8398	BDAP-10872
Volume	3,511	3,925	3,726	3,662
Mn-54	0.2 ± 3.4; 3.4	1.9 ± 5.0; 5.0	-0.6 ± 5.1; 5.1	0.8 ± 6.5; 6.5
Fe-59	16.3 ± 9.0; 9.5	7.1 ± 7.8; 7.9	-24.4 ± 11.1; 11.9	7.0 ± 20.9; 20.9
Co-58	5.3 ± 4.1; 4.2	-2.8 ± 4.0; 4.1	1.6 ± 4.3; 4.4	0.5 ± 5.1; 5.1
Co-60	3.4 ± 5.3; 5.3	2.1 ± 4.9; 4.9	5.0 ± 4.8; 4.8	2.3 ± 7.2; 7.2
Zn-65	1.1 ± 10.3; 10.3	-3.1 ± 8.1; 8.1	-3.9 ± 9.2; 9.2	-5.1 ± 12.9; 12.9
Zr/Nb-95	-8.2 ± 5.1; 5.3	1.9 ± 4.5; 4.5	5.3 ± 4.1; 4.2	3.5 ± 5.8; 5.8
Cs-134	-1.5 ± 5.0; 5.0	-6.3 ± 5.7; 5.8	7.7 ± 5.3; 5.5	-11.9 ± 7.8; 8.1
Cs-137	-4.4 ± 4.3; 4.4	0.2 ± 5.2; 5.2	-0.4 ± 5.2; 5.2	3.5 ± 6.9; 7.0
Ba/La-140	-19.4 ± 6.0; 6.9	-49.6 ± 8.0; 11.9	46.8 ± 4.2; 9.3	-112.8 ± 8.8; 21.9

### BD-06 Godley

2000 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2659	BDAP-5458	BDAP-8399	BDAP-10873
Volume	3,515	3,925	3,717	3,665
Mn-54	0.5 ± 4.3; 4.3	-1.6 ± 3.8; 3.8	3.8 ± 4.1; 4.2	8.9 ± 5.7; 5.9
Fe-59	3.8 ± 10.6; 10.7	-2.0 ± 5.7; 5.7	15.7 ± 12.8; 13.1	-42.1 ± 24.1; 25.2
Co-58	-6.2 ± 5.2; 5.3	-0.9 ± 3.3; 3.3	2.2 ± 4.1; 4.1	4.9 ± 5.0; 5.1
Co-60	-1.6 ± 5.8; 5.8	-2.6 ± 4.9; 4.9	-3.1 ± 6.1; 6.2	11.8 ± 6.5; 6.9
Zn-65	-13.2 ± 11.8; 12.0	-3.9 ± 7.8; 7.8	-12.3 ± 12.3; 12.5	-1.0 ± 13.9; 13.9
Zr/Nb-95	-0.4 ± 4.5; 4.5	-2.1 ± 3.2; 3.2	-0.4 ± 4.4; 4.4	5.2 ± 5.3; 5.4
Cs-134	1.5 ± 6.0; 6.1	4.1 ± 4.2; 4.3	6.4 ± 5.2; 5.3	8.1 ± 5.9; 6.1
Cs-137	-0.2 ± 4.3; 4.3	-1.3 ± 3.8; 3.8	-5.0 ± 5.4; 5.5	0.1 ± 6.3; 6.3
Ba/La-140	26.0 ± 6.0; 7.6	-14.6 ± 5.3; 5.9	16.7 ± 4.5; 5.4	11.1 ± 7.3; 7.6

# BRAIDWOOD

Table 2. Airborne Particulates

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

## Sample Description and Concentration

### BD-19 Nearsite, NW

2000 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2660	BDAP-5459	BDAP-8400	BDAP-10874
Volume	3,500	3,925	3,722	3,635
Mn-54	-0.5 ± 3.3; 3.3	0.6 ± 3.4; 3.4	-0.4 ± 4.8; 4.8	6.6 ± 5.2; 5.3
Fe-59	-4.3 ± 5.6; 5.7	-3.7 ± 7.3; 7.4	-19.7 ± 11.8; 12.3	18.9 ± 9.8; 10.4
Co-58	-1.1 ± 2.9; 2.9	-3.9 ± 4.7; 4.7	-0.7 ± 4.4; 4.4	-5.3 ± 6.3; 6.4
Co-60	-1.8 ± 3.3; 3.3	1.5 ± 4.3; 4.4	6.6 ± 4.4; 4.6	6.1 ± 6.6; 6.7
Zn-65	-2.6 ± 6.1; 6.2	1.6 ± 9.1; 9.1	0.6 ± 7.9; 7.9	1.0 ± 14.5; 14.5
Zr/Nb-95	1.4 ± 3.1; 3.2	3.6 ± 3.7; 3.7	2.8 ± 4.4; 4.4	-4.8 ± 6.8; 6.9
Cs-134	1.9 ± 3.5; 3.5	2.7 ± 4.6; 4.6	-2.8 ± 6.4; 6.4	-5.1 ± 7.8; 7.8
Cs-137	-2.2 ± 3.1; 3.1	0.2 ± 3.9; 3.9	-1.0 ± 4.9; 4.9	-0.8 ± 7.3; 7.3
Ba/La-140	36.5 ± 4.3; 7.8	-12.8 ± 4.4; 5.0	3.9 ± 5.5; 5.5	-44.8 ± 8.4; 11.6

### BD-20 Nearsite, N

2000 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2661	BDAP-5460	BDAP-8401	BDAP-10875
Volume	3,499	3,893	3,574	3,656
Mn-54	-2.0 ± 4.4; 4.4	-0.2 ± 4.8; 4.8	-0.2 ± 4.7; 4.7	-4.7 ± 5.3; 5.3
Fe-59	13.6 ± 8.4; 8.7	-1.6 ± 9.8; 9.8	17.6 ± 7.2; 7.8	33.6 ± 17.1; 18.2
Co-58	3.9 ± 5.1; 5.2	4.2 ± 4.1; 4.1	0.1 ± 3.7; 3.7	2.4 ± 6.1; 6.2
Co-60	3.8 ± 6.8; 6.8	-2.6 ± 6.8; 6.9	1.9 ± 42.1; 42.1	4.1 ± 6.1; 6.1
Zn-65	6.9 ± 11.7; 11.7	0.3 ± 12.7; 12.7	5.8 ± 8.0; 8.1	-6.2 ± 9.7; 9.7
Zr/Nb-95	-2.9 ± 5.0; 5.0	3.3 ± 4.7; 4.7	6.3 ± 4.3; 4.4	1.8 ± 6.3; 6.3
Cs-134	-4.8 ± 6.4; 6.5	-1.7 ± 5.9; 5.9	-3.0 ± 6.6; 6.6	-1.4 ± 6.3; 6.3
Cs-137	-2.7 ± 5.1; 5.2	1.1 ± 5.3; 5.3	4.3 ± 4.4; 4.4	-0.8 ± 7.3; 7.3
Ba/La-140	-14.0 ± 6.2; 6.7	-8.0 ± 5.6; 5.8	43.3 ± 4.0; 8.7	-87.1 ± 9.6; 18.2



# BRAIDWOOD

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections

ODCM-

Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m<sup>3</sup>

Other LLDs: Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01;  
Ba/La-140 = 0.025 pCi/m<sup>3</sup>

Units: 10<sup>-4</sup> pCi/m<sup>3</sup>

## Sample Description and Concentration

### BD-21 Nearsite, NE

2000 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	BDAP-2662	BDAP-5461	BDAP-8402,3	BDAP-10876
Volume	3,506	3,902	3,722	3,655
Mn-54	-5.3 ± 5.5; 5.6	-0.1 ± 5.9; 5.9	-1.1 ± 3.2; 3.2	-2.7 ± 6.5; 6.6
Fe-59	-13.0 ± 9.9; 10.1	-2.6 ± 8.2; 8.2	1.6 ± 6.6; 6.6	-8.6 ± 9.5; 9.6
Co-58	9.1 ± 4.7; 5.0	2.1 ± 5.1; 5.2	-2.3 ± 3.0; 3.0	0.7 ± 4.2; 4.2
Co-60	0.4 ± 5.5; 5.5	3.6 ± 6.6; 6.6	-2.7 ± 21.3; 21.3	7.1 ± 6.8; 7.0
Zn-65	1.5 ± 13.3; 13.3	18.3 ± 10.1; 10.6	0.2 ± 5.9; 5.9	14.4 ± 9.5; 9.8
Zr/Nb-95	2.9 ± 4.6; 4.7	3.1 ± 5.4; 5.4	5.7 ± 3.0; 3.2	-4.3 ± 5.7; 5.7
Cs-134	-0.2 ± 1.0; 1.0	4.3 ± 6.0; 6.0	-0.6 ± 4.3; 4.3	-5.4 ± 9.0; 9.0
Cs-137	-1.5 ± 5.8; 5.8	-1.7 ± 5.9; 5.9	-0.6 ± 3.3; 3.3	-2.2 ± 7.5; 7.5
Ba/La-140	-32.2 ± 4.0; 7.0	40.2 ± 6.5; 9.6	-7.3 ± 3.8; 4.0	78.4 ± 9.4; 16.8

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-17 Halpin's Dairy

Date Collected	01-07-00	02-05-00	03-04-00	04-07-00
Lab Code	BDMI-124	BDMI-598	BDMI-1117	BDMI-2029
I-131	0.09 ± 0.19; 0.20	-0.12 ± 0.15; 0.15	0.14 ± 0.17; 0.18	-0.05 ± 0.18; 0.18
Mn-54	-1.0 ± 2.1; 2.1	1.2 ± 1.9; 1.9	0.8 ± 2.0; 2.0	0.7 ± 2.1; 2.1
Fe-59	-8.1 ± 5.1; 5.2	6.2 ± 4.5; 4.5	-1.1 ± 4.3; 4.3	-0.9 ± 5.1; 5.1
Co-58	0.7 ± 1.9; 1.9	0.6 ± 1.9; 1.9	1.2 ± 1.9; 1.9	-0.6 ± 2.2; 2.2
Co-60	1.5 ± 2.3; 2.3	2.5 ± 2.2; 2.3	0.8 ± 1.9; 1.9	-0.6 ± 2.5; 2.5
Zn-65	4.2 ± 5.8; 5.8	-4.1 ± 5.0; 5.0	4.4 ± 4.6; 4.6	0.9 ± 5.7; 5.7
Zr/Nb-95	-1.4 ± 2.3; 2.3	0.7 ± 1.8; 1.8	-1.2 ± 2.2; 2.3	-0.4 ± 2.2; 2.2
Cs-134	0.1 ± 2.7; 2.7	1.2 ± 2.1; 2.1	-0.1 ± 2.4; 2.4	1.0 ± 2.3; 2.3
Cs-137	0.7 ± 2.3; 2.3	1.9 ± 1.9; 1.9	1.6 ± 2.1; 2.1	-0.8 ± 2.4; 2.4
Ba/La-140	0.4 ± 2.0; 2.0	0.3 ± 1.9; 1.9	-1.2 ± 1.7; 1.7	2.0 ± 1.6; 1.6
Date Collected	05-06-00	05-19-00	06-03-00	06-16-00
Lab Code	BDMI-3030	BDMI-3451	BDMI-3663	BDMI-4013
I-131	-0.03 ± 0.14; 0.14	0.06 ± 0.16; 0.16	-0.06 ± 0.13; 0.13	-0.07 ± 0.16; 0.16
Mn-54	-1.9 ± 3.7; 3.7	0.3 ± 1.6; 1.6	-1.1 ± 1.9; 1.9	-0.4 ± 1.8; 1.8
Fe-59	-4.1 ± 7.3; 7.3	-0.8 ± 3.8; 3.8	3.5 ± 5.0; 5.0	-1.2 ± 4.4; 4.4
Co-58	-1.7 ± 3.3; 3.3	0.1 ± 1.7; 1.7	0.9 ± 2.0; 2.0	-1.3 ± 2.0; 2.0
Co-60	0.7 ± 4.3; 4.3	2.2 ± 1.4; 1.4	0.1 ± 2.1; 2.1	-1.2 ± 2.3; 2.3
Zn-65	-0.8 ± 8.1; 8.1	-3.3 ± 3.5; 3.5	4.5 ± 5.5; 5.6	-0.4 ± 3.9; 3.9
Zr/Nb-95	-0.1 ± 3.1; 3.1	1.2 ± 1.7; 1.7	-0.7 ± 1.8; 1.8	-0.3 ± 1.8; 1.8
Cs-134	3.0 ± 3.6; 3.6	-0.6 ± 1.9; 1.9	-0.7 ± 2.1; 2.1	2.6 ± 2.0; 2.1
Cs-137	-2.6 ± 3.0; 3.0	-0.2 ± 1.7; 1.7	1.0 ± 1.7; 1.7	-0.7 ± 1.9; 1.9
Ba/La-140	-7.5 ± 3.6; 3.8	1.2 ± 1.1; 1.1	-0.7 ± 1.5; 1.5	0.3 ± 1.8; 1.8

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-17 Halpin's Dairy

Date Collected	06-29-00	07-13-00	07-27-00	08-11-00
Lab Code	BDMI-4453	BDMI-4993	BDMI-5466	BDMI-5823
I-131	-0.14 ± 0.19; 0.19	-0.00 ± 0.21; 0.21	-0.19 ± 0.17; 0.17	-0.11 ± 0.14; 0.14
Mn-54	1.5 ± 2.1; 2.1	0.3 ± 2.2; 2.2	-1.8 ± 2.8; 2.8	0.4 ± 3.7; 3.7
Fe-59	-5.1 ± 5.1; 5.1	-5.1 ± 5.7; 5.7	1.8 ± 5.8; 5.8	-3.7 ± 6.7; 6.7
Co-58	-2.0 ± 2.2; 2.2	0.3 ± 1.8; 1.8	-0.5 ± 2.5; 2.5	1.3 ± 3.0; 3.0
Co-60	-0.8 ± 2.9; 2.9	-1.7 ± 2.3; 2.3	-0.1 ± 3.4; 3.4	0.7 ± 3.1; 3.1
Zn-65	-2.9 ± 6.5; 6.6	-7.8 ± 6.3; 6.4	5.2 ± 5.9; 5.9	-3.8 ± 7.5; 7.5
Zr/Nb-95	-1.1 ± 2.4; 2.4	-0.5 ± 2.4; 2.4	-0.3 ± 2.6; 2.6	0.8 ± 3.3; 3.3
Cs-134	1.7 ± 2.8; 2.8	-0.4 ± 2.4; 2.4	-0.2 ± 3.0; 3.0	0.3 ± 4.0; 4.0
Cs-137	1.0 ± 2.2; 2.2	1.3 ± 2.3; 2.3	1.1 ± 2.2; 2.2	3.6 ± 3.4; 3.4
Ba/La-140	-2.8 ± 2.2; 2.3	0.5 ± 2.0; 2.0	-2.7 ± 3.0; 3.0	3.0 ± 2.8; 2.8
Date Collected	08-24-00	09-07-00	09-22-00	10-05-00
Lab Code	BDMI-6202	BDMI-6526	BDMI-6923	BDMI-7371
I-131	0.04 ± 0.17; 0.17	-0.02 ± 0.15; 0.15	-0.01 ± 0.13; 0.13	0.03 ± 0.16; 0.16
Mn-54	-0.9 ± 2.1; 2.1	-0.6 ± 1.8; 1.8	-0.9 ± 1.7; 1.7	2.6 ± 2.6; 2.7
Fe-59	2.5 ± 4.6; 4.6	-1.6 ± 4.0; 4.0	1.8 ± 4.0; 4.0	2.7 ± 6.1; 6.1
Co-58	1.3 ± 1.7; 1.7	1.0 ± 1.9; 1.9	-0.1 ± 1.7; 1.7	-0.3 ± 2.2; 2.2
Co-60	2.2 ± 2.2; 2.3	-0.5 ± 2.3; 2.3	0.4 ± 1.8; 1.8	2.5 ± 3.2; 3.2
Zn-65	-8.2 ± 4.9; 5.0	-1.3 ± 5.3; 5.3	2.4 ± 4.1; 4.1	-9.3 ± 7.0; 7.1
Zr/Nb-95	-2.1 ± 2.1; 2.1	0.2 ± 2.0; 2.0	0.1 ± 1.7; 1.7	0.9 ± 2.6; 2.6
Cs-134	0.2 ± 2.2; 2.2	0.1 ± 2.1; 2.1	0.6 ± 2.0; 2.0	2.2 ± 3.3; 3.3
Cs-137	1.0 ± 2.1; 2.1	0.3 ± 2.1; 2.1	0.0 ± 1.7; 1.7	-0.2 ± 2.5; 2.5
Ba/La-140	-2.9 ± 2.4; 2.4	-2.1 ± 2.2; 2.2	-1.3 ± 1.8; 1.8	-2.0 ± 2.3; 2.3

## 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-17 Halpin's Dairy

Date Collected	10-19-00	11-02-00	12-07-00
Lab Code	BDMI-8145	BDMI-8575	BDMI-9660
I-131	-0.06 ± 0.15; 0.15	0.04 ± 0.21; 0.21	-0.05 ± 0.16; 0.16
Mn-54	0.2 ± 2.1; 2.1	0.8 ± 2.0; 2.0	0.1 ± 2.2; 2.2
Fe-59	-0.9 ± 4.5; 4.5	-0.2 ± 3.9; 3.9	3.8 ± 4.9; 5.0
Co-58	-0.2 ± 2.0; 2.0	-1.6 ± 2.1; 2.2	-0.1 ± 2.1; 2.1
Co-60	0.9 ± 2.4; 2.4	1.0 ± 2.1; 2.1	1.0 ± 2.5; 2.5
Zn-65	3.3 ± 6.3; 6.3	1.1 ± 5.0; 5.0	1.0 ± 5.8; 5.8
Zr/Nb-95	-0.9 ± 2.3; 2.3	-2.7 ± 1.8; 1.9	-2.9 ± 1.9; 2.0
Cs-134	1.2 ± 2.3; 2.3	2.1 ± 2.5; 2.5	0.4 ± 2.1; 2.1
Cs-137	-1.1 ± 2.0; 2.0	0.4 ± 1.9; 1.9	-0.6 ± 2.1; 2.1
Ba/La-140	-4.1 ± 2.3; 2.4	-1.4 ± 1.9; 1.9	-0.2 ± 1.6; 1.6

## 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	01-07-00	02-04-00	03-02-00	04-06-00
Lab Code	BDMI-125	BDMI-599	BDMI-1118	BDMI-2030
I-131	0.02 ± 0.20; 0.20	-0.06 ± 0.24; 0.24	0.07 ± 0.15; 0.15	-0.07 ± 0.19; 0.19
Mn-54	0.8 ± 3.2; 3.2	-0.6 ± 1.7; 1.7	-1.5 ± 2.7; 2.7	1.9 ± 4.1; 4.1
Fe-59	-13.0 ± 7.2; 7.4	2.2 ± 3.1; 3.1	0.7 ± 5.6; 5.6	-4.1 ± 7.5; 7.5
Co-58	1.1 ± 3.2; 3.2	0.5 ± 1.7; 1.7	-0.4 ± 2.3; 2.3	-1.1 ± 3.8; 3.8
Co-60	-5.4 ± 4.3; 4.4	-0.5 ± 1.7; 1.7	2.0 ± 2.5; 2.5	2.7 ± 4.2; 4.2
Zn-65	0.9 ± 6.9; 6.9	0.3 ± 3.7; 3.7	-18.1 ± 7.2; 7.6	0.3 ± 8.9; 8.9
Zr/Nb-95	3.2 ± 3.1; 3.1	0.6 ± 1.6; 1.6	-1.1 ± 2.6; 2.7	-1.6 ± 4.6; 4.6
Cs-134	-0.5 ± 3.3; 3.3	-0.7 ± 1.8; 1.8	-2.3 ± 2.6; 2.6	0.5 ± 4.3; 4.3
Cs-137	-1.3 ± 3.1; 3.1	1.1 ± 1.6; 1.6	-0.3 ± 2.5; 2.5	-1.1 ± 3.9; 3.9
Ba/La-140	-0.4 ± 2.2; 2.2	-1.1 ± 1.8; 1.8	-2.4 ± 2.3; 2.3	4.8 ± 3.6; 3.7
Date Collected	05-04-00	05-18-00	06-01-00	06-15-00
Lab Code	BDMI-3031	BDMI-3452	BDMI-3664	BDMI-4014
I-131	0.03 ± 0.17; 0.17	0.00 ± 0.18; 0.18	-0.06 ± 0.21; 0.21	0.07 ± 0.17; 0.17
Mn-54	-1.8 ± 4.1; 4.1	-1.2 ± 3.5; 3.5	0.5 ± 1.8; 1.8	1.3 ± 2.1; 2.1
Fe-59	-4.9 ± 10.4; 10.4	4.6 ± 7.4; 7.5	3.7 ± 3.5; 3.6	-1.0 ± 5.4; 5.4
Co-58	1.5 ± 3.1; 3.1	1.5 ± 3.3; 3.3	-0.3 ± 1.6; 1.6	-0.5 ± 2.0; 2.0
Co-60	-3.0 ± 4.5; 4.6	-0.4 ± 3.9; 3.9	-0.4 ± 2.3; 2.3	-1.4 ± 2.6; 2.6
Zn-65	-7.3 ± 9.9; 10.0	4.7 ± 7.2; 7.3	-0.7 ± 4.1; 4.1	-2.9 ± 5.5; 5.6
Zr/Nb-95	0.5 ± 3.4; 3.4	1.8 ± 2.8; 2.8	0.5 ± 1.9; 1.9	-0.8 ± 2.5; 2.5
Cs-134	1.1 ± 3.3; 3.3	-1.4 ± 3.3; 3.3	2.2 ± 2.0; 2.1	-0.1 ± 2.3; 2.3
Cs-137	0.3 ± 3.3; 3.3	1.5 ± 2.9; 2.9	1.1 ± 1.6; 1.6	-2.2 ± 2.3; 2.3
Ba/La-140	-2.8 ± 4.6; 4.6	0.6 ± 3.1; 3.1	-0.8 ± 1.9; 1.9	-0.7 ± 1.8; 1.8

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	06-29-00	07-13-00	07-27-00	08-10-00
Lab Code	BDMI-4454	BDMI-4994	BDMI-5467	BDMI-5824
I-131	0.12 ± 0.17; 0.18	-0.07 ± 0.18; 0.18	-0.20 ± 0.18; 0.19	0.01 ± 0.16; 0.16
Mn-54	2.4 ± 3.1; 3.1	-0.5 ± 1.2; 1.2	0.3 ± 1.5; 1.5	1.3 ± 3.0; 3.0
Fe-59	1.8 ± 6.1; 6.1	0.6 ± 2.5; 2.5	-1.7 ± 3.1; 3.1	-3.4 ± 7.4; 7.4
Co-58	1.6 ± 2.7; 2.7	-0.3 ± 1.2; 1.2	-0.5 ± 1.5; 1.5	1.1 ± 2.7; 2.7
Co-60	0.9 ± 3.8; 3.8	0.4 ± 1.5; 1.5	0.8 ± 1.8; 1.8	1.0 ± 3.2; 3.2
Zn-65	1.3 ± 6.3; 6.3	-0.1 ± 3.0; 3.0	0.6 ± 3.5; 3.5	-2.3 ± 7.2; 7.2
Zr/Nb-95	-0.7 ± 3.0; 3.0	0.6 ± 1.4; 1.4	0.0 ± 1.6; 1.6	3.4 ± 2.7; 2.8
Cs-134	-3.1 ± 3.3; 3.3	0.0 ± 1.4; 1.4	-0.1 ± 1.7; 1.7	-0.4 ± 3.3; 3.3
Cs-137	0.0 ± 2.8; 2.8	0.2 ± 1.2; 1.2	0.7 ± 1.4; 1.4	-2.8 ± 2.9; 2.9
Ba/La-140	-5.4 ± 3.3; 3.3	-1.2 ± 1.3; 1.3	-0.9 ± 1.6; 1.6	0.7 ± 3.2; 3.2
Date Collected	08-24-00	09-07-00	09-21-00	10-05-00
Lab Code	BDMI-6203	BDMI-6527	BDMI-6924	BDMI-7372
I-131	0.07 ± 0.18; 0.18	0.02 ± 0.18; 0.18	-0.02 ± 0.12; 0.12	0.14 ± 0.17; 0.17
Mn-54	-1.4 ± 2.8; 2.8	-0.9 ± 1.8; 1.8	0.0 ± 2.2; 2.2	2.5 ± 2.1; 2.1
Fe-59	-3.0 ± 6.5; 6.5	-2.3 ± 4.0; 4.0	4.3 ± 4.3; 4.3	0.1 ± 4.1; 4.1
Co-58	1.3 ± 2.7; 2.7	-0.2 ± 1.9; 1.9	1.3 ± 1.8; 1.8	0.6 ± 1.7; 1.7
Co-60	-1.6 ± 2.9; 2.9	1.8 ± 1.9; 2.0	2.6 ± 2.5; 2.5	-2.1 ± 2.2; 2.2
Zn-65	-1.1 ± 8.2; 8.2	0.9 ± 4.3; 4.3	-3.5 ± 5.5; 5.6	-0.6 ± 4.3; 4.3
Zr/Nb-95	-3.5 ± 2.9; 2.9	1.0 ± 1.9; 1.9	1.8 ± 1.9; 1.9	0.2 ± 2.0; 2.0
Cs-134	0.0 ± 3.1; 3.1	1.0 ± 2.0; 2.0	0.3 ± 2.1; 2.1	0.8 ± 2.6; 2.6
Cs-137	-0.8 ± 2.5; 2.5	1.0 ± 1.9; 1.9	1.0 ± 1.9; 1.9	-0.2 ± 1.6; 1.6
Ba/La-140	-0.9 ± 2.9; 2.9	-1.2 ± 1.8; 1.9	-0.6 ± 1.5; 1.5	-0.8 ± 1.3; 1.3

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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	10-19-00	11-02-00	12-07-00
Lab Code	BDMI-8146	BDMI-8576	BDMI-9661
I-131	-0.00 ± 0.15; 0.15	-0.09 ± 0.19; 0.20	-0.15 ± 0.19; 0.19
Mn-54	-0.3 ± 3.0; 3.0	0.2 ± 3.1; 3.1	-1.5 ± 3.8; 3.8
Fe-59	3.0 ± 6.9; 6.9	8.4 ± 6.5; 6.6	0.9 ± 6.5; 6.5
Co-58	2.3 ± 2.8; 2.8	1.7 ± 3.3; 3.3	-1.2 ± 3.4; 3.4
Co-60	1.5 ± 4.3; 4.3	-1.7 ± 3.1; 3.1	-2.2 ± 4.2; 4.2
Zn-65	-2.4 ± 7.7; 7.7	-3.0 ± 7.2; 7.2	-7.2 ± 8.7; 8.7
Zr/Nb-95	1.8 ± 3.2; 3.2	0.3 ± 2.8; 2.8	1.4 ± 3.8; 3.9
Cs-134	-1.5 ± 3.7; 3.7	-2.2 ± 3.6; 3.6	-2.6 ± 3.6; 3.6
Cs-137	0.7 ± 2.9; 2.9	0.9 ± 2.7; 2.7	1.8 ± 3.0; 3.0
Ba/La-140	1.7 ± 3.6; 3.6	-2.3 ± 3.0; 3.1	0.4 ± 3.2; 3.2

## 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-25 (C) Kankakee River, Upstream

Date Collected	05-17-00	05-17-00	05-17-00	05-17-00
Lab Code	BDF-3429	BDF-3430	BDF-3431	BDF-3432
Type	Channel Catfish	Carp	Golden Redhorse	Black Redhorse
Mn-54	0.2 ± 0.4; 0.4	-0.7 ± 0.8; 0.8	0.4 ± 0.4; 0.4	-0.3 ± 0.7; 0.7
Fe-59	1.6 ± 1.3; 1.3	2.6 ± 1.5; 1.5	-0.7 ± 1.2; 1.2	2.3 ± 1.3; 1.3
Co-58	0.3 ± 0.4; 0.4	0.7 ± 0.7; 0.7	0.5 ± 0.5; 0.5	-0.2 ± 0.6; 0.6
Co-60	-0.2 ± 0.7; 0.7	-0.6 ± 0.9; 0.9	0.2 ± 0.6; 0.6	0.4 ± 0.9; 0.9
Zn-65	-0.9 ± 1.1; 1.1	0.1 ± 1.4; 1.4	-3.4 ± 1.6; 1.7	1.2 ± 1.4; 1.4
Zr/Nb-95	0.4 ± 0.3; 0.3	0.7 ± 0.8; 0.8	-0.8 ± 0.5; 0.5	-1.0 ± 0.7; 0.7
Cs-134	0.4 ± 0.4; 0.5	-0.0 ± 0.9; 0.9	-0.1 ± 0.7; 0.7	0.5 ± 0.7; 0.7
Cs-137	0.2 ± 0.4; 0.4	0.3 ± 0.9; 0.9	-0.1 ± 0.5; 0.5	0.5 ± 0.6; 0.6
Ba/La-140	-0.0 ± 0.5; 0.5	-0.9 ± 0.7; 0.7	0.2 ± 0.4; 0.4	0.4 ± 0.7; 0.7
Date Collected	05-17-00	05-17-00	10-19-00	10-19-00
Lab Code	BDF-3433	BDF-3434	BDF-8116	BDF-8117
Type	Smallmouth Bass	Northern Hogsucker	Golden Redhorse	Hogsucker
Mn-54	-0.1 ± 0.6; 0.6	0.3 ± 0.9; 0.9	-0.1 ± 0.4; 0.4	-0.4 ± 1.2; 1.2
Fe-59	1.7 ± 1.5; 1.5	-0.7 ± 2.0; 2.0	0.0 ± 1.0; 1.0	-0.6 ± 2.6; 2.6
Co-58	0.1 ± 0.7; 0.7	0.2 ± 0.9; 0.9	-0.1 ± 0.3; 0.3	-1.5 ± 1.0; 1.1
Co-60	0.1 ± 0.8; 0.8	-1.4 ± 1.1; 1.1	-0.1 ± 0.5; 0.5	0.5 ± 1.3; 1.3
Zn-65	0.6 ± 1.4; 1.4	1.7 ± 2.3; 2.3	0.1 ± 1.0; 1.0	-0.2 ± 2.5; 2.5
Zr/Nb-95	0.1 ± 0.7; 0.7	-0.6 ± 0.9; 0.9	0.1 ± 0.4; 0.4	0.6 ± 1.1; 1.1
Cs-134	-0.2 ± 0.7; 0.7	0.6 ± 1.1; 1.1	0.2 ± 0.4; 0.4	0.0 ± 1.3; 1.3
Cs-137	0.2 ± 0.6; 0.6	0.3 ± 0.8; 0.8	0.3 ± 0.4; 0.4	0.3 ± 1.2; 1.2
Ba/La-140	-0.8 ± 0.5; 0.5	0.1 ± 0.6; 0.6	-1.3 ± 0.5; 0.5	-0.7 ± 1.3; 1.3



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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

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Sample Description and Concentration

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BD-25 (C) Kankakee River, Upstream

Date Collected	10-19-00	10-19-00	10-19-00
Lab Code	BDF-8118	BDF-8119	BDF-8120
Type	Smallmouth Bass	Silver Redhorse	Shorthead Redhorse
Mn-54	$0.0 \pm 0.8; 0.8$	$0.2 \pm 0.5; 0.5$	$0.1 \pm 0.7; 0.7$
Fe-59	$0.2 \pm 1.7; 1.7$	$0.1 \pm 0.9; 0.9$	$-0.2 \pm 1.5; 1.5$
Co-58	$0.1 \pm 0.7; 0.7$	$-0.1 \pm 0.3; 0.3$	$0.0 \pm 0.6; 0.6$
Co-60	$-0.8 \pm 1.0; 1.0$	$-0.1 \pm 0.4; 0.4$	$-0.4 \pm 0.9; 0.9$
Zn-65	$-0.6 \pm 1.9; 1.9$	$0.1 \pm 1.1; 1.1$	$-2.9 \pm 1.9; 1.9$
Zr/Nb-95	$1.0 \pm 0.6; 0.6$	$-0.6 \pm 0.4; 0.4$	$0.3 \pm 0.7; 0.7$
Cs-134	$-0.5 \pm 0.8; 0.8$	$0.5 \pm 0.5; 0.5$	$0.3 \pm 0.7; 0.7$
Cs-137	$0.2 \pm 0.7; 0.7$	$0.4 \pm 0.4; 0.4$	$0.3 \pm 0.7; 0.7$
Ba/La-140	$-1.8 \pm 1.2; 1.2$	$-0.8 \pm 0.4; 0.4$	$-1.5 \pm 0.7; 0.7$

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## 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	05-17-00	05-17-00	05-17-00	05-17-00
Lab Code	BDF-3424	BDF-3425	BDF-3426	BDF-3427
Type	Channel Catfish	Quillback	Carp	Smallmouth Bass
Mn-54	0.3 ± 0.8; 0.8	-0.1 ± 0.7; 0.7	0.1 ± 0.7; 0.7	0.2 ± 0.6; 0.6
Fe-59	-0.1 ± 1.6; 1.6	0.2 ± 1.6; 1.6	-0.2 ± 1.3; 1.3	-0.5 ± 1.2; 1.2
Co-58	22.8 ± 3.1; 4.4	13.0 ± 2.2; 2.9	4.6 ± 1.5; 1.6	0.4 ± 0.6; 0.6
Co-60	1.5 ± 1.0; 1.1	0.1 ± 0.9; 0.9	0.9 ± 0.9; 0.9	-0.2 ± 0.8; 0.8
Zn-65	0.3 ± 2.1; 2.1	0.4 ± 1.7; 1.7	-0.7 ± 1.5; 1.5	1.3 ± 1.4; 1.4
Zr/Nb-95	-0.1 ± 0.8; 0.8	-0.2 ± 0.8; 0.8	0.3 ± 0.6; 0.6	0.2 ± 0.6; 0.6
Cs-134	-0.3 ± 0.9; 0.9	0.5 ± 0.9; 0.9	-0.0 ± 0.8; 0.8	0.4 ± 0.7; 0.7
Cs-137	0.7 ± 0.8; 0.8	0.2 ± 0.8; 0.8	1.3 ± 0.7; 0.8	0.0 ± 0.5; 0.5
Ba/La-140	0.8 ± 0.8; 0.8	0.2 ± 0.9; 0.9	-0.4 ± 0.6; 0.6	-2.3 ± 0.7; 0.7
Date Collected	05-17-00	10-19-00	10-19-00	10-19-00
Lab Code	BDF-3428	BDF-8121	BDF-8122	BDF-8123
Type	Largemouth Bass	Gizzard Shad	Carp	Golden Redhorse
Mn-54	-0.2 ± 0.5; 0.5	0.4 ± 0.8; 0.8	-0.2 ± 0.8; 0.8	-0.6 ± 0.7; 0.7
Fe-59	0.4 ± 0.9; 0.9	1.9 ± 1.3; 1.4	0.7 ± 1.7; 1.7	-2.0 ± 1.3; 1.4
Co-58	0.6 ± 0.5; 0.5	0.2 ± 0.7; 0.7	0.3 ± 0.8; 0.8	-0.0 ± 0.7; 0.7
Co-60	0.4 ± 0.5; 0.5	-0.1 ± 0.9; 0.9	0.5 ± 1.0; 1.0	0.0 ± 0.9; 0.9
Zn-65	0.5 ± 1.0; 1.0	0.2 ± 2.0; 2.0	0.6 ± 1.8; 1.8	0.1 ± 1.8; 1.8
Zr/Nb-95	0.0 ± 0.5; 0.5	0.6 ± 0.7; 0.7	0.1 ± 0.8; 0.8	0.5 ± 0.7; 0.7
Cs-134	-0.2 ± 0.6; 0.6	0.3 ± 0.8; 0.8	0.5 ± 0.9; 0.9	-0.0 ± 0.8; 0.8
Cs-137	0.7 ± 0.4; 0.4	0.0 ± 0.7; 0.7	-0.8 ± 0.8; 0.8	-0.2 ± 0.7; 0.7
Ba/La-140	0.1 ± 0.4; 0.4	0.2 ± 0.7; 0.7	0.0 ± 1.1; 1.1	-0.7 ± 1.0; 1.0

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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

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Sample Description and Concentration

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BD-28 Kankakee River, Discharge

Date Collected	10-19-00	10-19-00
Lab Code	BDF-8124	BDF-8125
Type	Quillback	Smallmouth Bass
Mn-54	-0.1 ± 0.8; 0.8	0.5 ± 0.8; 0.8
Fe-59	1.6 ± 1.7; 1.7	0.5 ± 1.3; 1.3
Co-58	2.0 ± 0.9; 0.9	0.0 ± 0.8; 0.8
Co-60	0.1 ± 1.0; 1.0	-0.2 ± 0.9; 0.9
Zn-65	-0.6 ± 2.1; 2.1	0.6 ± 1.7; 1.7
Zr/Nb-95	0.7 ± 0.6; 0.6	-1.2 ± 0.8; 0.8
Cs-134	0.0 ± 0.8; 0.8	0.3 ± 0.9; 0.9
Cs-137	-0.3 ± 0.6; 0.6	0.5 ± 0.7; 0.7
Ba/La-140	3.4 ± 0.7; 0.8	-0.1 ± 0.9; 0.9

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BRAIDWOOD

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 = 0.10; Fe-59 = 0.60; Co-58, Co-60 = 0.10; Zn-65 = 0.60; Zr/Nb-95 = 0.20;  
Ba/La-140 = 0.60 pCi/g dry weight

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

Sample Description and Concentration

BD-10 Kankakee River, Downstream (5.4 mi.)

Date Collected	05-19-00	10-05-00
Lab Code	BDBS-3458,9	BDBS-7365
Mn-54	$0.7 \pm 0.5$ ; 0.5	$0.6 \pm 1.5$ ; 1.5
Fe-59	$0.8 \pm 1.7$ ; 1.7	$0.2 \pm 3.3$ ; 3.3
Co-58	$-0.2 \pm 0.5$ ; 0.5	$0.6 \pm 1.4$ ; 1.4
Co-60	$1.1 \pm 0.8$ ; 0.8	$-0.5 \pm 1.9$ ; 1.9
Zn-65	$0.9 \pm 1.4$ ; 1.4	$-2.8 \pm 4.0$ ; 4.0
Zr/Nb-95	$-1.1 \pm 0.6$ ; 0.6	$-3.3 \pm 1.7$ ; 1.7
Cs-134	$0.5 \pm 0.6$ ; 0.6	$3.5 \pm 1.6$ ; 1.7
Cs-137	$3.4 \pm 1.1$ ; 1.2	$6.7 \pm 2.7$ ; 2.9
Ba/La-140	$-1.5 \pm 0.5$ ; 0.5	$-5.7 \pm 1.5$ ; 1.7

BD-41 Kankakee River, Downstream (1.0 mi.)

Date Collected	05-19-00	10-05-00
Lab Code	BDBS-3460	BDBS-7366
Mn-54	$-0.3 \pm 1.3$ ; 1.3	$0.1 \pm 1.2$ ; 1.2
Fe-59	$-2.3 \pm 3.1$ ; 3.1	$-1.3 \pm 2.7$ ; 2.7
Co-58	$11.1 \pm 3.3$ ; 3.7	$2.1 \pm 1.1$ ; 1.1
Co-60	$6.2 \pm 2.5$ ; 2.6	$0.3 \pm 1.5$ ; 1.5
Zn-65	$-1.8 \pm 3.2$ ; 3.2	$0.4 \pm 3.2$ ; 3.2
Zr/Nb-95	$-0.9 \pm 1.3$ ; 1.3	$-1.1 \pm 1.0$ ; 1.0
Cs-134	$0.9 \pm 1.4$ ; 1.5	$0.1 \pm 1.2$ ; 1.2
Cs-137	$2.2 \pm 1.3$ ; 1.3	$1.1 \pm 1.0$ ; 1.1
Ba/La-140	$-12.9 \pm 1.4$ ; 2.2	$-3.2 \pm 1.0$ ; 1.1

# BRAIDWOOD

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	09-01-00	09-01-00
Lab Code	BDVE-6302	BDVE-6303
Type	Beets	Cabbage
I-131		-0.53 ± 0.41; 0.42
Mn-54	0.3 ± 0.4; 0.4	0.2 ± 0.5; 0.5
Fe-59	-1.0 ± 0.9; 0.9	1.1 ± 1.0; 1.1
Co-58	0.2 ± 0.4; 0.4	-0.3 ± 0.4; 0.4
Co-60	0.3 ± 0.5; 0.5	0.5 ± 0.6; 0.6
Zn-65	0.6 ± 1.1; 1.1	0.6 ± 1.4; 1.4
Zr/Nb-95	-0.2 ± 0.4; 0.4	0.3 ± 0.5; 0.5
Cs-134	-0.3 ± 0.5; 0.5	0.2 ± 0.6; 0.6
Cs-137	0.0 ± 0.4; 0.4	0.3 ± 0.4; 0.4
Ba/La-140	0.3 ± 0.3; 0.3	-0.4 ± 0.7; 0.7

### BD-Quad 1 Clark Farm

Date Collected	09-01-00	09-01-00
Lab Code	BDVE-6295	BDVE-6294
Type	Cabbage	Potatoes
I-131	1.41 ± 0.67; 0.70	
Mn-54	0.1 ± 0.9; 0.9	-0.0 ± 0.5; 0.5
Fe-59	-0.6 ± 2.0; 2.0	0.3 ± 1.2; 1.2
Co-58	0.1 ± 0.6; 0.6	0.0 ± 0.6; 0.6
Co-60	0.9 ± 1.0; 1.0	0.0 ± 0.7; 0.7
Zn-65	-0.5 ± 2.0; 2.0	0.2 ± 1.3; 1.3
Zr/Nb-95	0.6 ± 0.7; 0.7	-0.3 ± 0.6; 0.6
Cs-134	-0.4 ± 0.9; 0.9	0.2 ± 0.7; 0.7
Cs-137	0.4 ± 0.8; 0.8	0.2 ± 0.4; 0.4
Ba/La-140	-0.7 ± 0.9; 0.9	-0.7 ± 0.5; 0.5

<sup>a</sup> ODCM-required; beets, potatoes = root; cabbage = broad leaf vegetation.

## BRAIDWOOD

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	09-01-00	09-01-00
Lab Code	BDVE-6296	BDVE-6297
Type	Horseradish	Lettuce
I-131		-0.25 ± 0.79; 0.79
Mn-54	0.4 ± 0.4; 0.4	-0.1 ± 0.9; 0.9
Fe-59	-0.0 ± 1.1; 1.1	1.0 ± 2.1; 2.1
Co-58	-0.2 ± 0.5; 0.5	0.7 ± 0.9; 0.9
Co-60	0.1 ± 0.5; 0.5	-0.2 ± 1.2; 1.2
Zn-65	0.2 ± 1.3; 1.3	1.5 ± 2.4; 2.5
Zr/Nb-95	-0.5 ± 0.5; 0.5	0.1 ± 0.9; 0.9
Cs-134	0.1 ± 0.5; 0.5	0.2 ± 1.0; 1.0
Cs-137	0.5 ± 0.5; 0.5	0.7 ± 0.9; 0.9
Ba/La-140	-0.1 ± 0.4; 0.4	-0.2 ± 0.7; 0.7

BD-Quad 3 Terri Schultz

Date Collected	09-01-00	09-01-00
Lab Code	BDVE-6298	BDVE-6299
Type	Potatoes	Endive
I-131		-0.05 ± 0.84; 0.84
Mn-54	0.3 ± 0.8; 0.8	0.3 ± 0.8; 0.8
Fe-59	0.9 ± 1.8; 1.8	1.0 ± 1.9; 1.9
Co-58	0.2 ± 0.7; 0.7	0.7 ± 0.9; 0.9
Co-60	0.3 ± 0.9; 0.9	-0.3 ± 1.1; 1.1
Zn-65	1.3 ± 2.2; 2.2	-2.0 ± 2.2; 2.3
Zr/Nb-95	-0.1 ± 0.6; 0.6	0.4 ± 0.9; 1.0
Cs-134	-1.1 ± 0.7; 0.7	-0.3 ± 1.0; 1.0
Cs-137	0.4 ± 0.9; 0.9	0.1 ± 0.9; 0.9
Ba/La-140	-0.9 ± 0.8; 0.8	0.1 ± 0.8; 0.8

<sup>a</sup> ODCM-required; horseradish, potatoes = root; lettuce, endive = broad leaf vegetation.

BRAIDWOOD

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	09-01-00	09-01-00
Lab Code	BDVE-6300	BDVE-6301
Type	Beets	Beet tops
I-131		$0.01 \pm 0.65$ ; 0.65
Mn-54	$-0.3 \pm 0.4$ ; 0.4	$0.0 \pm 0.8$ ; 0.8
Fe-59	$0.6 \pm 1.0$ ; 1.0	$1.3 \pm 1.6$ ; 1.6
Co-58	$0.4 \pm 0.4$ ; 0.4	$-0.1 \pm 0.7$ ; 0.7
Co-60	$0.1 \pm 0.4$ ; 0.4	$0.5 \pm 0.9$ ; 0.9
Zn-65	$-0.1 \pm 1.3$ ; 1.3	$-0.1 \pm 1.8$ ; 1.8
Zr/Nb-95	$-1.7 \pm 1.1$ ; 1.1	$-0.2 \pm 0.8$ ; 0.8
Cs-134	$0.2 \pm 0.5$ ; 0.5	$0.9 \pm 0.9$ ; 0.9
Cs-137	$0.1 \pm 0.5$ ; 0.5	$-0.1 \pm 0.8$ ; 0.8
Ba/La-140	$-0.5 \pm 0.4$ ; 0.4	$-0.1 \pm 0.6$ ; 0.6

<sup>a</sup> ODCM-required; beets = root, beet tops = broad leaf vegetation.

# BRAIDWOOD

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, Downstream

2000 Collection Period	January	February	March
Lab Code	BDSW-635	BDSW-1006	BDSW-2076
Gross Beta	3.9 ± 1.5; 1.6	4.4 ± 1.6; 1.8	2.5 ± 1.5; 1.5
Mn-54	4.8 ± 3.0; 3.1	-1.7 ± 2.0; 2.0	0.8 ± 3.6; 3.6
Fe-59	-2.4 ± 5.6; 5.6	-1.5 ± 4.0; 4.0	0.4 ± 6.3; 6.3
Co-58	-2.1 ± 3.1; 3.1	-0.2 ± 1.7; 1.7	-2.0 ± 2.6; 2.6
Co-60	-0.4 ± 3.5; 3.5	-0.3 ± 1.3; 1.3	-0.7 ± 2.8; 2.8
Zn-65	6.0 ± 5.6; 5.6	-8.0 ± 4.5; 4.6	-4.0 ± 5.5; 5.5
Zr/Nb-95	1.1 ± 3.1; 3.1	-2.1 ± 2.0; 2.1	-1.2 ± 2.8; 2.8
Cs-134	-1.1 ± 3.6; 3.6	-3.7 ± 2.0; 2.1	-0.3 ± 3.5; 3.5
Cs-137	-2.2 ± 3.3; 3.3	2.5 ± 2.0; 2.0	0.1 ± 2.5; 2.5
Ba/La-140	-3.7 ± 3.2; 3.3	-1.3 ± 2.2; 2.3	1.6 ± 2.5; 2.5
2000 Collection Period	April	May	June
Lab Code	BDSW-3021	BDSW-3898	BDSW-4602
Gross Beta	3.3 ± 1.6; 1.7	3.5 ± 1.5; 1.6	3.7 ± 1.4; 1.5
Mn-54	-1.0 ± 1.0; 1.0	-0.5 ± 1.1; 1.1	-0.1 ± 1.3; 1.3
Fe-59	1.5 ± 1.8; 1.9	-0.5 ± 1.9; 1.9	-3.8 ± 2.8; 2.8
Co-58	-0.5 ± 0.9; 0.9	-1.1 ± 1.1; 1.1	-1.7 ± 1.4; 1.4
Co-60	0.2 ± 1.2; 1.2	1.0 ± 1.2; 1.2	0.4 ± 1.4; 1.4
Zn-65	0.2 ± 2.0; 2.0	0.6 ± 2.0; 2.0	1.1 ± 3.0; 3.0
Zr/Nb-95	-1.0 ± 1.0; 1.0	-1.6 ± 1.0; 1.0	-1.2 ± 1.5; 1.5
Cs-134	-0.3 ± 1.2; 1.2	-1.3 ± 1.2; 1.2	-0.4 ± 1.5; 1.5
Cs-137	-0.5 ± 0.9; 0.9	-0.5 ± 1.2; 1.2	-1.0 ± 1.2; 1.2
Ba/La-140	-1.8 ± 1.1; 1.1	-0.7 ± 1.3; 1.3	-1.8 ± 1.5; 1.5



# BRAIDWOOD

Table 7. Surface Water  
Collection: Monthly composites of weekly collections  
ODCM- Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30,  
Required LLDs: Zr/Nb-95 = 15, Cs-134 = 15, Cs-137 = 18, Ba/La-140 = 15 pCi/L  
Units: pCi/L

Sample Description and Concentration				
<u>BD-10 Kankakee River, Downstream</u>				
2000 Collection Period	July	August	September	
Lab Code	BDSW-5517	BDSW-6567	BDSW-7479	
Gross Beta	6.1 ± 1.7; 2.0 <sup>a</sup>	4.5 ± 1.5; 1.7	5.2 ± 1.6; 1.8	
Mn-54	-2.5 ± 1.7; 1.8	-0.5 ± 1.7; 1.7	-3.2 ± 3.7; 3.7	
Fe-59	3.7 ± 3.2; 3.2	1.0 ± 3.3; 3.3	-2.7 ± 5.4; 5.4	
Co-58	-0.5 ± 2.2; 2.2	0.9 ± 1.5; 1.6	0.4 ± 2.8; 2.8	
Co-60	-1.7 ± 1.9; 2.0	0.5 ± 1.4; 1.4	0.4 ± 3.7; 3.7	
Zn-65	-3.0 ± 4.0; 4.0	-0.2 ± 3.3; 3.3	-1.4 ± 7.1; 7.1	
Zr/Nb-95	0.0 ± 1.9; 1.9	-2.2 ± 1.8; 1.8	0.8 ± 3.4; 3.4	
Cs-134	-0.7 ± 2.1; 2.1	0.8 ± 2.0; 2.0	4.1 ± 3.8; 3.8	
Cs-137	-0.5 ± 1.6; 1.6	-0.9 ± 1.5; 1.6	0.1 ± 3.2; 3.2	
Ba/La-140	-3.9 ± 2.5; 2.6	-3.9 ± 1.6; 1.7	2.0 ± 1.5; 1.5	
2000 Collection Period	October	November	December	
Lab Code	BDSW-8677	BDSW-9990	BDSW-10455	
Gross Beta	2.9 ± 1.0; 1.1	1.3 ± 1.2; 1.2	5.4 ± 1.8; 2.0	
Mn-54	-0.9 ± 1.1; 1.2	-1.4 ± 1.8; 1.8	-1.4 ± 2.2; 2.2	
Fe-59	0.8 ± 2.4; 2.4	-3.9 ± 3.2; 3.3	-5.4 ± 4.5; 4.6	
Co-58	2.2 ± 1.2; 1.3	-2.2 ± 1.6; 1.6	2.5 ± 2.2; 2.2	
Co-60	-0.1 ± 1.2; 1.2	0.0 ± 1.9; 1.9	-1.5 ± 2.6; 2.6	
Zn-65	-5.2 ± 3.3; 3.4	-2.0 ± 3.5; 3.6	-2.4 ± 3.8; 3.8	
Zr/Nb-95	0.6 ± 1.4; 1.4	-1.2 ± 1.7; 1.7	-0.2 ± 2.4; 2.4	
Cs-134	-0.7 ± 1.4; 1.4	-0.5 ± 2.1; 2.1	1.3 ± 2.6; 2.6	
Cs-137	-0.3 ± 1.4; 1.4	1.2 ± 1.5; 1.5	0.0 ± 1.9; 1.9	
Ba/La-140	3.0 ± 1.2; 1.3	-0.1 ± 1.8; 1.8	1.7 ± 2.6; 2.6	

<sup>a</sup> High result; station notified. Gross beta repeat result = 5.9±1.3;1.5 pCi/L.

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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				
<u>BD-25 (C) Kankakee River, Upstream</u>				
2000 Collection Period	January	February	March	
Lab Code	BDSW-636	BDSW-1007	BDSW-2077	
Gross Beta	6.3 ± 1.8; 2.1	7.0 ± 1.9; 2.2	2.5 ± 1.5; 1.5	
Mn-54	0.1 ± 2.0; 2.0	-0.9 ± 1.8; 1.8	-0.3 ± 1.7; 1.7	
Fe-59	3.2 ± 4.3; 4.4	-2.5 ± 2.7; 2.8	2.3 ± 2.6; 2.6	
Co-58	-0.3 ± 2.1; 2.1	-1.0 ± 1.7; 1.7	0.3 ± 1.5; 1.5	
Co-60	4.7 ± 2.0; 2.1	5.2 ± 2.5; 2.6	0.9 ± 1.3; 1.3	
Zn-65	2.2 ± 3.9; 3.9	-0.9 ± 2.7; 2.7	-0.6 ± 3.1; 3.1	
Zr/Nb-95	2.2 ± 2.1; 2.1	-1.5 ± 2.2; 2.2	0.4 ± 1.5; 1.5	
Cs-134	-0.4 ± 2.1; 2.1	-1.2 ± 1.9; 2.0	-0.3 ± 1.9; 1.9	
Cs-137	0.1 ± 2.2; 2.2	1.4 ± 1.7; 1.7	0.1 ± 1.3; 1.3	
Ba/La-140	0.4 ± 2.2; 2.2	0.4 ± 1.7; 1.7	-2.9 ± 2.0; 2.1	
2000 Collection Period	April	May	June	
Lab Code	BDSW-3022	BDSW-3899	BDSW-4603	
Gross Beta	2.9 ± 1.4; 1.5	3.3 ± 1.5; 1.6	3.8 ± 1.5; 1.6	
Mn-54	-0.7 ± 1.1; 1.1	-0.3 ± 0.6; 0.6	0.8 ± 1.7; 1.7	
Fe-59	0.9 ± 2.0; 2.0	-0.4 ± 1.0; 1.0	-0.9 ± 3.1; 3.1	
Co-58	-0.8 ± 0.9; 0.9	-0.3 ± 0.6; 0.6	-0.6 ± 1.3; 1.3	
Co-60	-0.4 ± 1.3; 1.3	-0.0 ± 0.5; 0.5	1.8 ± 1.7; 1.7	
Zn-65	0.1 ± 2.5; 2.5	0.3 ± 1.2; 1.2	-8.6 ± 3.8; 4.0	
Zr/Nb-95	-1.0 ± -0.9; 0.9	0.1 ± 0.6; 0.6	-0.4 ± 1.6; 1.6	
Cs-134	-0.3 ± 1.2; 1.2	0.9 ± 0.7; 0.7	-0.4 ± 1.5; 1.5	
Cs-137	0.5 ± 1.0; 1.0	0.3 ± 0.5; 0.5	0.3 ± 1.4; 1.4	
Ba/La-140	2.9 ± 1.3; 1.4	-1.9 ± 0.7; 0.7	0.8 ± 1.8; 1.8	

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Table 7.	Surface Water
Collection:	Monthly composites of weekly collections
ODCM-	Gross Beta = 4, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30,
Required LLDs:	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

2000 Collection Period	July	August	September
Lab Code	BDSW-5518	BDSW-6568	BDSW-7480
Gross Beta	4.3 ± 1.6; 1.7	3.9 ± 1.6; 1.7	7.4 ± 1.9; 2.2
Mn-54	0.9 ± 1.9; 1.9	1.4 ± 2.4; 2.4	2.7 ± 2.8; 2.8
Fe-59	-0.8 ± 3.8; 3.8	-1.6 ± 5.2; 5.2	-8.1 ± 6.0; 6.1
Co-58	0.7 ± 1.8; 1.8	0.2 ± 2.6; 2.6	0.8 ± 3.5; 3.5
Co-60	-1.4 ± 2.2; 2.2	2.1 ± 2.8; 2.8	1.3 ± 3.9; 3.9
Zn-65	5.0 ± 4.1; 4.1	1.8 ± 4.6; 4.6	-0.1 ± 5.8; 5.8
Zr/Nb-95	0.5 ± 2.1; 2.1	0.6 ± 2.3; 2.4	1.8 ± 2.9; 2.9
Cs-134	0.0 ± 2.2; 2.2	2.8 ± 2.6; 2.7	1.7 ± 3.5; 3.5
Cs-137	1.5 ± 2.1; 2.1	0.3 ± 2.2; 2.2	-0.7 ± 3.6; 3.6
Ba/La-140	-0.5 ± 1.9; 1.9	-0.7 ± 2.8; 2.8	1.6 ± 2.2; 2.2
2000 Collection Period	October	November	December
Lab Code	BDSW-8678	BDSW-9991,2	BDSW-10456
Gross Beta	4.4 ± 1.0; 1.2	3.0 ± 0.9; 0.9	8.8 ± 2.0; 2.4
Mn-54	-0.4 ± 1.0; 1.0	-0.1 ± 1.6; 1.6	-0.6 ± 1.6; 1.6
Fe-59	-2.3 ± 2.6; 2.6	-0.3 ± 3.2; 3.2	-1.8 ± 3.6; 3.6
Co-58	0.4 ± 1.0; 1.0	-0.0 ± 1.7; 1.7	-0.0 ± 1.5; 1.5
Co-60	0.2 ± 1.2; 1.2	0.6 ± 1.9; 1.9	1.4 ± 1.5; 1.5
Zn-65	-6.1 ± 2.8; 2.9	-0.9 ± 3.8; 3.8	-1.2 ± 3.2; 3.3
Zr/Nb-95	-0.3 ± 1.2; 1.2	-0.3 ± 1.6; 1.6	-3.2 ± 1.7; 1.8
Cs-134	0.3 ± 1.2; 1.2	0.2 ± 2.1; 2.1	0.0 ± 1.9; 1.9
Cs-137	0.5 ± 1.1; 1.1	-0.5 ± 1.9; 1.9	1.5 ± 1.7; 1.7
Ba/La-140	-1.2 ± 1.2; 1.2	-0.2 ± 1.9; 1.9	1.2 ± 1.8; 1.8

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Table 7. Surface Water  
Collection: Quarterly composites of weekly collections  
ODCM-  
Required LLD: H-3 = 200 pCi/L  
Units: pCi/L

2000 Collection Period	<u>Sample Description and Concentration</u>	
	Lab Code	Tritium

## BD-10 Kankakee River, Downtream

1st Quarter	BDSW- 1932	162 ± 99; 102
2nd Quarter	BDSW- 4534	149 ± 95; 97
3rd Quarter	BDSW- 7166	1,484 ± 140; 246
4th Quarter	BDSW- 10877	200 ± 90; 94

## BD-25 (C) Kankakee River, Upstream

1st Quarter	BDSW- 1933	75 ± 92; 93
2nd Quarter	BDSW- 4536	113 ± 91; 92
3rd Quarter	BDSW- 7167	18 ± 90; 90
4th Quarter	BDSW- 10878	21 ± 82; 82

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Table 8. Well Water

Collection: Quarterly  
 ODCM- H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30,  
 Required LLDs: 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	01-07-00	04-07-00	07-13-00	10-12-00
Lab Code	BDWW-129	BDWW-2039 <sup>a</sup>	BDWW-5082	BDWW-7842
H-3	53 ± 77; 77	44 ± 81; 81	67 ± 90; 90	49 ± 91; 91
Mn-54	0.7 ± 2.7; 2.7	0.7 ± 1.3; 1.3	-0.4 ± 1.1; 1.2	0.1 ± 3.2; 3.2
Fe-59	2.5 ± 4.5; 4.5	-1.1 ± 2.9; 2.9	-2.2 ± 2.3; 2.3	-3.4 ± 6.0; 6.0
Co-58	-1.2 ± 2.7; 2.7	1.2 ± 1.4; 1.4	0.4 ± 1.1; 1.1	0.5 ± 2.5; 2.5
Co-60	5.9 ± 2.9; 3.0	-1.7 ± 1.5; 1.6	0.6 ± 1.3; 1.3	2.6 ± 3.5; 3.5
Zn-65	2.4 ± 5.4; 5.4	-4.4 ± 3.5; 3.5	-3.0 ± 2.3; 2.3	1.4 ± 6.5; 6.5
Zr/Nb-95	0.3 ± 6.0; 6.0	-3.5 ± 1.4; 1.5	-0.9 ± 1.2; 1.2	2.7 ± 2.8; 2.8
Cs-134	1.5 ± 3.2; 3.2	1.2 ± 1.4; 1.4	0.8 ± 1.4; 1.4	2.7 ± 3.2; 3.2
Cs-137	-0.7 ± 2.8; 2.8	-0.4 ± 1.4; 1.4	-0.4 ± 1.3; 1.3	1.5 ± 2.7; 2.7
Ba/La-140	4.2 ± 2.8; 2.9	1.6 ± 1.4; 1.4	-1.0 ± 1.4; 1.4	-0.8 ± 3.8; 3.8

### BD-34 Gibson Well

Date Collected	01-07-00	04-01-00	07-13-00	10-12-00
Lab Code	BDWW-130	BDWW-1948	BDWW-5083	BDWW-7843
H-3	455 ± 94; 113	541 ± 112; 134	497 ± 107; 126	360 ± 104; 115
Mn-54	-2.3 ± 2.0; 2.0	0.3 ± 1.6; 1.6	-0.2 ± 1.3; 1.3	-0.8 ± 2.4; 2.4
Fe-59	-0.2 ± 4.4; 4.4	1.2 ± 3.7; 3.7	0.1 ± 2.4; 2.4	-0.3 ± 4.8; 4.8
Co-58	1.5 ± 2.2; 2.2	0.5 ± 1.7; 1.7	-1.1 ± 1.3; 1.3	-0.4 ± 2.2; 2.2
Co-60	-0.3 ± 2.7; 2.7	2.1 ± 1.9; 1.9	1.7 ± 1.5; 1.5	0.8 ± 3.0; 3.0
Zn-65	1.4 ± 4.4; 4.4	-3.3 ± 3.6; 3.6	1.5 ± 2.5; 2.5	0.3 ± 5.1; 5.1
Zr/Nb-95	1.5 ± 2.2; 2.2	-1.5 ± 1.7; 1.7	-0.9 ± 1.3; 1.3	-1.1 ± 2.6; 2.6
Cs-134	-1.4 ± 2.5; 2.5	2.2 ± 1.9; 1.9	-0.0 ± 1.4; 1.4	0.6 ± 3.1; 3.1
Cs-137	-0.4 ± 2.2; 2.2	-0.2 ± 1.7; 1.7	-0.1 ± 1.1; 1.1	-1.9 ± 2.9; 2.9
Ba/La-140	3.0 ± 2.5; 2.5	0.6 ± 1.7; 1.7	1.4 ± 1.6; 1.7	-5.1 ± 3.7; 3.8

<sup>a</sup> Sample not available on 04-01-2000; building closed.

# BRAIDWOOD

Table 8.	Well Water
Collection:	Quarterly
ODCM-	H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30,
Required LLDs:	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	01-07-00	04-01-00	07-13-00	10-12-00
Lab Code	BDWW-131	BDWW-1949	BDWW-5084	BDWW-7844,5
H-3	28 ± 92; 92	45 ± 93; 93	40 ± 89; 89	8 ± 55; 56
Mn-54	0.2 ± 2.2; 2.2	0.5 ± 1.7; 1.7	0.1 ± 0.8; 0.8	1.2 ± 1.8; 1.8
Fe-59	-0.2 ± 3.9; 3.9	-0.9 ± 3.1; 3.1	0.0 ± 1.5; 1.5	0.2 ± 3.1; 3.1
Co-58	-1.7 ± 2.0; 2.1	1.8 ± 1.9; 1.9	0.3 ± 0.7; 0.7	-0.1 ± 1.9; 1.9
Co-60	0.6 ± 2.1; 2.1	0.5 ± 1.6; 1.6	1.1 ± 0.9; 0.9	-0.0 ± 2.0; 2.0
Zn-65	-3.0 ± 4.5; 4.5	2.3 ± 3.4; 3.4	0.5 ± 1.5; 1.5	-2.4 ± 4.1; 4.1
Zr/Nb-95	-0.1 ± 2.4; 2.4	0.4 ± 1.6; 1.6	-0.4 ± 0.8; 0.8	-0.1 ± 1.6; 1.6
Cs-134	-3.1 ± 2.3; 2.3	0.7 ± 1.8; 1.8	0.6 ± 1.0; 1.0	-1.8 ± 2.2; 2.2
Cs-137	-1.9 ± 2.4; 2.4	1.2 ± 1.7; 1.7	0.3 ± 0.7; 0.7	0.4 ± 1.6; 1.6
Ba/La-140	4.2 ± 2.5; 2.6	-5.0 ± 2.2; 2.4	0.3 ± 0.9; 0.9	-1.2 ± 2.3; 2.4

### BD-36 Hutton Well

Date Collected	01-07-00	04-01-00	07-13-00	10-12-00
Lab Code	BDWW-132 <sup>a</sup>	BDWW-1950	BDWW-5085	BDWW-7846
H-3	471 ± 122; 138	484 ± 108; 127	526 ± 108; 129	435 ± 96; 113
Mn-54	-0.9 ± 1.4; 1.4	1.7 ± 1.8; 1.8	0.4 ± 1.1; 1.1	-0.4 ± 2.1; 2.1
Fe-59	0.8 ± 2.4; 2.4	-2.3 ± 3.3; 3.3	-1.4 ± 2.2; 2.2	0.5 ± 3.9; 3.9
Co-58	-0.1 ± 1.4; 1.4	-1.3 ± 1.6; 1.6	-0.8 ± 1.1; 1.1	-1.7 ± 2.1; 2.2
Co-60	1.5 ± 1.4; 1.4	0.7 ± 2.0; 2.0	0.1 ± 1.1; 1.1	1.4 ± 2.3; 2.3
Zn-65	-1.2 ± 2.8; 2.8	-1.3 ± 4.2; 4.2	-0.7 ± 2.1; 2.1	0.8 ± 3.1; 3.1
Zr/Nb-95	-0.4 ± 1.3; 1.3	-0.9 ± 1.9; 1.9	-1.3 ± 1.1; 1.1	1.3 ± 2.2; 2.2
Cs-134	1.3 ± 1.5; 1.5	0.4 ± 2.3; 2.3	1.1 ± 1.3; 1.3	0.4 ± 2.7; 2.7
Cs-137	-0.9 ± 1.7; 1.7	-1.2 ± 2.1; 2.1	-0.0 ± 0.9; 0.9	0.4 ± 1.8; 1.8
Ba/La-140	6.2 ± 1.5; 1.7	0.7 ± 1.8; 1.8	-3.4 ± 1.5; 1.5	-1.0 ± 2.8; 2.8

<sup>a</sup> Resampled for tritium only on 03-18-2000; see page III-5, Table 2.0, "Listing of Sample Anomalies" for details.

# BRAIDWOOD

Table 8.	Well Water
	Collection: Quarterly
	ODCM- H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15, Zn-65 = 30,
	Required LLDs: 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	01-07-00	04-01-00	07-13-00	10-12-00
Lab Code	BDWW-133	BDWW-1951	BDWW-5086	BDWW-7847
H-3	-26 ± 90; 90	69 ± 92; 93	37 ± 112; 112	-11 ± 77; 77
Mn-54	-0.3 ± 2.3; 2.3	0.2 ± 1.5; 1.5	-0.3 ± 0.9; 0.9	-1.3 ± 2.6; 2.6
Fe-59	2.6 ± 5.1; 5.1	1.7 ± 2.7; 2.7	0.0 ± 1.6; 1.6	-2.3 ± 4.7; 4.7
Co-58	1.0 ± 2.1; 2.1	-0.4 ± 1.4; 1.4	-0.7 ± 1.0; 1.0	-2.2 ± 2.3; 2.3
Co-60	1.1 ± 2.9; 2.9	0.9 ± 1.1; 1.1	-0.3 ± 1.2; 1.2	-3.2 ± 3.2; 3.2
Zn-65	-0.3 ± 6.0; 6.0	0.3 ± 2.5; 2.5	1.5 ± 2.1; 2.1	1.2 ± 5.3; 5.3
Zr/Nb-95	2.8 ± 2.0; 2.0	1.0 ± 1.4; 1.4	-0.6 ± 1.2; 1.2	-0.6 ± 2.6; 2.6
Cs-134	-1.1 ± 2.9; 2.9	1.4 ± 1.6; 1.6	-0.3 ± 1.2; 1.2	1.7 ± 2.7; 2.7
Cs-137	2.8 ± 2.6; 2.7	-0.4 ± 1.3; 1.3	0.1 ± 1.0; 1.0	1.0 ± 2.4; 2.4
Ba/La-140	-4.2 ± 3.3; 3.4	4.4 ± 1.6; 1.7	-1.5 ± 1.2; 1.2	11.2 ± 6.7; 6.9

## BRAIDWOOD

Table 9.	Public Water
Collection:	Monthly composites of weekly collections
ODCM-	Gross Beta = 4, H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15,
Required LLDs:	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

2000 Collection Period	January	February	March
Lab Code	BDPW-478	BDPW-1004	BDPW-1817
Gross Beta	2.4 ± 1.4; 1.4	3.2 ± 1.5; 1.6	3.3 ± 1.6; 1.6
H-3	4,176 ± 190; 599	3,179 ± 184; 470	1,417 ± 137; 237
Mn-54	-0.6 ± 2.0; 2.0	-2.1 ± 2.8; 2.8	0.6 ± 1.1; 1.1
Fe-59	0.4 ± 4.0; 4.0	-2.9 ± 6.6; 6.6	1.9 ± 2.2; 2.2
Co-58	-1.3 ± 2.0; 2.0	0.7 ± 2.9; 2.9	-0.6 ± 1.1; 1.1
Co-60	1.5 ± 2.6; 2.6	-1.6 ± 3.5; 3.5	-0.9 ± 1.2; 1.2
Zn-65	-0.6 ± 4.4; 4.4	-0.5 ± 7.5; 7.5	1.3 ± 2.5; 2.5
Zr/Nb-95	-2.2 ± 2.1; 2.1	0.3 ± 2.5; 2.5	0.1 ± 1.3; 1.3
Cs-134	-1.1 ± 2.3; 2.3	3.2 ± 2.7; 2.7	1.1 ± 1.3; 1.3
Cs-137	-0.8 ± 2.2; 2.2	-0.1 ± 3.1; 3.1	0.1 ± 1.0; 1.0
Ba/La-140	1.5 ± 3.0; 3.0	-4.3 ± 4.5; 4.5	-0.1 ± 1.3; 1.3
2000 Collection Period	April	May	June
Lab Code	BDPW-2754	BDPW-3678	BDPW-4535
Gross Beta	2.9 ± 1.4; 1.4	2.3 ± 1.4; 1.4	2.5 ± 1.4; 1.5
H-3	644 ± 103; 135	1,433 ± 137; 238	109 ± 93; 94
Mn-54	0.3 ± 0.7; 0.7	0.7 ± 1.8; 1.8	-0.2 ± 1.1; 1.1
Fe-59	-1.3 ± 1.3; 1.3	-0.1 ± 2.9; 2.9	4.1 ± 2.1; 2.1
Co-58	-0.5 ± 0.7; 0.7	-0.3 ± 1.9; 1.9	-0.2 ± 1.1; 1.1
Co-60	0.4 ± 0.7; 0.7	-1.0 ± 1.6; 1.6	0.3 ± 1.2; 1.2
Zn-65	-1.3 ± 1.4; 1.4	-3.1 ± 3.3; 3.3	-9.0 ± 3.2; 3.5
Zr/Nb-95	-0.3 ± 0.7; 0.7	-1.6 ± 1.7; 1.7	-1.9 ± 1.3; 1.4
Cs-134	1.3 ± 0.8; 0.8	2.4 ± 2.1; 2.2	0.1 ± 1.3; 1.3
Cs-137	0.2 ± 0.7; 0.7	0.7 ± 1.5; 1.5	0.4 ± 1.3; 1.3
Ba/La-140	1.5 ± 0.7; 0.8	-4.6 ± 2.2; 2.3	-0.8 ± 1.2; 1.2



BRAIDWOOD

Table 9. Public Water  
 Collection: Monthly composites of weekly collections  
 ODCM- Gross Beta = 4, H-3 = 200, Mn-54 = 15, Fe-59 = 30, Co-58 = 15, Co-60 = 15,  
 Required LLDs: 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			
<u>BD-22 Wilmington</u>			
2000 Collection Period	July	August	September
Lab Code	BDPW-5512	BDPW-6341,2	BDPW-7172
Gross Beta	4.0 ± 1.1; 1.3	2.5 ± 1.0; 1.0	4.9 ± 1.6; 1.8
H-3	252 ± 99; 105	1,122 ± 93; 143	1,881 ± 151; 297
Mn-54	-0.1 ± 2.6; 2.6	-0.9 ± 1.8; 1.8	-0.6 ± 3.1; 3.1
Fe-59	0.8 ± 6.4; 6.4	4.4 ± 3.3; 3.3	1.5 ± 5.1; 5.1
Co-58	-0.5 ± 3.2; 3.2	-0.1 ± 1.8; 1.8	-0.2 ± 2.9; 2.9
Co-60	0.4 ± 4.2; 4.2	1.5 ± 2.2; 2.2	2.9 ± 2.7; 2.7
Zn-65	6.6 ± 7.2; 7.2	-1.8 ± 3.7; 3.7	1.2 ± 4.9; 4.9
Zr/Nb-95	-0.4 ± 3.7; 3.7	0.2 ± 1.5; 1.5	1.3 ± 2.8; 2.8
Cs-134	0.5 ± 3.8; 3.8	0.5 ± 2.1; 2.1	-1.0 ± 3.2; 3.2
Cs-137	-1.9 ± 2.7; 2.7	1.4 ± 1.6; 1.7	1.0 ± 2.9; 2.9
Ba/La-140	-11.2 ± 4.0; 4.3	0.1 ± 2.6; 2.6	-1.2 ± 2.8; 2.9
2000 Collection Period	October	November	December
Lab Code	BDPW-8427	BDPW-9418 <sup>a</sup>	BDPW-10457
Gross Beta	2.9 ± 1.0; 1.1	9.9 ± 1.9; 2.4	4.1 ± 1.5; 1.6
H-3	1,586 ± 157; 267	615 ± 83; 118	438 ± 98; 115
Mn-54	0.9 ± 1.6; 1.6	-1.2 ± 3.9; 3.9	0.3 ± 1.8; 1.8
Fe-59	1.9 ± 4.3; 4.3	-7.3 ± 5.9; 6.0	-0.1 ± 2.9; 2.9
Co-58	0.6 ± 2.3; 2.4	-1.5 ± 3.8; 3.8	1.1 ± 2.0; 2.0
Co-60	2.8 ± 2.4; 2.4	-1.3 ± 4.3; 4.3	2.0 ± 2.4; 2.5
Zn-65	2.9 ± 4.2; 4.2	8.5 ± 7.2; 7.3	1.5 ± 4.1; 4.1
Zr/Nb-95	-0.8 ± 2.3; 2.3	-3.6 ± 4.2; 4.2	-2.5 ± 2.0; 2.0
Cs-134	0.2 ± 2.3; 2.3	0.5 ± 3.9; 3.9	-1.1 ± 1.8; 1.8
Cs-137	1.5 ± 2.2; 2.2	-0.4 ± 3.6; 3.6	0.6 ± 1.9; 1.9
Ba/La-140	1.8 ± 2.7; 2.7	2.6 ± 4.3; 4.3	-10.6 ± 2.9; 3.2

<sup>a</sup> Gross beta repeated; result = 8.8±1.5 pCi/L.

BRAIDWOOD

MILCH ANIMALS, NEAREST RESIDENCES, AND  
NEAREST LIVESTOCK CENSUS

BRAIDWOOD

MILCH ANIMALS CENSUS, 2000

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 28, 2000

# BRAIDWOOD

## NEAREST LIVESTOCK CENSUS, 2000

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

<u>Sector</u>	<u>Direction</u>	<u>Distance</u>
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	None
K	SSW	5.3 miles
L	SW	1.2 miles
M	WSW	3.8 miles
N	W	1.6 miles
P	WNW	None
Q	NW	None
R	NNW	None

Census conducted by A. Lewis on August 28, 2000

BRAIDWOOD

NEAREST RESIDENCE CENSUS, 2000

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

<u>Sector</u>	<u>Direction</u>	<u>Distance</u>
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 20, 2000

## BRAIDWOOD

### 4.0 TLD DATA\*

\*TLD Data provided by Commonwealth Edison Company.

Date: 25-JAN-01

Environmental Site Report V4 for Braidwood

Page: 1

## Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2000	Quarter 2 2000	Quarter 3 2000	Quarter 4 2000
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## I. INDICATOR LOCATIONS

## a. Air Samplers

BD-02-1	CUSTER PARK	14.6	13.9	14.0	14.3
BD-02-2	CUSTER PARK	14.7	14.4	14.1	15.4
BD-04-1	ESSEX	14.2	13.6	13.3	15.0
BD-04-2	ESSEX	13.6	14.0	13.5	14.3
BD-05-1	GARDNER	17.3	17.4	16.5	17.6
BD-05-2	GARDNER	16.8	16.4	16.0	17.6
BD-06-1	GODLEY	13.6	13.3	12.6	14.1
BD-06-2	GODLEY	13.4	13.6	13.3	14.3
BD-19-1	NEARSITE NW	15.2	15.2	14.6	16.1
BD-19-2	NEARSITE NW	14.9	15.2	14.8	15.2
BD-20-1	NEARSITE N	14.8	14.2	14.0	14.5
BD-20-2	NEARSITE N	15.3	14.1	13.4	15.3
BD-21-1	NEARSITE NE	14.5	14.6	13.6	14.5
BD-21-2	NEARSITE NE	14.3	14.9	14.1	15.8
Air Sampler Mean $\pm$ S.D.		14.8 $\pm$ 1.1	14.6 $\pm$ 1.1	14.1 $\pm$ 1.1	15.3 $\pm$ 1.2
Annual Air Sampler Mean $\pm$ S.D.					14.7 $\pm$ 1.2

## b. Inner Ring (100 Series)

BD-101-3	14.8	14.9	14.2	15.2
BD-101-4	15.1	14.1	13.9	15.2
BD-102-1	14.8	14.3	13.5	14.5
BD-102-2	14.9	14.0	15.4	15.7
BD-103-1	16.0	14.6	15.2	15.4
BD-103-2	15.7	14.3	14.8	16.0
BD-104-1	13.7	13.0	12.9	14.8
BD-104-2	13.9	12.9	13.1	13.9
BD-105-1	14.5	13.6	13.2	14.9
BD-105-2	14.9	14.2	13.9	14.7
BD-106-1	14.9	13.8	13.9	14.4
BD-106-2	14.8	13.6	13.0	15.2
BD-107-1	15.0	14.4	14.7	15.1
BD-107-2	14.9	13.9	13.9	14.4
BD-108-1	14.1	13.4	13.8	14.3
BD-108-2	14.8	14.1	13.5	15.4
BD-109-1	18.1	16.9	15.7	17.5
BD-109-2	17.7	16.9	16.8	17.4
BD-110-1	14.1	13.3	12.9	14.2

Site	Description	Quarter 1 2000	Quarter 2 2000	Quarter 3 2000	Quarter 4 2000
b. Inner Ring (100 Series)					
BD-110-2		16.1	15.5	14.6	15.7
BD-111A-1		14.0	13.6	13.9	14.2
BD-111A-2		14.4	13.9	12.7	14.9
BD-112-1		14.3	13.3	13.2	14.1
BD-112-2		14.4	13.3	13.0	14.9
BD-113A-1		14.2	14.2	13.3	14.8
BD-113A-2		14.8	14.3	14.2	14.9
BD-114-1		14.5	14.2	13.9	14.9
BD-114-2		14.9	14.1	13.9	14.5
BD-115-1		14.8	14.2	14.1	14.2
BD-115-2		15.0	14.4	14.3	15.0
BD-116-1		15.5	15.2	15.0	15.7
BD-116-2		15.0	14.7	13.6	15.4

Inner Ring Mean  $\pm$  S.D.15.0  $\pm$  0.9    14.2  $\pm$  0.9    14.0  $\pm$  0.9    15.0  $\pm$  0.8Annual Inner Ring Mean  $\pm$  S.D.14.6  $\pm$  1.0

## c. Outer Ring (200 Series)

BD-201-1	19.2	19.6	18.1	19.0
BD-201-2	16.8	15.3	14.8	16.3
BD-202-1	14.7	14.6	13.9	14.9
BD-202-2	13.9	15.0	13.4	14.1
BD-203-1	15.5	15.4	15.4	15.6
BD-203-2	14.4	14.2	13.7	14.2
BD-204-1	14.2	13.4	13.2	14.8
BD-204-2	13.6	13.6	12.6	13.9
BD-205-1	14.8	14.5	13.5	14.0
BD-205-2	13.8	13.3	13.3	14.2
BD-206-1	15.0	15.0	14.1	15.0
BD-206-2	15.2	15.0	14.7	15.8
BD-207-1	13.6	14.2	13.6	14.4
BD-207-2	14.1	13.9	13.7	13.9
BD-208-1	14.4	14.7	13.3	14.5
BD-208-2	14.7	14.2	13.5	15.2
BD-209-1	18.5	17.7	16.9	18.8
BD-209-2	19.5	19.1	18.6	19.7
BD-210-1	17.4	16.5	17.2	17.7
BD-210-2	14.9	15.0	14.6	15.5
BD-211-1	18.9	18.8	18.2	19.4
BD-211-2	19.5	18.5	18.2	18.9
BD-212-3	14.5	14.6	13.8	15.5
BD-212-4	18.7	18.3	17.6	18.7
BD-213-3	14.5	13.9	13.2	14.3
BD-213-4	14.4	14.4	13.4	14.4
BD-214-1	14.7	14.8	14.3	16.0
BD-214-2	18.0	17.1	16.5	17.8
BD-215-1	14.5	13.4	13.1	14.6
BD-215-2	13.9	13.3	13.2	14.3
BD-216-1	15.6	15.2	14.8	16.1



Site	Description	Quarter 1 2000	Quarter 2 2000	Quarter 3 2000	Quarter 4 2000
c. Outer Ring (200 Series)					
BD-216-2		16.6	17.1	16.1	16.6
	Outer Ring Mean $\pm$ S.D.	15.7 $\pm$ 1.9	15.4 $\pm$ 1.9	14.8 $\pm$ 1.8	15.9 $\pm$ 1.9
	Annual Outer Ring Mean $\pm$ S.D.				15.5 $\pm$ 1.9
	INDICATOR LOCATION MEAN $\pm$ S.D.	15.2 $\pm$ 1.5	14.8 $\pm$ 1.5	14.4 $\pm$ 1.4	15.4 $\pm$ 1.4
	Annual INDICATOR LOCATION MEAN $\pm$ S.D.				15.0 $\pm$ 1.5

## II. CONTROL LOCATIONS

BD-03-1	COUNTY LINE ROAD	15.2	14.6	13.5	15.6
BD-03-2	COUNTY LINE ROAD	15.6	15.0	14.5	15.7
	CONTROL LOCATION Mean $\pm$ S.D.	15.4 $\pm$ 0.3	14.8 $\pm$ 0.3	14.0 $\pm$ 0.7	15.7 $\pm$ 0.1
	Annual CONTROL LOCATION Mean $\pm$ S.D.				15.0 $\pm$ 0.7

## III. SPECIAL INTEREST LOCATIONS

BD-302-1	RESTRICTED AREA FENCE/NORTH OF DAM	21.6	23.7	22.7	22.7
BD-305-1	FOSSIL AREA	14.8	14.6	14.4	15.1
BD-305-2	HUNTING/FISHING COOLING ACCESS SITE	13.7	12.9	13.0	13.6
BD-309	HUNTING/FISHING COOLING ACCESS SITE	15.5	15.2	14.5	15.8
OSGSP1	OFF-SITE STEAM GENERATOR STORAGE FAC	16.0	16.3	15.5	15.9
OSGSP2	OFF-SITE STEAM GENERATOR STORAGE FAC	17.3	15.6	16.1	15.6
OSGSP3	OFF-SITE STEAM GENERATOR STORAGE FAC	20.0	18.8	19.2	19.7
OSGSP4	OFF-SITE STEAM GENERATOR STORAGE FAC	15.8	15.1	15.3	15.6
OSGSP5	OFF-SITE STEAM GENERATOR STORAGE FAC	16.4	15.5	15.5	16.6
OSGSP6	OFF-SITE STEAM GENERATOR STORAGE FAC	15.9	16.2	14.7	16.6
	SPECIAL INTEREST LOCATION Mean $\pm$ S.D.	16.7 $\pm$ 2.4	16.4 $\pm$ 3.0	16.1 $\pm$ 2.8	16.7 $\pm$ 2.6
	Annual SPECIAL INTEREST LOCATION Mean $\pm$ S.D.				16.5 $\pm$ 2.6

COMMENTS: \*\*\* Indicates lost dosimeter. A portion of the Dose was estimated.

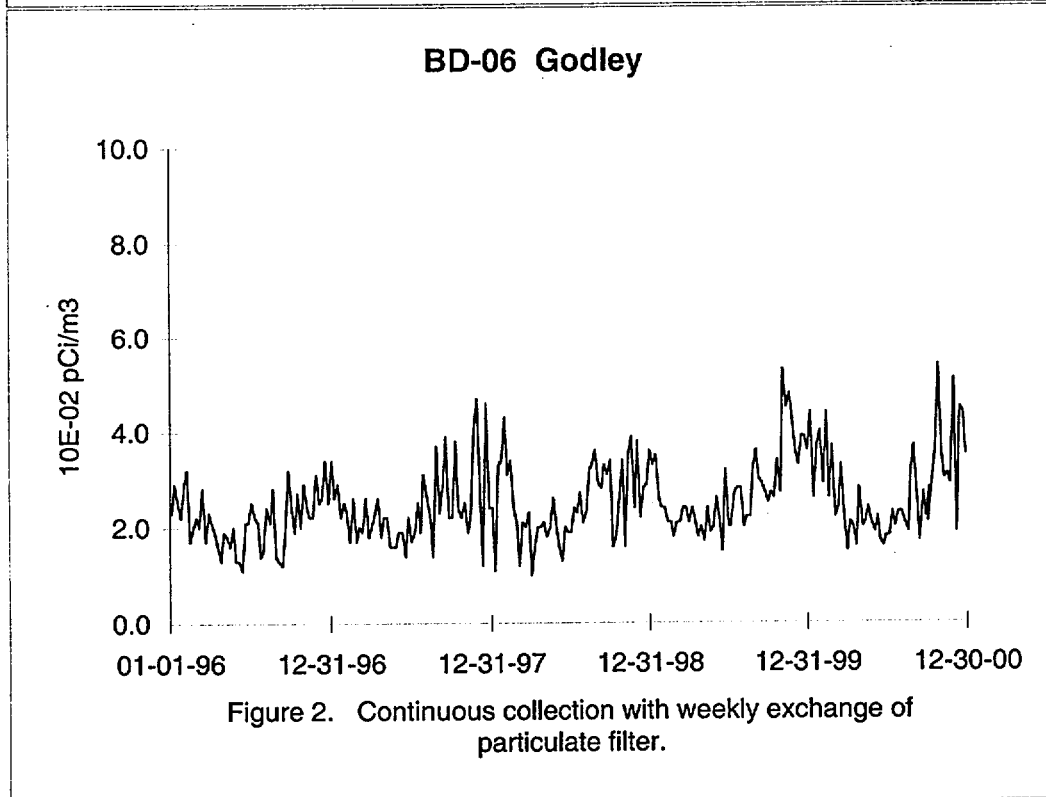
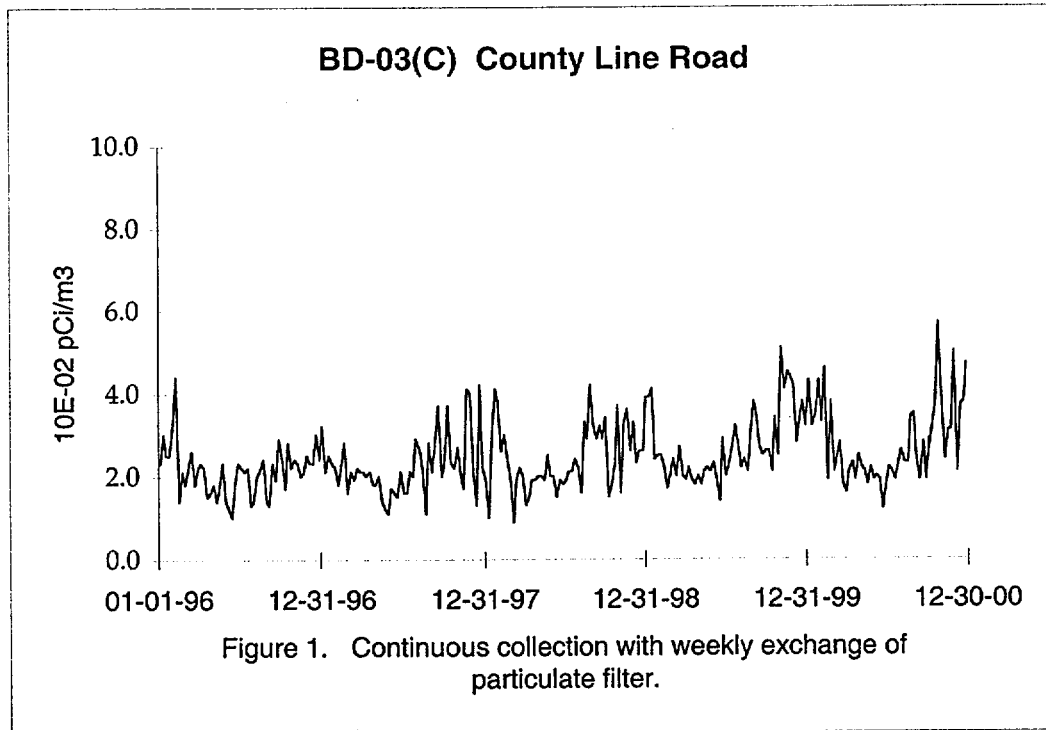
\*# Indicates edited dosimeter. The original Dose was replaced with an estimated value.

"n" (n=2..9) Indicates dose is average of n values. A "+" means more than 9 values.

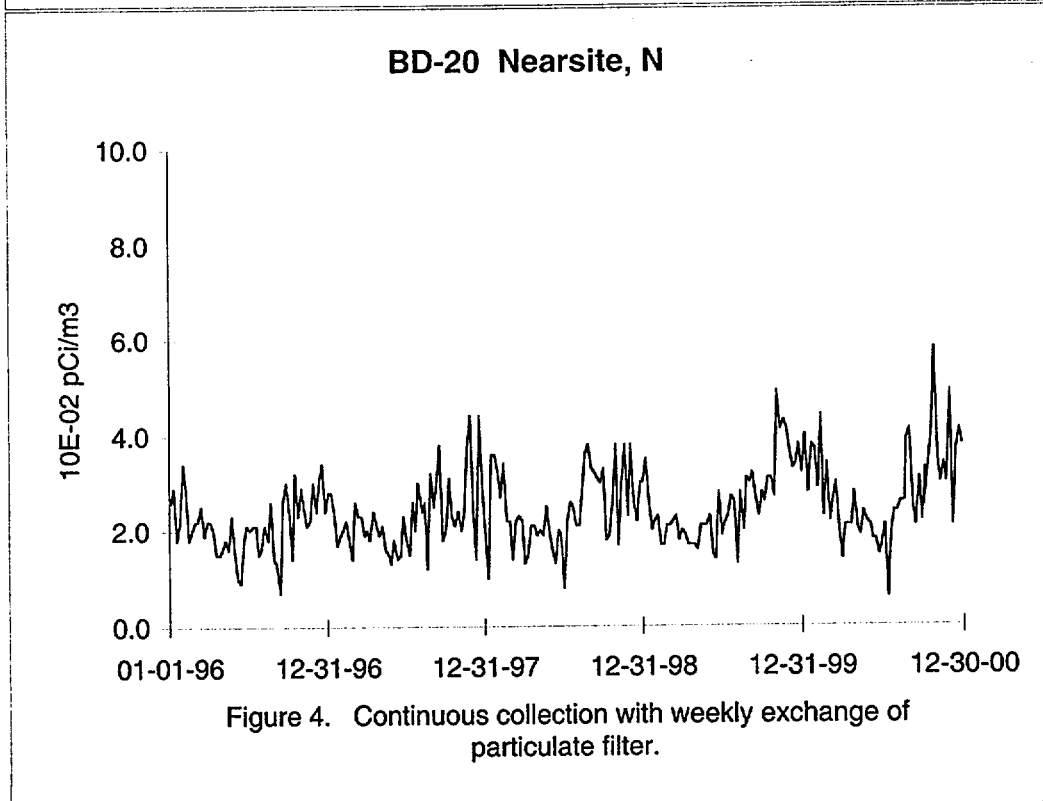
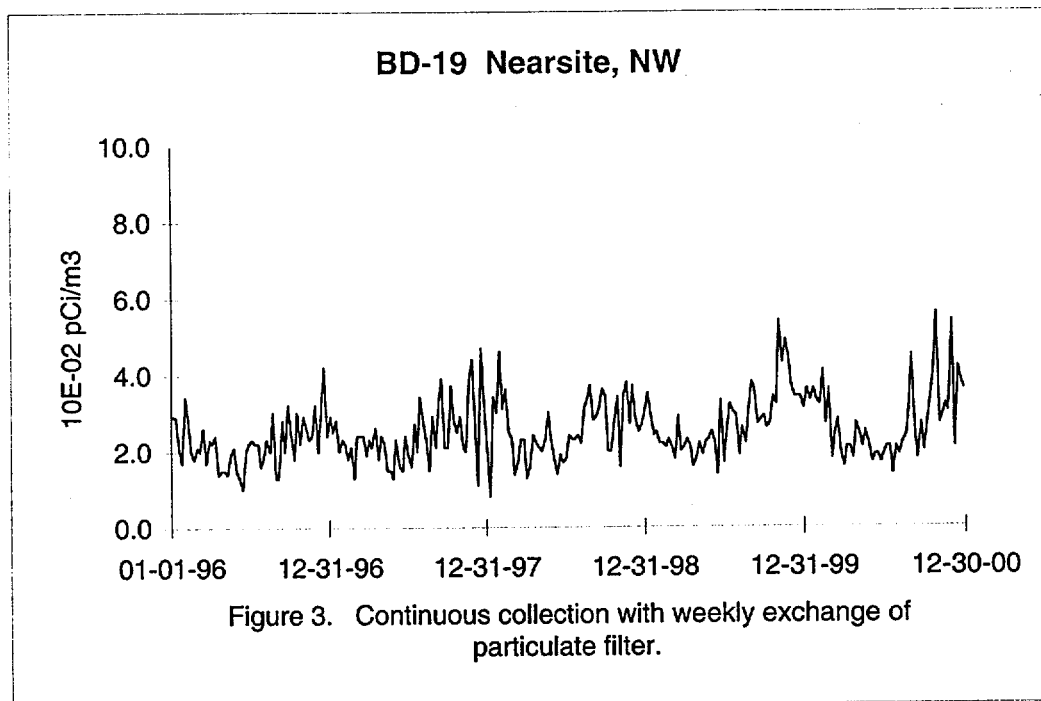
BRAIDWOOD

5.0 GRAPHS OF DATA TRENDS

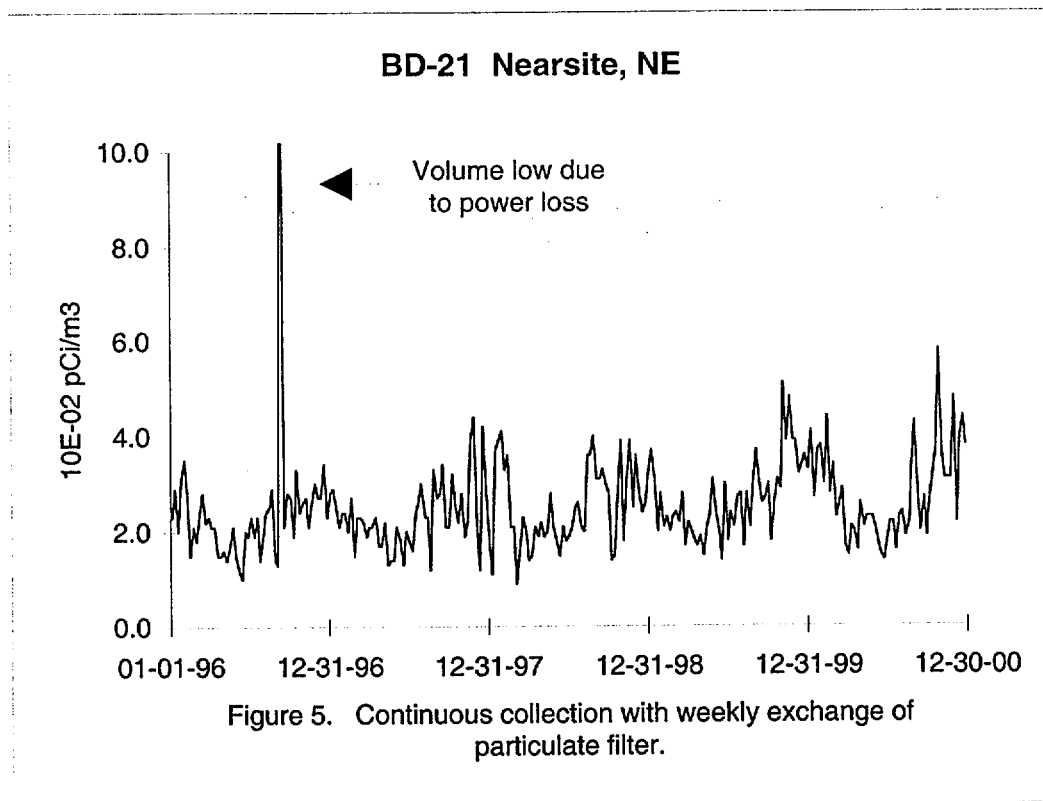
## Air Particulates - Gross Beta



## Air Particulates - Gross Beta



## Air Particulates - Gross Beta



## Surface Water - Gross Beta

**BD-10 Kankakee River, Downstream**

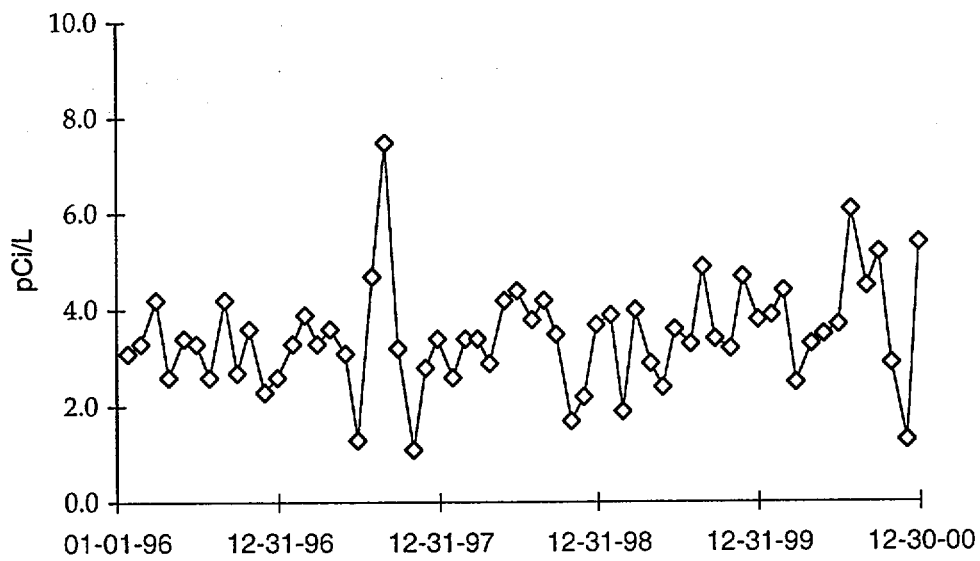


Figure 8. Monthly composites of weekly collections.

**BD-25 (C) Kankakee River, Upstream**

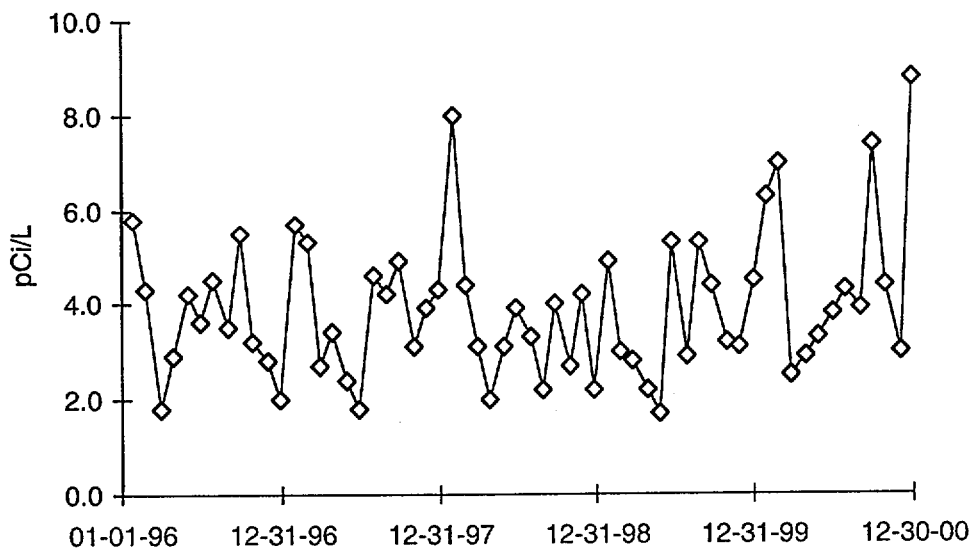


Figure9. Monthly composites of weekly collections.

# Surface Water-Tritium

**BD-10 Kankakee River, Downstream**

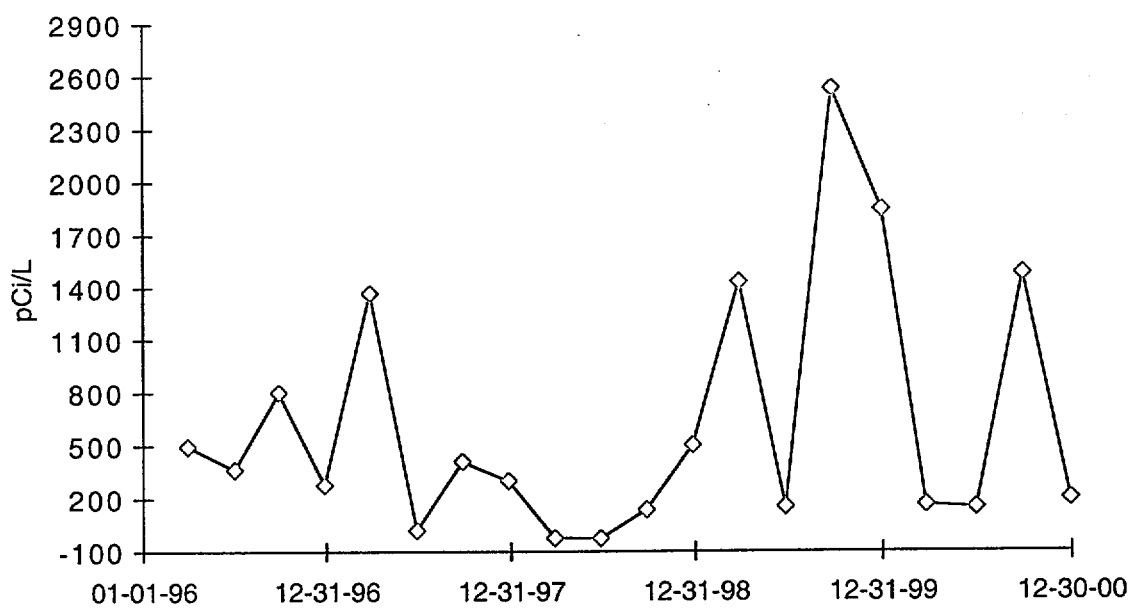


Figure 6. Quarterly composites of weekly collections.

**BD-25 Kankakee River, Upstream**

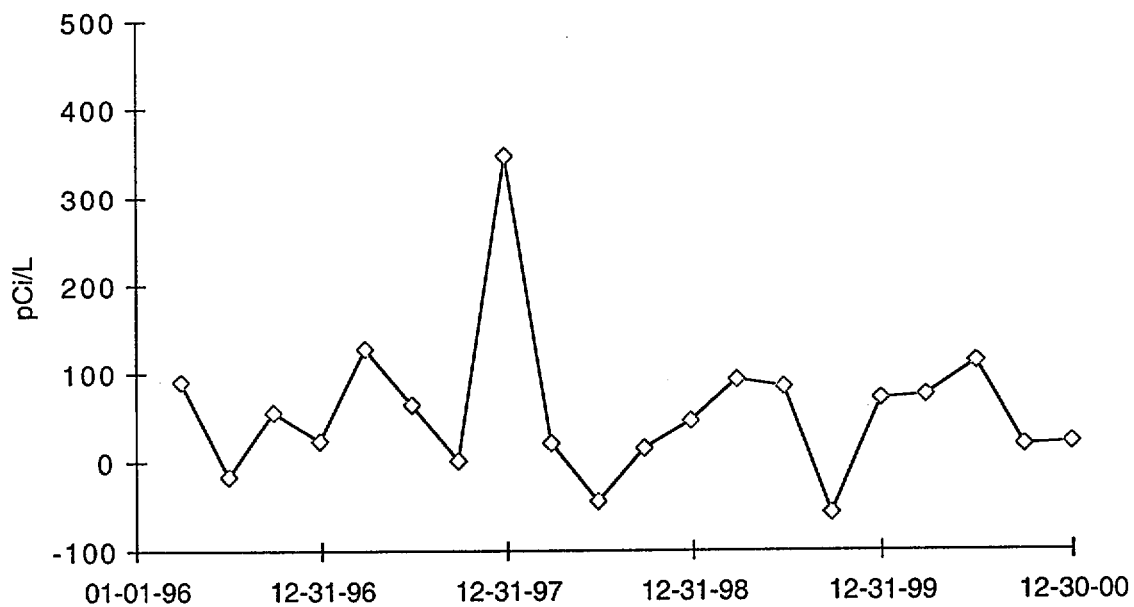


Figure 6. Quarterly composites of weekly collections.

# Well Water-Tritium

**BD-13 Braidwood City Hall Well**

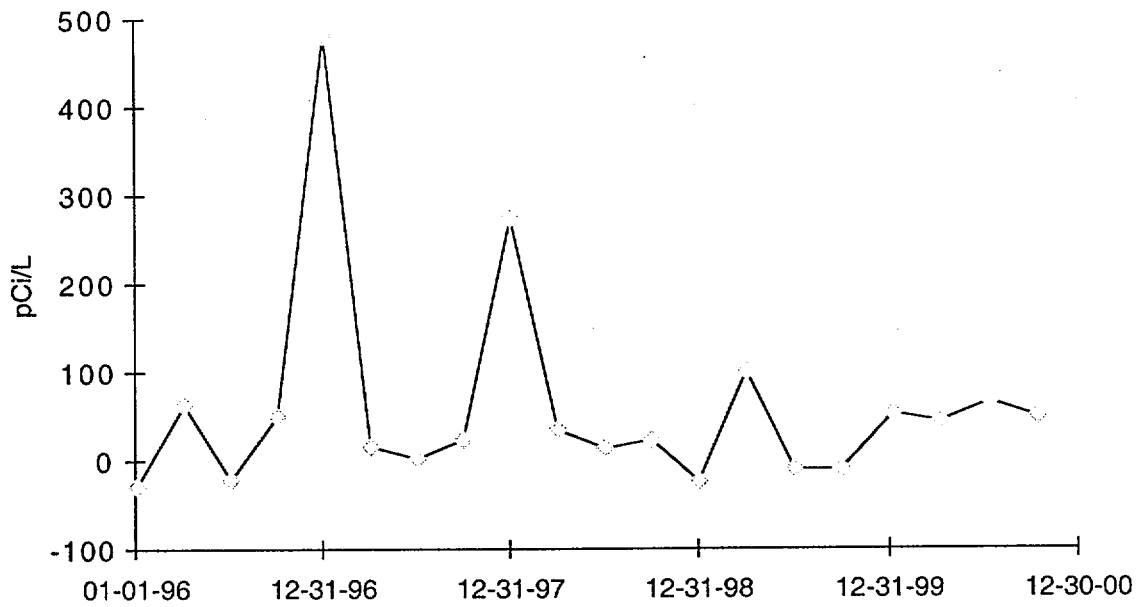


Figure 10. Quarterly collection.

**BD-34 Gibson Well**

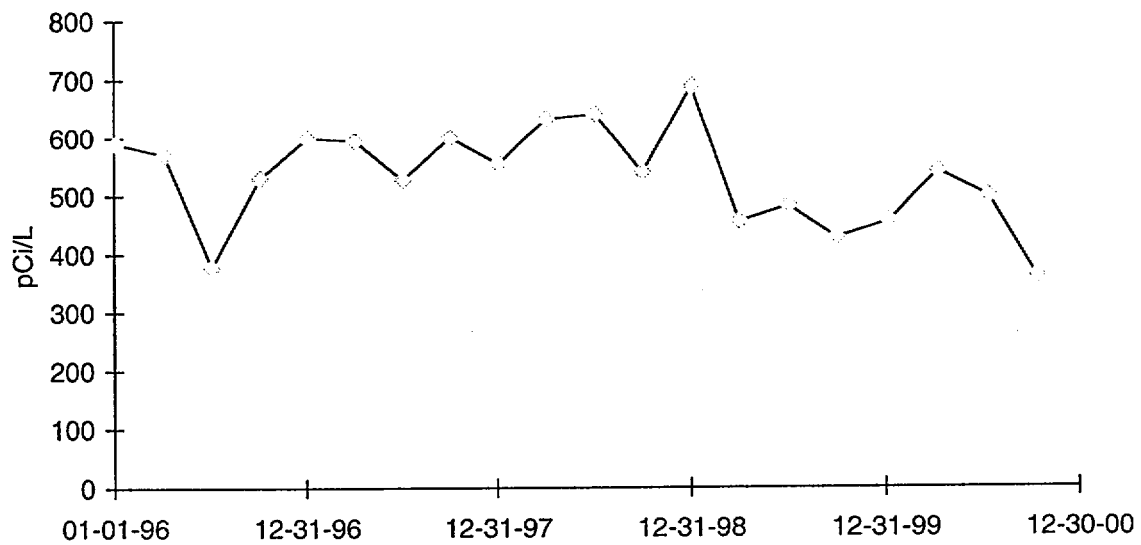
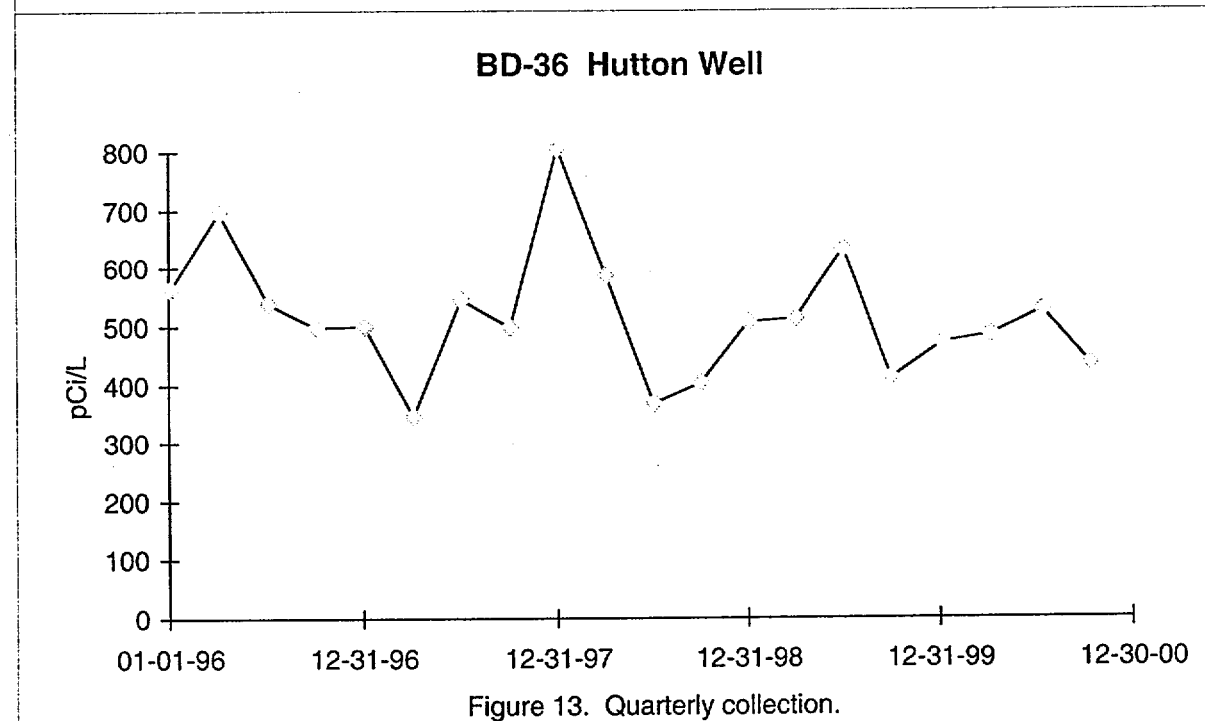
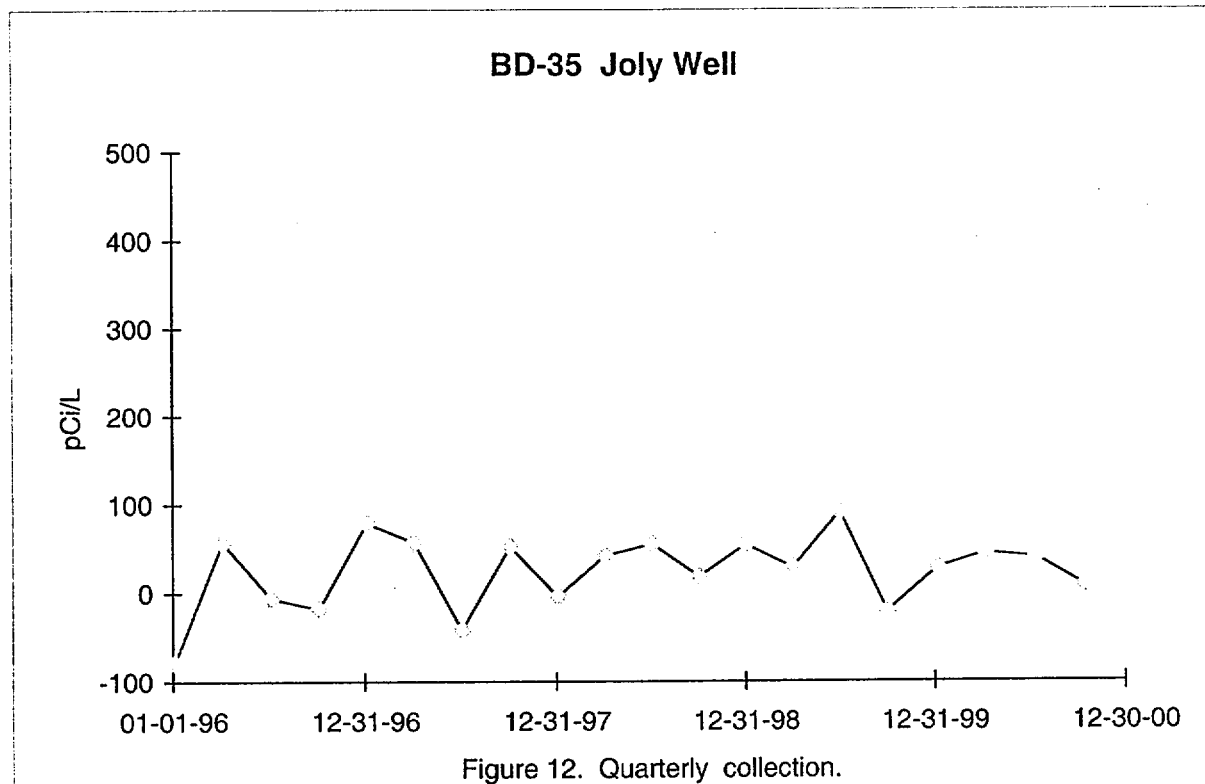


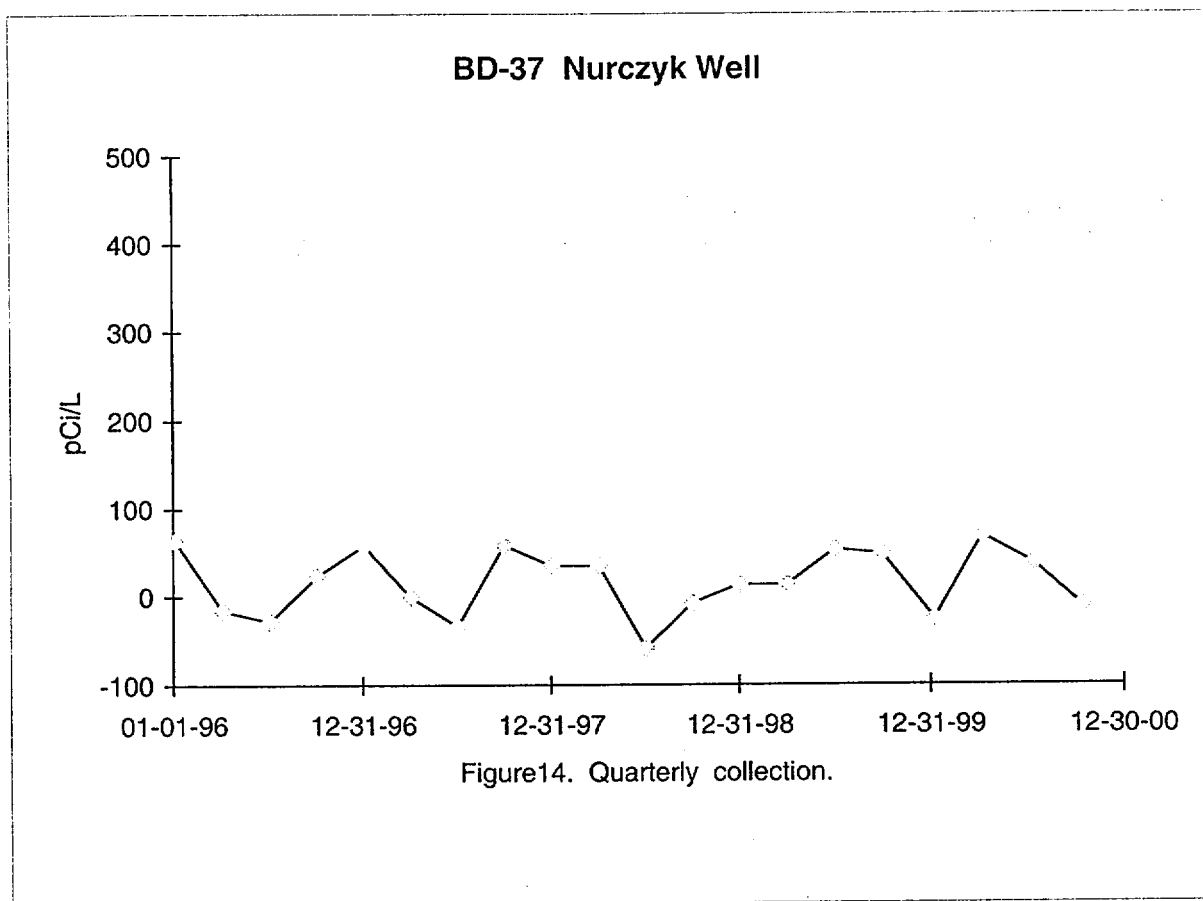
Figure 11. Quarterly collection.



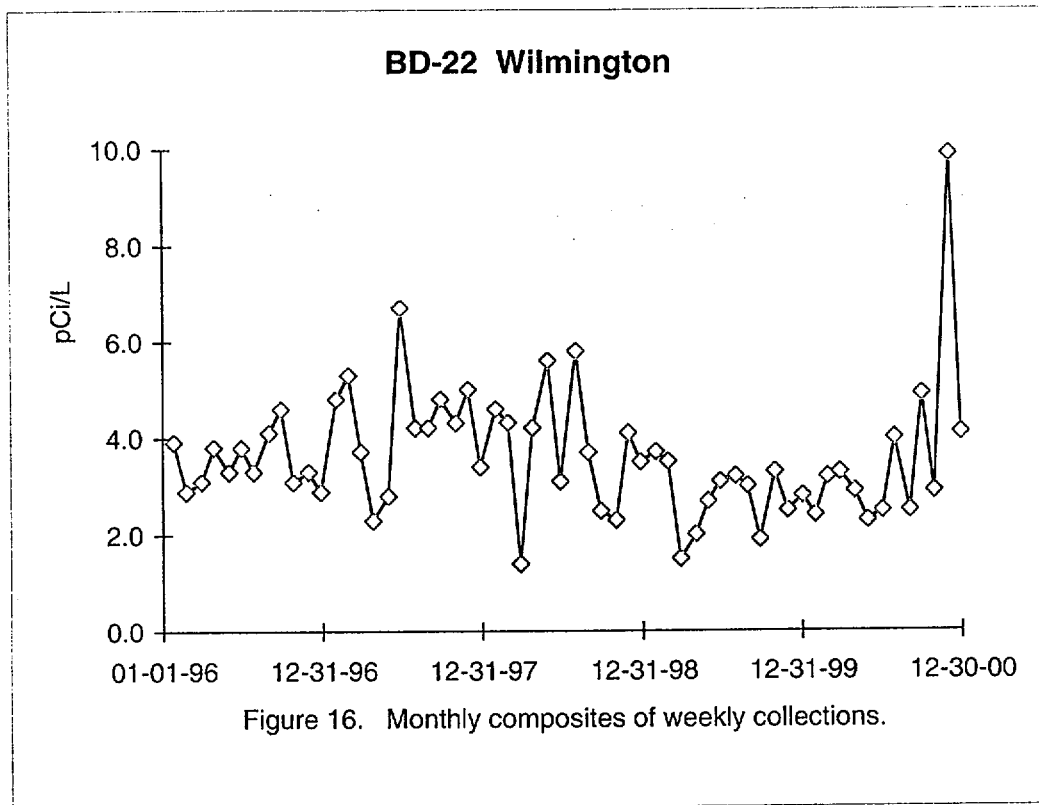
# Well Water-Tritium



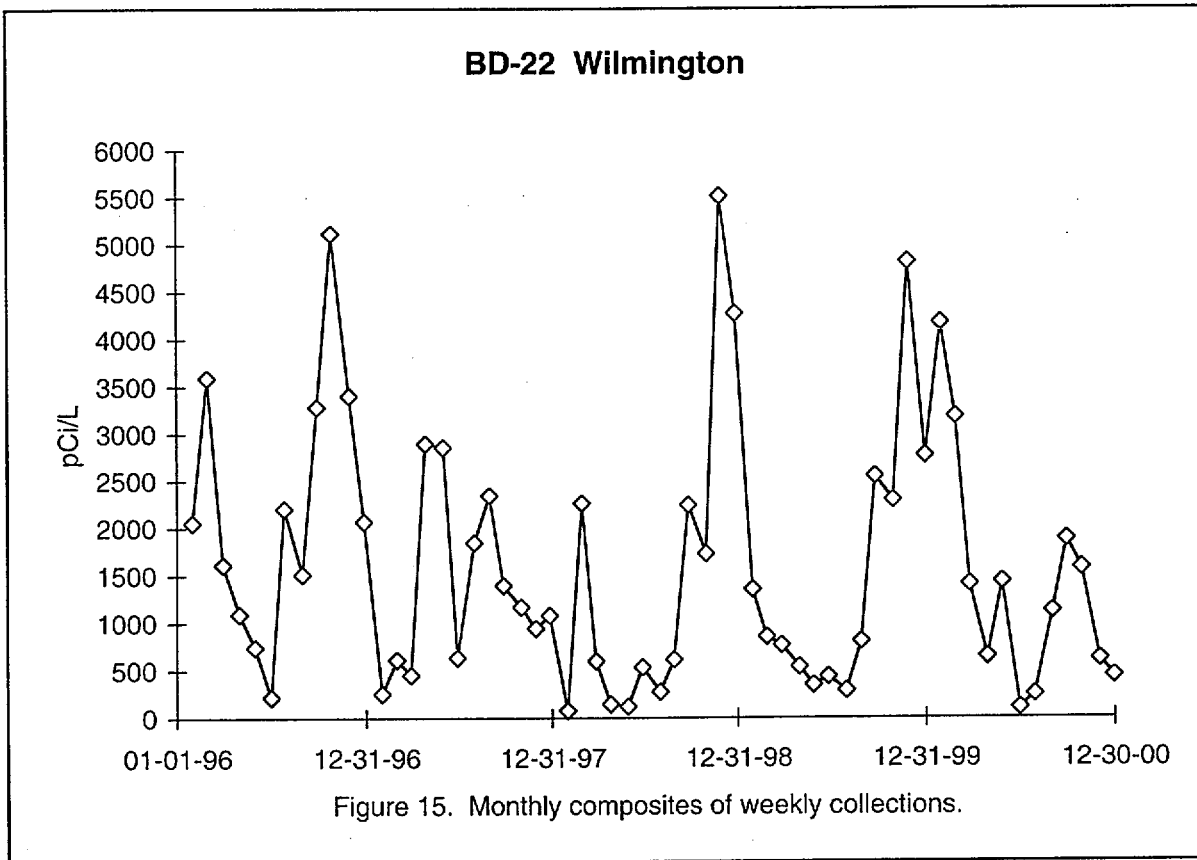
# Well Water-Tritium



## Public Water - Gross Beta



# Public Water-Tritium



APPENDIX IV  
INTERLABORATORY COMPARISON PROGRAM RESULTS

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

January, 2000 through December, 2000

## Appendix V

### Interlaboratory Comparison Program Results

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

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

The results in Table IV-1 were obtained through participation in the environmental sample crosscheck program for milk, water, air filters, and food samples through December 31, 2000. This program was conducted by Environmental Resource Associates and serves to replace studies formerly conducted by the U.S. Environmental Protection Agency Office of Research and Development, National Exposure Research Laboratory Characterization Research Division-Las Vegas, Nevada.

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

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

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

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

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L <sup>b</sup>		
				ERA Result <sup>c</sup> 1s, N=1	Control Limits	Laboratory Results ± 2 Sigma <sup>d</sup>
STW-863	Water	Jan, 2000	Gr. Alpha	25.4 ± 6.4	14.5 - 36.3	39.3 ± 5.2; 7.1
			The analysis was repeated and recalculated with Am-241 efficiency; result of reanalysis 29.32 ± 5.79 pCi/L. Internal spike program results do not indicate a problem.			
STW-863	Water	Jan, 2000	Gr. Beta	42.1 ± 4.2	33.4 - 50.8	40.7 ± 1.2; 6.4
STW-866	Water	Jan, 2000	Sr-89	22.5 ± 5.0	13.8 - 31.2	17.1 ± 2.2; 2.8
STW-866	Water	Jan, 2000	Sr-90	9.6 ± 5.0	0.9 - 18.3	8.1 ± 0.6; 1.0
STW-868	Water	Feb, 2000	Ra-226	8.3 ± 1.2	6.1 - 10.4	7.6 ± 0.5; 0.9
STW-868	Water	Feb, 2000	Ra-228	2.3 ± 0.6	1.3 - 3.2	5.6 ± 1.0; 1.1
			Result of reanalysis: 6.34 ± 0.94. Activity confirmed by gamma spectroscopy (6.00 ± 1.42 pCi/L ).			
STW-868	Water	Feb, 2000	Uranium	6.1 ± 3.0	0.9 - 11.3	5.4 ± 0.2; 0.6
STW-869	Water	Mar, 2000	H-3	23800.0 ± 2380.0	19800.0 - 27800.0	23500.0 ± 306.0; 3210.6
STW-867	Water	Mar, 2000	Gr. Alpha	58.4 ± 5.8	33.3 - 83.5	83.6 ± 5.8; 11.7
			Results were recalculated with Am-241 efficiency; 57.80 ± 5.73 pCi/L. Refer to STW-863.			
STW-867	Water	Mar, 2000	Gr. Beta	16.8 ± 1.7	8.1 - 25.5	15.4 ± 0.9; 2.5
STW-876	Water	Mar, 2000	I-131	19.9 ± 2.0	14.7 - 25.1	18.7 ± 0.6; 2.0
STW-877	Water	Apr, 2000	Gr. Alpha	54.0 ± 13.5	30.8 - 77.2	52.3 ± 2.3; 6.8
STW-877	Water	Apr, 2000	Ra-226	18.6 ± 2.8	13.8 - 23.4	17.5 ± 1.1; 2.1
STW-877	Water	Apr, 2000	Ra-228	3.6 ± 0.9	2.0 - 5.1	3.7 ± 0.4; 0.6
STW-878	Water	Apr, 2000	Co-60	16.9 ± 5.0	8.2 - 25.6	19.2 ± 0.6; 2.8
STW-878	Water	Apr, 2000	Cs-134	86.4 ± 5.0	77.7 - 95.1	81.0 ± 1.3; 11.7
STW-878	Water	Apr, 2000	Cs-137	123.0 ± 6.2	112.0 - 134.0	119.0 ± 2.6; 17.3
STW-878	Water	Apr, 2000	Gr. Beta	289.0 ± 43.4	214.0 - 364.0	276.0 ± 9.6; 43.6
STW-878	Water	Apr, 2000	Sr-89	50.7 ± 5.0	42.0 - 59.4	32.3 ± 3.3; 4.6
STW-878	Water	Apr, 2000	Sr-90	32.8 ± 5.0	24.1 - 41.5	11.3 ± 1.0; 1.5
			An error was found in calculation. Result of recalculation: Sr-89, 55.5 ± 7.2 pCi/L / Sr-90, 30.7 ± 3.0 pCi/L.			
			Results of reanalysis: Sr-89, 47.4 ± 14.5 pCi/L / Sr-90, 33.0 ± 1.35 pCi/L. Both results are within limits.			
STW-879	Water	Jun, 2000	Ba-133	25.5 ± 5.0	16.8 - 34.2	22.4 ± 2.1; 3.8

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

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L <sup>b</sup>		
				ERA Result <sup>c</sup> 1s, N=1	Control Limits	Laboratory Results $\pm 2$ Sigma <sup>d</sup>
STW-879	Water	Jun, 2000	Co-60	65.6 $\pm$ 5.0	56.9 - 74.3	69.9 $\pm$ 3.7;10.7
STW-879	Water	Jun, 2000	Cs-134	13.8 $\pm$ 5.0	5.1 - 22.5	13.5 $\pm$ 0.8;2.1
STW-879	Water	Jun, 2000	Cs-137	238.0 $\pm$ 11.9	217.0 - 259.0	232.0 $\pm$ 7.8;34.3
STW-879	Water	Jun, 2000	Zn-65	54.6 $\pm$ 5.5	45.3 - 63.9	50.9 $\pm$ 3.8;8.2
STW-880	Water	Jun, 2000	Ra-226	3.0 $\pm$ 0.5	2.2 - 3.8	2.8 $\pm$ 0.2;0.3
STW-880	Water	Jun, 2000	Ra-228	13.0 $\pm$ 3.3	7.4 - 18.6	10.0 $\pm$ 0.9;1.4
STW-880	Water	Jun, 2000	Uranium	63.4 $\pm$ 6.3	52.6 - 74.2	57.0 $\pm$ 4.4;7.2
STW-883	Water	Jul, 2000	Gr. Alpha	7.2 $\pm$ 5.0	0.0 - 15.9	6.9 $\pm$ 1.1;1.4
STW-883	Water	Jul, 2000	Gr. Beta	87.5 $\pm$ 10.0	70.2 - 105.0	88.8 $\pm$ 9.8;16.8
STW-884	Water	Aug, 2000	H-3	8320.0 $\pm$ 832.0	6910.0 - 9730.0	8740.0 $\pm$ 174.0;1201.3
STW-891	Water	Sep, 2000	Ra-226	18.9 $\pm$ 2.8	14.0 - 23.8	17.9 $\pm$ 1.3;2.2
STW-891	Water	Sep, 2000	Ra-228	6.2 $\pm$ 1.6	3.5 - 8.8	5.7 $\pm$ 0.5;0.8
STW-891	Water	Sep, 2000	Uranium	11.9 $\pm$ 3.0	6.7 - 17.1	10.3 $\pm$ 0.1;1.0
STW-892	Water	Oct, 2000	I-131	15.9 $\pm$ 1.6	10.7 - 21.1	16.9 $\pm$ 0.3;1.7
STW-892	Water	Oct, 2000	I-131(g)	15.9 $\pm$ 1.6	10.7 - 21.1	17.1 $\pm$ 5.4;6.0
STW-893	Water	Oct, 2000	Gr. Alpha	74.4 $\pm$ 18.6	42.2 - 107.0	66.3 $\pm$ 5.3;9.7
STW-893	Water	Oct, 2000	Ra-226	10.5 $\pm$ 1.6	7.8 - 13.2	10.1 $\pm$ 1.0;1.4
STW-893	Water	Oct, 2000	Ra-228	19.4 $\pm$ 4.9	11.0 - 27.8	21.2 $\pm$ 0.5;2.2
STW-893	Water	Oct, 2000	Uranium	44.5 $\pm$ 4.5	36.8 - 52.2	41.4 $\pm$ 1.9;4.6
STW-894	Water	Oct, 2000	Co-60	91.1 $\pm$ 5.0	82.4 - 99.8	93.4 $\pm$ 1.6;13.5
STW-894	Water	Oct, 2000	Cs-134	59.8 $\pm$ 5.0	51.1 - 68.5	54.8 $\pm$ 0.3;7.9
STW-894	Water	Oct, 2000	Cs-137	45.0 $\pm$ 5.0	36.3 - 53.7	45.5 $\pm$ 2.3;7.0
STW-894	Water	Oct, 2000	Gr. Beta	256.0 $\pm$ 38.4	189.0 - 323.0	209.0 $\pm$ 7.9;33.1
STW-894	Water	Oct, 2000	Sr-89	41.3 $\pm$ 5.0	32.6 - 50.0	32.8 $\pm$ 3.0;4.4
STW-894	Water	Oct, 2000	Sr-90	18.0 $\pm$ 5.0	9.3 - 26.7	16.0 $\pm$ 2.4;2.9
STW-895	Water	Nov, 2000	Gr. Alpha	60.3 $\pm$ 15.1	34.4 - 86.2	50.3 $\pm$ 2.6;6.7
STW-895	Water	Nov, 2000	Gr. Beta	25.5 $\pm$ 5.0	16.8 - 34.2	28.6 $\pm$ 1.3;4.6



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

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L <sup>b</sup>		
				ERA Result <sup>c</sup> 1s, N=1	Control Limits	Laboratory Results ± 2 Sigma <sup>d</sup>
STW-896	Water	Nov, 2000	Ba-133	82.2 ± 8.2	68.0 - 96.4	78.0 ± 2.0; 11.4
STW-896	Water	Nov, 2000	Co-60	27.8 ± 5.0	19.1 - 36.5	30.8 ± 1.7; 4.7
STW-896	Water	Nov, 2000	Cs-134	76.0 ± 5.0	67.3 - 84.7	67.2 ± 3.3; 10.2
The mean value for Cs-134 of all participating laboratories was 70.7 pCi/L. Other gamma emitters are within limits, the counting efficiency is not suspect. Library values were reviewed and found to be correct.						
STW-896	Water	Nov, 2000	Cs-137	106.0 ± 5.3	96.8 - 115.0	109.0 ± 1.0; 15.7
STW-896	Water	Nov, 2000	Zn-65	79.0 ± 7.9	65.3 - 92.7	81.5 ± 7.4; 13.9

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

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

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

<sup>d</sup> Unless otherwise indicated, results are given as the mean ± 2 standard deviations for three determinations. The numbers after the semi-colon are the Total Propagated Uncertainty of the result.

Table IV-2. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP) <sup>a</sup>.

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/kg <sup>b</sup>		
				MAPEP Result <sup>d</sup> 1s, N=1	Control Limits	Laboratory Results ±Standard Deviation <sup>c</sup>
STSO-882	SOIL	Jan, 2000	Am-241	61.1	42.8 - 79.4	64.9 ± 6.5; 9.2
STSO-882	SOIL	Jan, 2000	Co-57	949.0	664.3 - 1,233.7	721.1 ± 83.8; 110.6
The MAPEP soil sample (STSO-882), as received, did not closely match a standard gamma geometry. The results for gamma-emitting isotopes are reanalyses, with a reduced sample size.						
STSO-882	SOIL	Jan, 2000	Co-60	1,180.0	826.0 - 1,534.0	1,264.4 ± 78.6; 148.9
STSO-882	SOIL	Jan, 2000	Cs-134	1,047.0	732.9 - 1,361.1	969.3 ± 76.9; 123.7
STSO-882	SOIL	Jan, 2000	Cs-137	930.0	651.0 - 1,209.0	944.0 ± 92.0; 131.8
STSO-882	SOIL	Jan, 2000	K-40	652.0	456.4 - 847.6	811.7 ± 79.9; 113.9
STSO-882	SOIL	Jan, 2000	Mn-54	1,023.0	716.1 - 1,329.9	1,103.3 ± 64.2; 127.6
STSO-882	SOIL	Jan, 2000	Ni-63	960.0	672.0 - 1,248.0	711.0 ± 71.1; 100.6
STSO-882	SOIL	Jan, 2000	Pu-239/40	74.4	52.1 - 96.7	67.9 ± 6.8; 9.6
STSO-882	SOIL	Jan, 2000	Sr-90	304.0	212.8 - 395.2	345.0 ± 34.5; 48.8
STSO-882	SOIL	Jan, 2000	U-233/4	90.0	63.0 - 117.0	62.9 ± 6.3; 8.9
Incomplete dissolution of the sample is suspected.						
Results of reanalysis: U-233/234, 67.3 ± 3.3 pCi/g, U-238, 68.1 ± 8.9 pCi/g.						
STSO-882	SOIL	Jan, 2000	U-238	93.0	65.1 - 120.9	63.2 ± 6.3; 8.9
STSO-882	SOIL	Jan, 2000	Zn-65	1,540.0	1,078.0 - 2,002.0	1,544.3 ± 61.5; 166.2

<sup>a</sup> 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.

<sup>b</sup> All results are in Bq/kg or Bq/L as requested by the Department of Energy.

<sup>c</sup> Unless otherwise indicated, laboratory results are given as the mean ± 1 standard deviations for three determinations.

<sup>d</sup> Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination), and control limits as defined by the MAPEP.

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)<sup>a</sup>.

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L <sup>b</sup>		Control Limits <sup>c</sup>
				Teledyne Result <sup>c</sup>	EML Result <sup>d</sup>	
STSO-870	Soil	Mar, 2000	Ac-228	98.3 ± 7.1; 12.1	97.6 ± 4.2	0.8 - 1.4
STSO-870	Soil	Mar, 2000	Bi-212	98.5 ± 15.1; 18.0	106.0 ± 7.0	0.8 - 1.4
STSO-870	Soil	Mar, 2000	Bi-214	88.0 ± 3.8; 9.6	86.7 ± 3.8	0.8 - 1.4
STSO-870	Soil	Mar, 2000	Cs-137	324.0 ± 5.0; 32.8	339.0 ± 9.3	0.7 - 1.4
STSO-870	Soil	Mar, 2000	K-40	872.0 ± 34.0; 93.6	811.0 ± 29.0	0.7 - 1.6
STSO-870	Soil	Mar, 2000	Pb-212	93.7 ± 2.7; 9.8	97.3 ± 4.6	0.8 - 1.3
STSO-870	Soil	Mar, 2000	Pb-214	100.1 ± 3.7; 10.7	86.5 ± 6.8	0.8 - 1.3
STSO-870	Soil	Mar, 2000	Pu-238	19.8 ± 3.0; 3.6	18.6 ± 0.5	0.2 - 2.0
STSO-870	Soil	Mar, 2000	Pu-239/40	8.1 ± 1.7; 1.9	7.0 ± 0.3	0.6 - 2.0
STSO-870	Soil	Mar, 2000	Sr-90	13.6 ± 3.1; 3.4	20.2 ± 0.2	0.6 - 3.0
STVE-871	Vegetation	Mar, 2000	Am-241	9.8 ± 0.9; 1.3	10.4 ± 1.4	0.6 - 2.9
STVE-871	Vegetation	Mar, 2000	Co-60	46.5 ± 2.1; 6.7	52.8 ± 1.0	0.6 - 1.5
STVE-871	Vegetation	Mar, 2000	Cs-137	1,872.0 ± 46.0; 258.7	1,380.0 ± 20.0	0.8 - 1.5
STVE-871	Vegetation	Mar, 2000	K-40	506.4 ± 28.0; 57.9	521.0 ± 20.0	0.5 - 1.5
STVE-871	Vegetation	Mar, 2000	Pu-239/40	14.3 ± 1.5; 2.1	15.5 ± 2.1	0.6 - 2.0
STVE-871	Vegetation	Mar, 2000	Sr-90	1,198.0 ± 85.0; 146.9	1,780.0 ± 17.8	0.5 - 1.4
STAP-872	Air Filter	Mar, 2000	Co-57	5.9 ± 0.1; 0.6	5.3 ± 0.2	0.6 - 1.3
STAP-872	Air Filter	Mar, 2000	Co-60	5.9 ± 0.1; 0.6	5.3 ± 0.3	0.7 - 1.3
STAP-872	Air Filter	Mar, 2000	Cs-137	7.5 ± 0.1; 0.8	6.1 ± 0.3	0.7 - 1.3
STAP-872	Air Filter	Mar, 2000	Gr. Alpha	3.3 ± 0.1; 0.3	3.0 ± 0.3	0.8 - 1.6
STAP-872	Air Filter	Mar, 2000	Gr. Beta	2.7 ± 0.1; 0.3	2.4 ± 0.2	0.8 - 1.9
STAP-872	Air Filter	Mar, 2000	Mn-54	31.8 ± 0.3; 3.2	27.2 ± 0.8	0.8 - 1.3
STAP-872	Air Filter	Mar, 2000	Pu-238	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.6 - 1.6
STAP-872	Air Filter	Mar, 2000	Pu-239/40	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 1.6
STAP-872	Air Filter	Mar, 2000	Ru-106	3.5 ± 1.0; 1.1	2.0 ± 1.9	0.5 - 1.6
Result within activity ± error margin.						
STAP-872	Air Filter	Mar, 2000	Sr-90	0.3 ± 0.2; 0.2	0.2 ± 0.0	0.6 - 2.3
STAP-872	Air Filter	Mar, 2000	Uranium	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 2.9
STW-874	Water	Mar, 2000	Am-241	1.7 ± 0.2; 0.3	2.0 ± 0.2	0.7 - 1.6
STW-874	Water	Mar, 2000	Co-60	51.0 ± 1.2; 7.4	48.9 ± 1.8	0.9 - 1.2
STW-874	Water	Mar, 2000	Cs-137	108.6 ± 1.8; 15.7	103.0 ± 4.0	0.9 - 1.2
STW-874	Water	Mar, 2000	Fe-55	33.0 ± 1.2; 3.5	33.1 ± 0.7	0.3 - 1.6
STW-874	Water	Mar, 2000	Gr. Alpha	1,217.0 ± 35.0; 152.5	1,700.0 ± 170.0	0.6 - 1.3
STW-874	Water	Mar, 2000	Gr. Beta	792.0 ± 25.0; 124.5	690.0 ± 70.0	0.8 - 1.7
STW-874	Water	Mar, 2000	H-3	147.0 ± 26.0; 32.8	79.4 ± 2.5	0.7 - 1.9
STW-874	Water	Mar, 2000	Ni-63	101.0 ± 6.0; 11.7	112.0 ± 11.0	0.8 - 1.3
STW-874	Water	Mar, 2000	Pu-238	0.8 ± 0.2; 0.2	0.9 ± 0.0	0.7 - 1.3
STW-874	Water	Mar, 2000	Pu-239/40	1.0 ± 0.1; 0.1	0.9 ± 0.0	0.6 - 1.4

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)<sup>a</sup>.

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L <sup>b</sup>		Control Limits <sup>c</sup>
				Teledyne Result <sup>c</sup>	EML Result <sup>d</sup>	
STW-874	Water	Mar, 2000	Sr-90	4.5 ± 1.0; 1.1	3.4 ± 0.1	0.7 - 1.4
STW-874	Water	Mar, 2000	Uranium	0.3 ± 0.0; 0.0	1.0 ± 0.1	0.4 - 1.5
Result reported was for U-234. Result for U (total); 0.58 ± 0.02 pCi/L.						
STSO-885	Soil	Sep, 2000	Ac-228	78.0 ± 1.5; 7.9	80.2 ± 3.6	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Bi-212	73.0 ± 3.3; 8.0	80.5 ± 6.6	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Bi-214	91.0 ± 4.0; 9.9	83.3 ± 4.2	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Cs-137	925.7 ± 14.2; 93.7	1,020.0 ± 51.0	0.7 - 1.4
STSO-885	Soil	Sep, 2000	K-40	713.6 ± 7.1; 71.7	713.0 ± 38.0	0.7 - 1.6
STSO-885	Soil	Sep, 2000	Pb-212	66.1 ± 4.3; 7.9	79.3 ± 4.3	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Pb-214	100.1 ± 3.7; 10.7	86.3 ± 4.3	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Pu-239/40	18.4 ± 0.4; 1.9	16.8 ± 0.3	0.6 - 2.0
STSO-885	Soil	Sep, 2000	Sr-90	39.9 ± 5.3; 6.6	50.4 ± 2.0	0.6 - 3.0
STSO-885	Soil	Sep, 2000	Th-234	154.7 ± 9.3; 18.1	148.0 ± 10.0	0.8 - 1.4
STSO-885	Soil	Sep, 2000	Uranium	254.3 ± 13.0; 28.6	327.0 ± 11.0	0.3 - 1.5
STW-886	Water	Sep, 2000	Am-241	1.3 ± 0.2; 0.2	1.2 ± 0.0	0.7 - 1.6
STW-886	Water	Sep, 2000	Co-60	71.9 ± 7.2; 12.6	73.7 ± 2.9	0.9 - 1.2
STW-886	Water	Sep, 2000	Cs-137	62.7 ± 6.3; 11.0	67.0 ± 3.5	0.9 - 1.3
STW-886	Water	Sep, 2000	H-3	92.3 ± 8.9; 15.4	91.3 ± 0.3	0.7 - 1.9
STW-886	Water	Sep, 2000	Pu-238	0.7 ± 0.1; 0.1	0.8 ± 0.0	0.7 - 1.3
STW-886	Water	Sep, 2000	Pu-239/40	0.6 ± 0.1; 0.1	0.6 ± 1.0	0.6 - 1.4
STW-886	Water	Sep, 2000	Sr-90	4.6 ± 0.4; 0.6	4.5 ± 0.1	0.7 - 1.7
STW-886	Water	Sep, 2000	Uranium	0.8 ± 0.1; 0.1	0.9 ± 0.0	0.4 - 1.5
STW-887	Water	Sep, 2000	Gr. Alpha	1,113.7 ± 17.9; 137.0	1,070.0 ± 100.0	0.6 - 1.3
STW-887	Water	Sep, 2000	Gr. Beta	1,129.4 ± 16.7; 174.7	950.0 ± 90.0	0.8 - 1.7
STAP-888	Air Filter	Sep, 2000	Am-241	0.1 ± 0.0; 0.0	0.0 ± 0.0	0.6 - 1.9
STAP-888	Air Filter	Sep, 2000	Co-57	16.5 ± 0.6; 1.8	14.5 ± 0.5	0.6 - 1.3
STAP-888	Air Filter	Sep, 2000	Co-60	9.2 ± 0.4; 1.0	8.4 ± 0.5	0.7 - 1.3
STAP-888	Air Filter	Sep, 2000	Cs-137	8.8 ± 0.5; 1.0	7.4 ± 0.4	0.7 - 1.3
STAP-888	Air Filter	Sep, 2000	Mn-54	50.2 ± 2.3; 5.5	43.2 ± 1.3	0.8 - 1.4
STAP-888	Air Filter	Sep, 2000	Pu-238	0.0 ± 0.0; 0.0	0.0 ± 0.0	0.6 - 1.6
STAP-888	Air Filter	Sep, 2000	Pu-239/40	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 1.6
STAP-888	Air Filter	Sep, 2000	Sr-90	3.3 ± 0.1; 0.3	1.6 ± 0.1	0.6 - 2.3
STAP-888	Air Filter	Sep, 2000	U-233/4	0.0 ± 0.0; 0.0	0.0 ± 0.0	0.8 - 2.9
STAP-888	Air Filter	Sep, 2000	U-238	0.0 ± 0.0; 0.0	0.0 ± 0.0	0.8 - 2.6
Result within activity ± error margin.						
STAP-888	Air Filter	Sep, 2000	Uranium	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 2.9
STAP-889	Air Filter	Sep, 2000	Gr. Alpha	2.8 ± 0.0; 0.3	2.4 ± 0.2	0.8 - 1.6
STAP-889	Air Filter	Sep, 2000	Gr. Beta	2.1 ± 0.0; 0.2	1.5 ± 0.2	0.8 - 1.9

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML)<sup>a</sup>.

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L <sup>b</sup>		Control Limits <sup>e</sup>
				Teledyne Result <sup>c</sup>	EML Result <sup>d</sup>	
STVE-890	Vegetation	Sep, 2000	Am-241	5.9 ± 1.2; 1.3	5.6 ± 0.7	0.6 - 2.9
STVE-890	Vegetation	Sep, 2000	Cm-244	3.2 ± 0.1; 0.3	3.6 ± 0.3	0.4 - 1.9
STVE-890	Vegetation	Sep, 2000	Co-60	29.4 ± 0.4; 4.0	32.8 ± 1.3	0.6 - 1.5
STVE-890	Vegetation	Sep, 2000	Cs-137	739.3 ± 23.0; 103.1	867.0 ± 44.0	0.8 - 1.5
STVE-890	Vegetation	Sep, 2000	K-40	597.5 ± 49.3; 77.5	639.0 ± 34.0	0.5 - 1.5
STVE-890	Vegetation	Sep, 2000	Pu-239/40	4.5 ± 0.2; 0.5	9.6 ± 0.8	0.6 - 2.0
No reason for deviation was found with original result. The result of reanalysis; 12.1 ± 1.1 Bq/kg.						
STVE-890	Vegetation	Sep, 2000	Sr-90	1,201.5 ± 117.3; 167.9	1,150.0 ± 94.0	0.5 - 1.4

<sup>a</sup> The Environmental Measurements Laboratory provides the following nuclear species : Air Filters, Soil, Tissue, Vegetation and Water. Teledyne does not participate in the Tissue program.

<sup>b</sup> Results are reported in Bq/L with the following exceptions: Air Filter results are reported in Bq/Filter, Soil results are reported in Bq/Kg, Vegetation results are reported in Bq/Kg. The results of elemental Uranium are reported in ug/filter<sup>-1</sup>, g, or ml.

<sup>c</sup> Teledyne results are reported as the mean of three determinations±standard deviation;total promulgated uncertainty.

<sup>d</sup> The EML result listed is the mean of replicate determinations for each nuclide±the standard error of the mean.

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