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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Dresden Nuclear Power Station Units 1, 2, and 3
Facility Operating Licenses DPR-2, DPR-19, and DPR-25
Docket Numbers 50-010, 50-237, and 50-249

Subject: Dresden Nuclear Power Station Annual Radiological Environmental Operating Report for 2002

The purpose of this letter is to submit the Exelon Generation Company, LLC, Dresden Nuclear Power Station (DNPS) Annual Radiological Environmental Operating Report. This report provides the results of the radiological environmental and meteorological monitoring programs for the 2002 calendar year, and is submitted in accordance with Section 6.9.A.3 of the Unit 1 DNPS Technical Specifications and Section 5.6.2, "Annual Radiological Environmental Operating Report," of the Units 2 and 3 Technical Specifications.

Should you have any questions concerning this letter, please contact Mr. Jeff Hansen, Regulatory Assurance Manager, at (815) 416-2800.

Respectfully,

R. J. Hovey
Site Vice President
Dresden Nuclear Power Station

Enclosure

cc: Regional Administrator - NRC Region III
NRC Senior Resident - Dresden Nuclear Power Station

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DRESDEN STATION

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

2002

MAY 2003

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INTRODUCTION

The Dresden Station is located approximately twelve miles southwest of Joliet, Illinois at the confluence of the Des Plaines and Kankakee Rivers where they form the Illinois River. This station uses two boiling water reactors (G.E. design) to generate electricity. Unit 1, which began operating in 1960 and had a rated power output of 200 megawatts electrical (MWe), was shut down permanently on August 31, 1984 and is currently being decommissioned. Unit 2 net rated power output was increased to 912 MWe in 2001; Unit 3 net rated power output was increased to 912 MWe in 2002. Liquid radwaste from Unit 1 is transferred to Units 2 and 3 for collective processing and discharge.

Liquid effluents from Dresden are released to the Illinois River in controlled batches after radioassay of each batch. Gaseous effluents are released to the atmosphere after delay to permit decay of short-lived (noble) gases. Releases to the atmosphere are calculated on the basis of analyses of weekly grab samples of noble gases as well as continuously collected composite samples of iodine and particulate activity sampled during the course of the year. The results of effluent analyses are summarized on a monthly basis and reported to the Nuclear Regulatory Commission as required per Technical Specifications. Airborne concentrations of noble gases, I-131, and particulate radioactivity in offsite areas are calculated using isotopic composition of control effluent and meteorological data.

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

SUMMARY

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

The Total Effective Dose Equivalent (TEDE) for the period due to licensed activities at Dresden Station calculated for the maximally-exposed individual is 8.11 mrem. The annual limit on TEDE is 100 mrem. This value is largely dominated by the direct radiation constituent from the Unit 2 and Unit 3 turbines (8.08 mrem). The balance of the calculated maximum dose (0.03 mrem) is due to exposure from radionuclides released from the Station in liquid and gaseous effluents.

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 in gaseous effluents to the atmosphere during the year are listed in Table 1.1-1. A total of 1.77E+02 curies of noble gases with a maximum quarterly average release rate of 6.67E+00 µCi/sec were released from Dresden Units 1, 2 and 3.

A total of 3.83E-03 curies of I-131 were released during the year with a maximum quarterly average release rate of 1.43E-04 µCi/sec.

A total of 1.77E-02 curies of beta-gamma emitters were released as airborne particulate matter with a maximum quarterly average release rate of 1.41E-03 µCi/sec. Alpha emitting radionuclides totaled 4.95E-05 curies. Also, 1.09E+02 curies of tritium were released with a maximum quarterly average release rate of 6.13E+00 µCi/sec.

1.2 Liquids Released to Illinois River

Measured concentrations and isotopic composition of radioactivity released in liquid effluents during the year are listed in Table 1.2-1.

A total of 1.62E+07 liters of radioactive liquid wastes containing 2.72E-02 curies of fission and activation products (excluding tritium, noble gases and gross alpha) were discharged from the station. These wastes were released at a maximum quarterly average diluted concentration of 3.56E-08 µCi/ml from all units. During the same period, 1.02E+02 curies of tritium were released with a maximum quarterly average diluted concentration of 1.00E-04 µCi/ml. A total of 1.25E-04 curies of alpha-emitting radionuclides were released.

2.0 SOLID RADIOACTIVE WASTE

Solid radioactive wastes were shipped by truck to the Barnwell disposal facility, the Envirocare disposal facility or to waste processors. For more detail, refer to the Dresden Station 2002 Annual Radiological Effluent Release Report.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

3.1.1 Noble Gases

To demonstrate compliance with the applicable regulations regarding public radiation dose due to gaseous effluents from Dresden Station, two methods are reported in the following sections. Both methods employ measured isotopic composition and release rates from the station.

Assumed "average meteorological data" are used in ODCM-required calculations performed at least every 31 days. These data use a ten-year average (1/1/1978-12/31/1987) for Dresden Station. Actual "concurrent meteorological

data" recalculate the dose values using quarterly release information with actual meteorological data for the period.

3.1.1.1 Gamma Air Dose Rates

Offsite gamma air and total body doses are shown in Table 3.1-1 and were calculated based on measured release rates, isotopic composition of the noble gases, and average meteorological data for the period. Doses based on concurrent meteorological data are shown in Table 3.4-1. Isodose contours based on concurrent meteorological data for gamma air dose are shown in Figure 3.0-1.

Based on measured effluents and average meteorological data, the maximum total body dose (from all units) to an individual is calculated to be 2.22E-03 mrem (Table 3.1-1) for the year, with an occupancy or shielding factor of 0.7 included. The maximum total body dose from all units based on measured effluents and concurrent meteorological data would be 4.21E-03 mrem (Table 3.4-1). The maximum gamma air dose based on measured effluents and average meteorological data was 2.93E-03 mrad (Table 3.1-1) and 4.94E-03 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.1.2 Beta Air and Skin Dose Rates

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 the 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 assumed to have a thickness of 0.07 mm and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation based on measured effluents and average meteorological data for the year was 2.49E-03 mrem (Table 3.1-1) and 5.21E-03 mrem 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 3.0-2. The maximum offsite beta air dose based on measured effluents and average meteorological data for the year was 2.33E-04 mrad (Table 3.1-1) and 6.33E-04 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.2 Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine. The radioiodine, I-131, released during routine operation of the station, may be made available to man resulting in a dose to the thyroid. The principal pathway of interest for this radionuclide is ingestion of radioiodine in milk. Calculations made in previous years indicate that contributions to doses

from inhalation of I-131 and I-133 and from ingestion of I-133 in milk are negligible.

3.1.2.1 Iodine Concentrations in Air

The calculated concentration contours for iodine in air are shown in Figure 3.0-3. These calculations include an iodine cloud depletion factor which accounts for the phenomenon of elemental iodine deposition on the ground. The maximum iodine offsite average concentration is estimated to be 2.00E+00 pCi/m^3 for the year (Table 3.4-1).

3.1.2.2 Dose to Thyroid

The hypothetical thyroid dose to a 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 is calculated to be 6.29E-02 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 3.0-4. The maximum offsite average concentration is estimated to be 1.01E+00 pCi/m^3 (Table 3.4-1).

3.2 Liquid Effluent Pathways

The three principal pathways for potential dose to man from liquid waste effluents are ingestion of potable water, ingesting aquatic foods, and exposure while on the shoreline. Not all of these pathways are 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 tract, thyroid, bone and skin; specific parameters for use in the equations are given in the Dresden Station Offsite Dose Calculation Manual. The maximum total body dose and organ dose for the year was 1.18E-03 mrem (adult) and 1.67E-03 mrem (child), respectively (Table 3.2-1).

3.3 Assessment of Dose to Member of Public

During the period January to December, 2002, Dresden Station did not exceed the following limits as shown in Table 3.1-1 and Table 3.2-1 (based on average meteorological data) and as shown in Table 3.4-1 (based on concurrent meteorological data):

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

- The RETS limits on dose or dose commitment to a member of the public due to radioactive materials in liquid effluents from each reactor unit (1.5 mrem to the total body or 5 mrem to any organ during any calendar quarter; 3 mrem to the total 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 8 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) from the site.

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 35' and 300' levels and wind speed class by atmospheric stability class determined from the temperature difference between the 150' and 35' and between the 300' and 35' levels, respectively. Data recovery for all measurements on the tower was 99.7% during 2002.

5.0 ENVIRONMENTAL MONITORING

Table 5.0-1 and Table 5.0-2 provide an outline of the Radiological Environmental Monitoring Program (REMP) as required in the ODCM. Tables 5.0-3 to 5.0-6 summarize data for the year by quarter. A detailed listing of all data is given in Appendix III.

Specific findings for various environmental media are discussed below.

5.1 Gamma Radiation

External radiation dose from onsite sources and noble gases released to the atmosphere was measured using CaF_2 thermoluminescent dosimeters (TLDs). Each location consists of 2 TLD sets. Quarterly average external radiation dose for the year was 22.5 ± 3.4 mR at indicator locations and 20.5 ± 3.2 mR at control locations. TLD results are listed in Section 4.0 in Appendix III and locations are shown in Figures 5.0-1 and 5.0-2.

5.2 Airborne I-131 and Particulate Radioactivity

Locations of the samplers are shown in Figure 5.0-1. Airborne I-131 remained below the LLD of 0.07 pCi/m^3 throughout the year in all analyzed samples.

Gross beta concentrations ranged from 0.4E-02 to 6.3E-02 pCi/m^3 and averaged 2.6E-02 pCi/m^3, and were similar to those measured in previous years (except for the period from May 17 through June 7, 1986 when it was influenced by the nuclear reactor accident at Chernobyl). Quarterly gamma isotopic results were below the LLD level of 0.01 pCi/m^3.

No radioactivity attributable to station operation was detected in any sample.

5.3 Terrestrial Activity

Vegetables were collected in the third quarter and analyzed for I-131 and gamma-emitting nuclides. All 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

Surface water samples were collected weekly from two locations, shown in Figure 5.0-2, and composited monthly for gross beta and gamma-emitters. Quarterly composites were analyzed for tritium. Cs-134 and Cs-137 levels were below the detection limit of 15 and 18 pCi/L, respectively. All other gamma emitters were below their respective LLDs in all samples collected during the year.

Gross beta at D-51 (Dresden Lock & Dam) averaged 5.1 pCi/L with a range of 3.1 to 7.6 pCi/L; D-52 (DesPlaines River) gross beta averaged 6.9 pCi/L with a range of 5.0 to 9.4 pCi/L.

Tritium concentration was below the LLD of 200 pCi/L in all samples collected from D-52 (DesPlaines River); D-51 (Dresden Lock & Dam) averaged 776 pCi/L with a range of 148 to 1,974 pCi/L.

Well water samples were collected quarterly and analyzed for tritium and gamma-emitting nuclides. Gamma-emitters were below LLD for all samples during the year; tritium activity at D-35 (Dresden Lock & Dam) was also below LLD. Tritium activity at D-23 (Thorsen Well) averaged 490 pCi/L with a first quarter high of 570 pCi/L.

Levels of gamma radioactivity in fish samples were measured and found in all cases to be below the lower limits of detection for the program. The results were similar to those obtained in 1983 through 2001.

Sediment samples were collected twice and analyzed by gamma spectroscopy. The levels of Cs-134 and Cs-137 were below the LLD levels of 0.15 and 0.18 pCi/g dry weight, respectively. Other gamma emitters were below their respective LLDs for the program.

Fish, sediment and water locations are shown in Figure 5.0-2.

5.5 Milk

Milk sample locations are shown in Figure 5.0-1. Milk samples were collected biweekly during the grazing season (May through October) and monthly during the balance of the year from the Vince Biros Farm (D-25). I-131 was determined for each sample by chemical separation of I-131 and beta counting.

I-131 remained below the ODCM-required detection limits of 5.0 pCi/L during the non-grazing period (November through April) and 0.5 pCi/L during the grazing period (May through October). The results were similar to those obtained during the 1983 - 2001 period except for samples collected during the second and third quarters of 1986. I-131 detected in milk samples during this period is attributable to the nuclear accident at Chernobyl.

5.6 Special Collections

In June, 1994, elevated tritium levels were discovered in the onsite storm sewers. A special program was initiated to identify, locate, and correct the source or sources of radioactivity. Numerous wells have been drilled, and sampling and analysis from those wells and the storm sewers continues. Results of the 2002 sampling program are available for inspection at the Station.

5.7 Listing of Missed Samples

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

5.8 Program Modifications

There were no modifications to the program in 2002.

6.0 ANALYTICAL PROCEDURES

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

7.0 MILCH ANIMALS AND NEAREST CATTLE CENSUS

Census of milch animals and nearest cattle were conducted within a 6.2-mile radius of the station. The survey was conducted by "door-to-door" canvas by A. Lewis on August 28, 2002. Results of the milch animal and nearest cattle census are presented on pages 37 and 38 of Appendix III.

There are no dairy farms within a 6.2-mile radius of the Dresden Nuclear Power Station.

8.0 NEAREST RESIDENCES CENSUS

The nearest resident census was conducted by A. Lewis on August 28, 2002. Results of the nearest resident census are presented page 39 of Appendix III.

9.0 DREDGE SPOILS CENSUS

According to the Army Corp. of Engineers in August 2002, dredging was performed in the past year and sampled per ODCM requirements. The nearest location to the station for dredge spoils can be found on page 52 of Appendix III.

10.0 DREDGE SPOILS RESULTS

Dredge spoils results are on page 53 of Appendix III.

11.0 INTERLABORATORY COMPARISON PROGRAM RESULTS

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

12.0 ERRATA DATA

Errata data are presented in Appendix V.

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT
January Through December 2002

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL GASEOUS RELEASES

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %
A. FISSION & ACTIVATION GASES						
1. Total Release	Ci	5.19E+01	4.64E+01	5.21E+01	2.67E+01	7.31%
2. Average Release Rate for the Period	µCi/sec	6.67E+00	5.91E+00	6.56E+00	3.36E+00	
3. Percent of Technical Specification Limit	%	*	*	*	*	
B. IODINES						
1. Total Iodine-131	Ci	7.69E-04	9.33E-04	9.93E-04	1.13E-03	21.6%
2. Average Release Rate of I-131 for the Period	µCi/sec	9.89E-05	1.19E-04	1.25E-04	1.43E-04	
3. Percent of Technical Specification Limit	%	*	*	*	*	
4. Total Iodine-131, Iodine-133 and Iodine-135	Ci	2.48E-03	6.29E-03	3.76E-03	9.61E-03	
C. PARTICULATES						
1. Particulates with half-lives > 8 days	Ci	1.10E-02	2.13E-03	2.40E-03	2.16E-03	34.1%
2. Average Release Rate for the Period	µCi/sec	1.41E-03	2.70E-04	3.01E-04	2.72E-04	
3. Percent of Technical Specification Limit	%	*	*	*	*	
4. Gross Alpha Radioactivity	Ci	1.40E-05	1.14E-05	1.04E-05	1.37E-05	
D. TRITIUM						
1. Total Release	Ci	1.51E+01	4.82E+01	2.68E+01	1.90E+01	7.89%
2. Average Release Rate for the Period	µCi/sec	1.95E+00	6.13E+00	3.38E+00	2.39E+00	
3. Percent of Technical Specification Limit	%	*	*	*	*	

*The information is contained in the Radiological Impact on Man section of the report. Total airborne release data are provided which include fission and activation gases, iodines, particulates, tritium.

Table 1.2-1

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT
January Through December 2002

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL LIQUID RELEASES

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %
A. FISSION & ACTIVATION PRODUCTS						
1. Total Release (not including H-3, gases, alpha)	Ci	4.22E-04	2.04E-03	2.17E-02	3.06E-03	10.6%
2. Average Diluted Conc. During Period	µCi/ml	3.77E-09	3.56E-08	2.22E-08	1.41E-08	
3. Percent of Technical Specification Limit	%	*	*	*	*	
B. TRITIUM						
1. Total Release	Ci	1.05E+01	5.76E+00	7.40E+01	1.13E+01	11.4%
2. Average Diluted Conc. During Release	µCi/ml	9.37E-05	1.00E-04	7.55E-05	5.24E-05	
3. Percent of Technical Specification Limit	%	*	*	*	*	
C. DISSOLVED AND ENTRAINED GASES						
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	5.58%
2. Average Diluted Conc. During Period	µCi/ml	<LLD	<LLD	<LLD	<LLD	
3. Percent of Technical Specification Limit	%	*	*	*	*	
D. GROSS ALPHA ACTIVITY						
1. Total Release	Ci	<LLD	1.20E-05	7.26E-05	4.01E-05	15.1%
E. VOLUME OF WASTE RELEASED (prior to dilution)	Liters	1.33E+06	8.35E+06	4.91E+06	1.63E+06	5.00%
F. VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	1.11E+08	5.67E+07	9.76E+08	2.15E+08	5.00%

*The information is contained in the Radiological Impact on Man section of the report.

Figure 3.0-1

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

Isopleth Labels
Small figure - multiply by 10^{-5}
Large figure - multiply by 10^{-5}

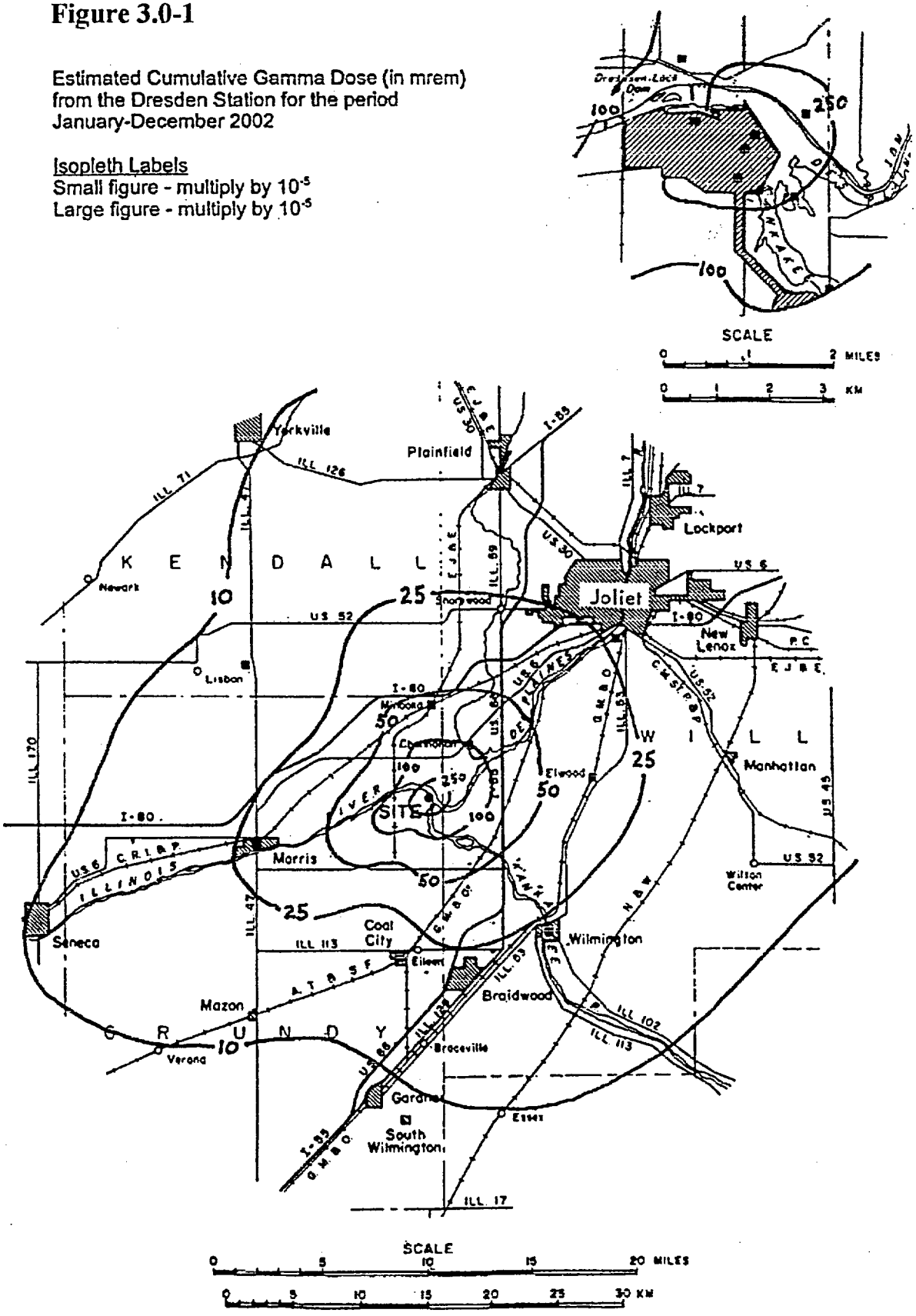


Figure 3.0-2

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

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

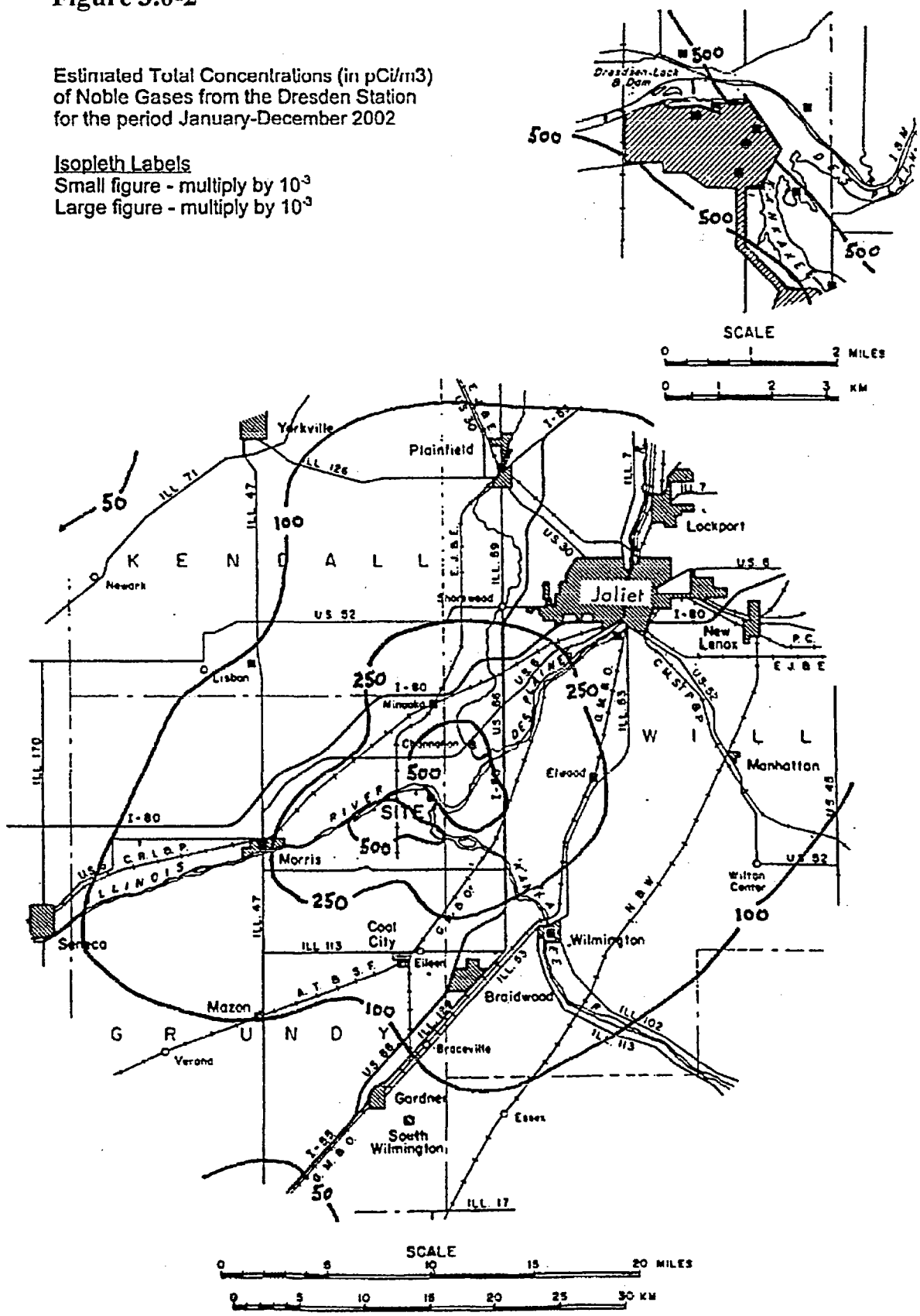
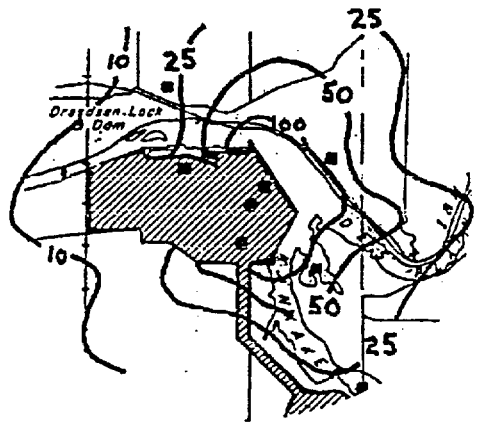


Figure 3.0-3

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

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



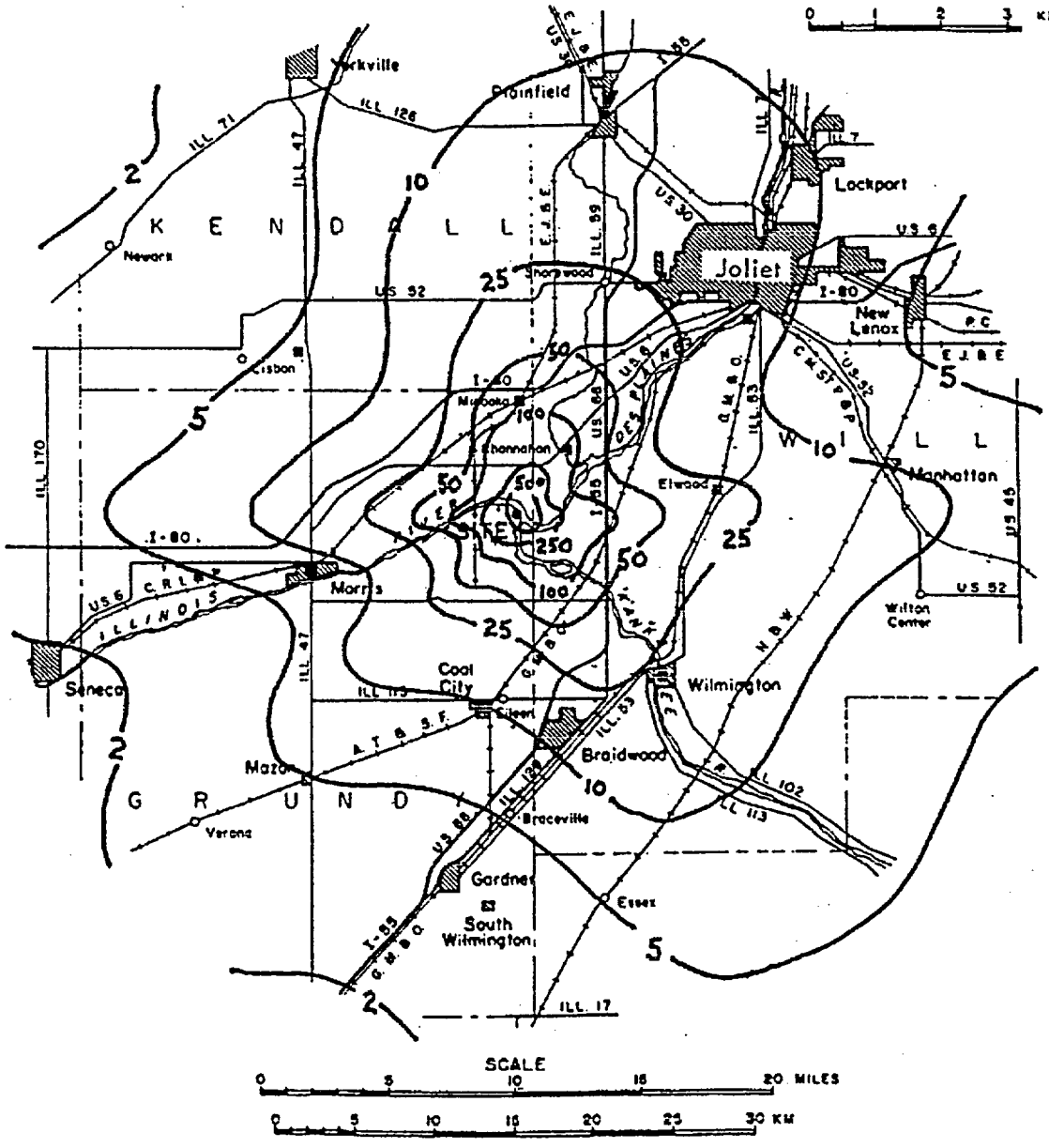


Figure 3.0-4

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

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

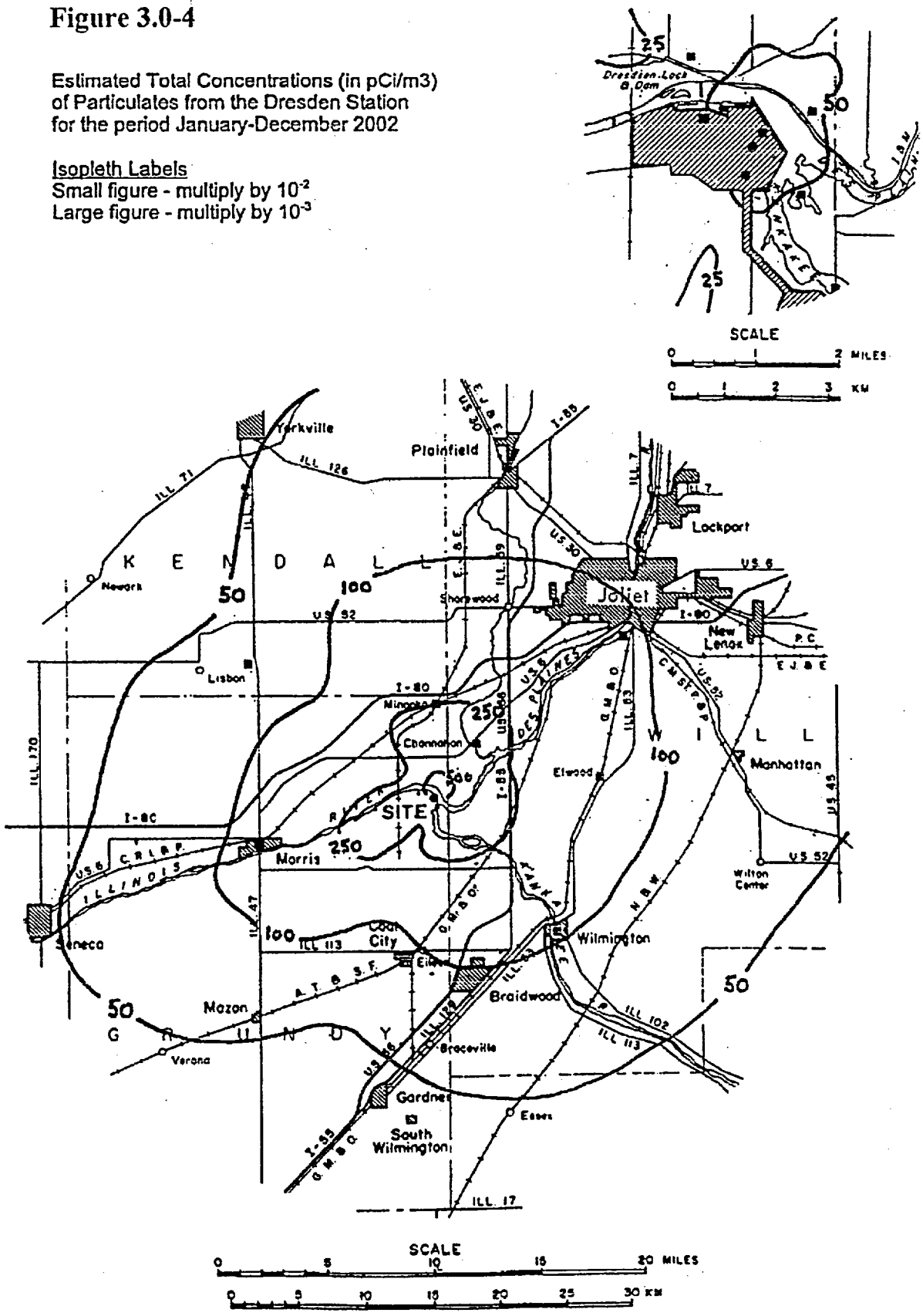


Table 3.1-1

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT
January Through December 2002

RADIOLOGICAL IMPACT ON MAN*

UNIT 1

1. Airborne Releases

	Maximum Doses from Airborne Releases					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Gamma Air (mrad)	5.0 mrad	2.97E-07 (e)	0.00E+00 (e)	0.00E+00 (e)	0.00E+00 (e)	10.0 mrad	2.98E-07 (e)
Beta Air (mrad)	10.0 mrad	4.51E-06 (e)	0.00E+00 (e)	0.00E+00 (e)	0.00E+00 (e)	20.0 mrad	4.51E-06 (e)
Total Body (mrem)	2.5 mrem	1.17E-06 (e)	0.00E+00 (e)	0.00E+00 (e)	0.00E+00 (e)	5.0 mrem	1.17E-06 (e)
Skin (mrem)	7.5 mrem	3.27E-06 (e)	0.00E+00 (e)	0.00E+00 (e)	0.00E+00 (e)	15.0 mrem	3.27E-05 (e)
Organ (mrem)	7.5 mrem	1.43E-05 (c,t)	6.57E-06 (c)	5.65E-06 (t)	7.87E-04 (i,c)	15.0 mrem	8.07E-04 (i,c)
Critical Organ		Lung	GI_LLI	GI_LLI	Liver (i) Bone (c)	–	Liver

UNIT 2

1. Airborne Releases

	Maximum Doses from Airborne Releases					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Gamma Air (mrad)	5.0 mrad	1.91E-04 (e)	2.61E-04 (e)	1.72E-04 (e)	1.51E-04 (e)	10.0 mrad	7.74E-04 (e)
Beta Air (mrad)	10.0 mrad	1.97E-05 (e)	1.74E-05 (e)	1.21E-05 (e)	1.02E-05 (e)	20.0 mrad	5.88E-05 (e)
Total Body (mrem)	2.5 mrem	1.44E-04 (e)	1.97E-04 (e)	1.41E-04 (e)	1.38E-04 (e)	5.0 mrem	5.84E-04 (e)
Skin (mrem)	7.5 mrem	1.62E-04 (e)	2.16E-04 (e)	1.43E-04 (e)	1.25E-04 (e)	15.0 mrem	6.46E-04 (e)
Organ (mrem)	7.5 mrem	4.37E-03 (c)	3.02E-03 (c)	5.24E-03 (c)	1.66E-03 (c)	15.0 mrem	1.38E-02 (c)
Critical Organ		Lung	Thyroid	Thyroid	Thyroid		Thyroid

* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

Table 3.1-1 (continued)

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT
January Through December 2002

RADIOLOGICAL IMPACT ON MAN*

UNIT 3

1. Airborne Releases

	Maximum Doses from Airborne Releases					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Gamma Air (mrad)	5.0 mrad	4.67E-04 (e)	6.21E-04 (e)	7.42E-04 (e)	3.34E-04 (e)	10.0 mrad	2.16E-03 (e)
Beta Air (mrad)	10.0 mrad	4.73E-05 (e)	4.41E-05 (e)	5.44E-05 (e)	2.49E-05 (e)	20.0 mrad	1.70E-04 (e)
Total Body (mrem)	2.5 mrem	3.52E-04 (e)	4.69E-04 (e)	5.60E-04 (e)	2.52E-04 (e)	5.0 mrem	1.63E-03 (e)
Skin (mrem)	7.5 mrem	3.97E-04 (e)	5.17E-04 (e)	6.18E-04 (e)	2.78E-04 (e)	15.0 mrem	1.81E-03 (e)
Organ (mrem)	7.5 mrem	4.25E-03 (c)	2.18E-02 (c)	1.78E-02 (c)	7.38E-03 (c)	15.0 mrem	4.91E-02 (c)
Critical Organ		Lung	Thyroid	Thyroid	Thyroid		Thyroid

* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

Table 3.2-1

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT
January Through December 2002

RADIOLOGICAL IMPACT ON MAN*

UNIT 1

2. Liquid Releases

	Maximum Doses from Aquatic Effluents					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Total Body (mrem)	1.5 mrem	None	None	None	None	3.0 mrem	None
Organ (mrem)	5.0 mrem	None	None	None	None	10.0 mrem	None
Critical Organ		None	None	None	None		None

UNIT 2

2. Liquid Releases

	Maximum Doses from Aquatic Effluents					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Total Body (mrem)	1.5 mrem	3.29E-05 (c)	2.09E-05 (c)	4.79E-04 (a)	5.50E-05 (a)	3.0 mrem	5.79E-04 (a)
Organ (mrem)	5.0 mrem	3.32E-05 (c)	2.48E-05 (c)	6.78E-04 (c)	8.02E-05 (c)	10.0 mrem	8.16E-04 (c)
Critical Organ		GI_LLI	Liver	Liver	Liver		Liver

UNIT 3

2. Liquid Releases

	Maximum Doses from Aquatic Effluents					Yearly Obj.	Annual Dose
	Quarterly Obj.	1st QTR	2nd QTR	3rd QTR	4th QTR		
Total Body (mrem)	1.5 mrem	3.30E-05 (c)	4.83E-05 (a)	4.73E-04 (a)	5.53E-05 (a)	3.0 mrem	6.02E-04 (a)
Organ (mrem)	5.0 mrem	3.32E-05 (c)	7.23E-05 (c)	6.70E-04 (c)	8.09E-05 (c)	10.0 mrem	8.56E-04 (c)
Critical Organ		GI_LLI	Liver	Liver	Liver		Liver

* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

Table 3.3-1

DRESDEN STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

Total Effective Dose Eqivalent,	mrem/yr	8.02E-04
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	0.00

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	1.54E-05	6.46E-06	5.19E-06	7.79E-04	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

DRESDEN STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body	Plume	1.17E-06		
(DDE)	Skyshine	0.00E+00		
	Ground	7.90E-04		
	Total	7.91E-04	25.0	0.00
Organ Dose	Thyroid	9.67E-06	75.0	0.00
(CDE)	Gonads	1.09E-05	25.0	0.00
	Breast	9.62E-06	25.0	0.00
	Lung	1.06E-05	25.0	0.00
	Marrow	1.02E-05	25.0	0.00
	Bone	9.72E-06	25.0	0.00
	Remainder	1.28E-05	25.0	0.00
	CEDE	1.11E-05		
	TEDE	8.02E-04	100.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

DRESDEN STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

Total Effective Dose Eqivalent,	mrem/yr	4.51E+00
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	4.51

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	1.11E+00	1.13E+00	1.14E+00	1.13E+00	4.51

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

DRESDEN STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body	Plume	5.84E-04		
(DDE)	Skyshine	4.50E+00		
	Ground	5.36E-03		
	Total	4.50E+00	25.0	18.01
Organ Dose	Thyroid	4.48E-03	75.0	0.01
(CDE)	Gonads	3.86E-03	25.0	0.02
	Breast	3.79E-03	25.0	0.02
	Lung	3.95E-03	25.0	0.02
	Marrow	3.84E-03	25.0	0.02
	Bone	3.82E-03	25.0	0.02
	Remainder	4.01E-03	25.0	0.02
	CEDE	3.92E-03		
	TEDE	4.51E+00	100.0	4.51

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

DRESDEN STATION UNIT THREE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

Total Effective Dose Eqivalent,	mrem/yr	3.60E+00
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	3.60

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	9.15E-01	1.01E+00	9.22E-01	7.56E-01	3.60

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

DRESDEN STATION UNIT THREE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/02 TO 12/31/02

CALCULATED 04/16/03

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body	Plume	1.63E-03		
(DDE)	Skyshine	3.58E+00		
	Ground	5.19E-03		
	Total	3.58E+00	25.0	14.33
Organ Dose	Thyroid	2.17E-02	75.0	0.03
(CDE)	Gonads	1.75E-02	25.0	0.07
	Breast	1.74E-02	25.0	0.07
	Lung	1.76E-02	25.0	0.07
	Marrow	1.75E-02	25.0	0.07
	Bone	1.77E-02	25.0	0.07
	Remainder	1.77E-02	25.0	0.07
	CEDE	1.77E-02		
	TEDE	3.60E+00	100.0	3.60

RESULTS BASED UPON: ODCM ANNEX REVISION 1.1 JULY 1994
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.4-1

Dresden Station - Unit 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2002

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	1.230E-07(ESE)	0.000E+00(N)	0.000E+00(N)	0.000E+00(N)	1.230E-07(ESE)
BETA AIR (mrad)	1.250E-05(ESE)	0.000E+00(N)	0.000E+00(N)	0.000E+00(N)	1.250E-05(ESE)
WHOLE BODY (mrem)	1.361E-06(ESE)	8.880E-07(ESE)	1.405E-06(NNE)	3.014E-04(SSE)	3.035E-04(SSE)
SKIN (mrem)	9.150E-06(ESE)	1.044E-06(ESE)	1.660E-06(NNE)	3.517E-04(SSE)	3.550E-04(SSE)
ORGAN (mrem)	6.723E-07(N)	1.965E-07(NNW)	1.441E-07(N)	5.770E-06(N)	5.770E-06(N)
CRITICAL PERSON	Teenager	Teenager	Teenager	Child	Child
CRITICAL ORGAN	Lung	Lung	Lung	Bone	Bone

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.00	10.0	0.00
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.01	5.0	0.01
SKIN (mrem)	7.5	0.00	15.0	0.00
ORGAN (mrem)	7.5	0.00	15.0	0.00
CRITICAL PERSON		Child		Child
CRITICAL ORGAN		Bone		Bone

Calculation used release data from the following:

Unit 1 - Ground
Unit 1 - Vent
Unit 1 - Chimney

Date of calculation: 4/25/2003

Table 3.4-1 (continued)

Dresden Station - Unit 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2002

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	2.738E-04(E)	5.370E-04(NNW)	3.500E-04(N)	2.630E-04(SSE)	1.237E-03(NNW)
BETA AIR (mrad)	5.440E-05(ESE)	5.990E-05(SW)	6.030E-05(NE)	3.280E-05(E)	1.463E-04(ENE)
WHOLE BODY (mrem)	4.460E-04(ESE)	2.412E-04(SSE)	2.397E-04(NNE)	2.727E-04(SSE)	1.051E-03(SSE)
SKIN (mrem)	5.610E-04(ESE)	3.080E-04(SSE)	3.142E-04(NNE)	3.439E-04(SSE)	1.302E-03(SSE)
ORGAN (mrem)	2.117E-04(N)	3.000E-05(N)	3.202E-05(NE)	2.955E-05(N)	3.012E-04(N)
CRITICAL PERSON	Teenager	Teenager	Child	Teenager	Teenager
CRITICAL ORGAN	Lung	Lung	GI-LLI	Lung	Lung

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.01	10.0	0.01
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.02	5.0	0.02
SKIN (mrem)	7.5	0.01	15.0	0.01
ORGAN (mrem)	7.5	0.00	15.0	0.00
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Lung		Lung

Calculation used release data from the following:

Unit 2 - Ground
Unit 2 - Vent
Unit 2 - Chimney

Date of calculation: 4/25/2003

Table 3.4-1 (continued)

Dresden Station - Unit 3

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2002

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	6.945E-04(E)	1.310E-03(NNW)	1.560E-03(N)	5.921E-04(SSE)	3.702E-03(NNW)
BETA AIR (mrad)	1.424E-04(ESE)	1.520E-04(SW)	2.760E-04(NE)	7.922E-05(E)	4.739E-04(ENE)
WHOLE BODY (mrem)	6.350E-04(ESE)	6.143E-04(SSE)	9.744E-04(NNE)	1.177E-03(SSE)	2.859E-03(SSE)
SKIN (mrem)	8.430E-04(ESE)	7.850E-04(SSE)	1.287E-03(NNE)	1.440E-03(SSE)	3.553E-03(SSE)
ORGAN (mrem)	1.752E-04(N)	1.683E-04(N)	1.296E-04(N)	1.172E-04(SSE)	5.020E-04(N)
CRITICAL PERSON	Teenager	Teenager	Child	Child	Teenager
CRITICAL ORGAN	Lung	Thyroid	Thyroid	Thyroid	Lung

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.03	10.0	0.04
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.05	5.0	0.06
SKIN (mrem)	7.5	0.02	15.0	0.02
ORGAN (mrem)	7.5	0.00	15.0	0.00
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Lung		Lung

Calculation used release data from the following:

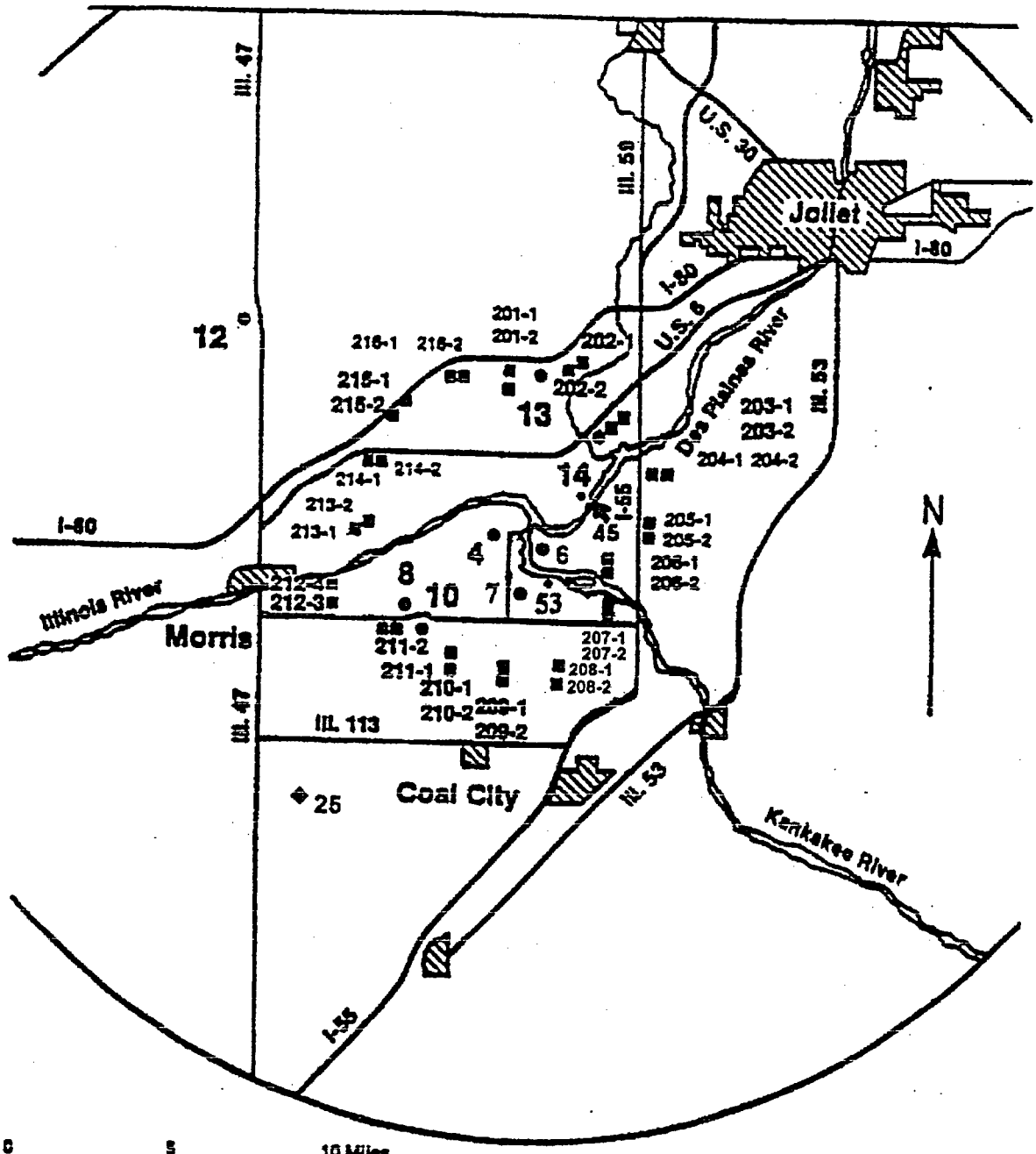
Unit 3 - Ground
Unit 3 - Vent
Unit 3 - Chimney

Maximum Offsite Values (pCi/m3)	
Iodine	2.00E+00
Particulate Matter	1.01E+00

Date of calculation: 4/25/2003

Figure 5.0-1

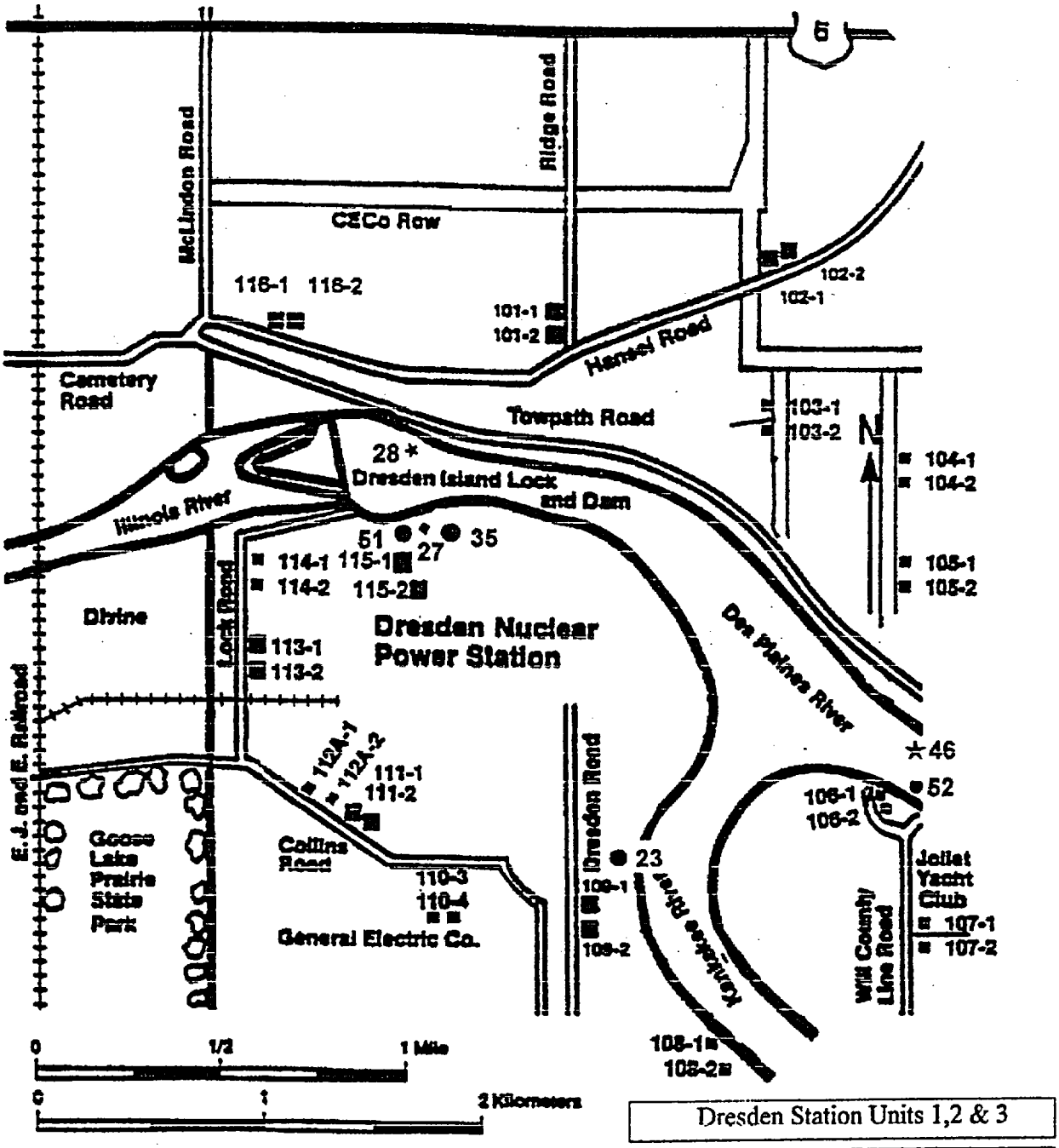
DRESDEN



Dresden Station Units 1,2 & 3	
Fixed Air Sampling and TLD Sites, Outer Ring TLD Locations and Milk Location	
D-01 Onsite Station 1	D-12 (C) Lisbon
D-02 Onsite Station 2	D-13 Minooka
D-03 Onsite Station 3	D-14 Channahon
D-04 Collins Road	D-45 McKinley Woods
D-07 Clay Products	D-53 Grundy County Road
D-08 Prairie Parks	D-25 Biros Farm (Milk)
D-10 Goose Lake Village	

Figure 5.0-2

DRESDEN



Dresden Station Units 1,2 & 3

Inner Ring TLD Locations
Fish, Water and Sediment Locations

D-23 Thorsen Well
D-27 Dresden Lock & Dam
D-28 Dresden Pool of Illinois River
D-35 Dresden Lock & Dam
D-46 DesPlaines River, Upstream
D-51 Dresden Lock & Dam
D-52 DesPlaines River

TABLE 5.0-1

Dresden Station Radiological Environmental Monitoring Locations	Air Sampling	TLD	Vegetables	Fish	Milk	Sediments	Surface Water	Well Water
D-01 Onsite Station 1	✓	✓	.	.	.	.	.	.
D-02 Onsite Station 2	✓	✓	.	.	.	.	.	.
D-03 Onsite Station 3	✓	✓	.	.	.	.	.	.
D-04 Collins Road	✓	✓	.	.	.	.	.	.
D-07 Clay Products	✓	✓	.	.	.	.	.	.
D-08 Prairie Parks	✓	✓	.	.	.	.	.	.
D-10 Goose Lake Village	✓	✓	.	.	.	.	.	.
D-12 Lisbon	✓	✓	.	.	.	.	.	.
D-13 Minooka	✓	✓	.	.	.	.	.	.
D-14 Channahon	✓	✓	.	.	.	.	.	.
D-23 Thorsen Well	.	.	.	.	.	.	.	✓
D-25 Vince Biros Farm	.	.	.	.	✓	.	.	.
D-27 Dresden Lock & Dam	.	.	.	.	.	✓	.	.
D-28 Dresden Pool at Illinois River	.	.	.	✓	.	.	.	.
D-35 Dresden Lock & Dam	.	.	.	.	.	.	.	✓
D-46 DesPlaines River, Upstream	.	.	.	✓	.	.	.	.
D-45 McKinley Woods Road	✓	✓	.	.	.	.	.	.
D-51 Dresden Lock & Dam	.	.	.	.	.	.	✓	.
D-52 DesPlaines River.	.	.	.	.	.	.	✓	.
D-53 Grundy County Road	✓	✓	.	.	.	.	.	.
D-Quad 1	.	.	✓	.	.	.	.	.
D-Quad 2	.	.	✓	.	.	.	.	.
D-Quad 3	.	.	✓	.	.	.	.	.
D-Quad 4	.	.	✓	.	.	.	.	.
D-Control	.	.	✓	.	.	.	.	.

CENSUS
Dairy
Residence
Cattle

TABLE 5.0-2

DRESDEN STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

1. AIR SAMPLERS

Site Code[a]	Location	Distance (miles)	Direction	Sector
D-01	Onsite Station 1	0.6	NW	Q
D-02	Onsite Station 2	0.3	NE	C
D-03	Onsite Station 3	0.4	S	J
D-04	Collins Road	0.9	W	N
D-07	Clay Products	2.0	S	J
D-08	Prairie Parks	4.0	SW	L
D-10	Goose Lake Village	3.8	SSW	K
D-12 (C)	Lisbon	10.0	NW	Q
D-13	Minooka	4.5	N	A
D-14	Channahon	3.5	NE	C
D-45	McKinley Woods Road	1.5	ENE	D
D-53	Grundy County Road	2.1	SSE	H

2. TLDs

a. Same as No. 1.

b. Special TLD Locations

Site Code	Distance (miles)	Direction	Sector
Inner Ring			
D-101-1,2	1.0	N	A
D-102-1,2	1.3	NNE	B
D-103-1,2	1.2	NE	C
D-104-1,2	1.5	ENE	D
D-105-1,2	1.4	E	E
D-106-1,2	0.9	ESE	F
D-107-1,2	1.3	SE	G
D-108-1,2	1.9	SSE	H
D-109-1,2	0.8	S	J
D-110-3,4	0.8	SSW	K
D-111-1,2	0.6	SW	L

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

TABLE 5.0-2 (continued)

DRESDEN STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

2. TLDs

b. Special TLD Locations (continued)

Site Code	Distance (miles)	Direction	Sector
Inner Ring (continued)			
D-112a-1,2	0.8	WSW	M
D-113-1,2	0.9	W	N
D-114-1,2	1.0	WNW	P
D-115-1,2	0.8	NW	Q
D-116-1,2	1.0	NNW	R
Outer Ring			
D-201-1,2	4.5	N	A
D-202-1,2	5.0	NNE	B
D-203-1,2	4.5	NE	C
D-204-1,2	5.0	ENE	D
D-205-1,2	4.2	E	E
D-206-1,2	3.5	ESE	F
D-207-1,2	4.5	SE	G
D-208-1,2	5.0	SSE	H
D-209-1,2	5.0	S	J
D-210-1,2	4.8	SSW	K
D-211-1,2	5.0	SW	L
D-212-3,4	6.0	WSW	M
D-213-1,2	4.5	W	N
D-214-1,2	4.5	WNW	P
D-215-1,2	5.1	NW	Q
D-216-1,2	4.8	NNW	R

3. MILK

Site Code[a]	Location	Distance (miles)	Direction	Sector
D-25 (C)	Vince Biros Farm	11.5	SW	L

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

TABLE 5.0-2 (continued)

DRESDEN STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

4. GROUND/WELL WATER

Site Code[a]	Location	Distance (miles)	Direction	Sector
D-23	Thorsen Well	0.7	S	J
D-35	Dresden Lock & Dam	0.5	NW	Q

5. SURFACE WATER

Site Code	Location	Distance (miles)	Direction	Sector
D-51	Dresden Lock & Dam	0.5	NW	Q
D-52 (C)	DesPlaines River	0.9	ESE	F

6. FISH

Site Code	Location	Distance (miles)	Direction	Sector
D-28	Dresden Pool of Illinois River	0.5	NW	Q
DSP-46(C)	DesPlaines River, Upstream	0.9	E	E

7. SEDIMENT

Site Code	Location	Distance (miles)	Direction	Sector
D-27	Dresden Lock & Dam	0.5	NW	Q

8. VEGETATION

Site Code	Location	Distance (miles)	Direction	Sector
Quad 1	Chris Locknar	2.8	NE	C
Quad 2	Robert Pagliano	3.2	SSE	H
Quad 3	Jim Bloom	3.9	SSW	K
Quad 4	J.D.Carmichael	1.6	NNW	R
Control (C)	Glasscock Farm	12.8	ENE	D

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

TABLE 5.0-2 (continued)

DRESDEN STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Site	Collection Frequency	Type of Analysis	Frequency of Analysis
1. Airborne Particulates	Onsite, Nearfield and Control		Filter exchange weekly	Gross Beta Gamma Isot.	Weekly Quarterly Composite (or if weekly gross beta in a sample exceeds 5X the average concentration of preceding calendar quarter).
	D-01	Onsite 1			
	D-02	Onsite 2			
	D-03	Onsite 3			
	D-04	Collins Road			
	D-07	Clay Products			
	D-12 (C)	Lisbon			
	D-45	McKinley Woods Road			
	D-53	Grundy County Road			
	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 origins in airborne effluents released from the station.
	D-08	Prairie Parks			
	D-10	Goose Lake Village			
	D-13	Minooka			
	D-14	Channahon			
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.	D-101-1,2	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				
	110-3,4				
	111-1,2				
	112a-1,2				
	113-1,2				
	114-1,2				
	115-1,2				
	116-1,2				
c.	D-201-1,2	Outer Ring			
	202-1,2				
	203-1,2				
	204-1,2				
	205-1,2				
	206-1,2				
	207-1,2				

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

TABLE 5.0-2 (continued)

DRESDEN STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis
4. TLDs (continued)					
	D-208-1,2	Outer Ring	Quarterly	Gamma	Quarterly
	209-1,2				
	210-1,2				
	211-1,2				
	212-3,4				
	213-1,2				
	214-1,2				
	215-1,2				
	216-1,2				
5. Milk	D-25	Biros Farm	Biweekly: May-October Monthly: November-April	I-131 Gamma Isot.	Biweekly: May-October Monthly: November-April
6. Vegetables	Quad 1	Chris Locknar	Annually - two varieties from each location as available at harvest.	Gamma Isot. I-131	Annually Annually, on broad leaf vegetation.
	Quad 2	Robert Pagliano			
	Quad 3	Jim Bloom			
	Quad 4	Robyn Willis			
	Control	Glasscock Farm			
7. Ground/Well Water	D-23	Thorsen Well	Quarterly	Gamma Isot. Tritium	Quarterly
	D-35	Dresden Lock & Dam			
8. Surface Water	D-51	Dresden Lock & Dam	Weekly	Gross Beta Gamma Isot.	Monthly composite. Monthly composite.
	D-52 (C)	DesPlaines River, Upstream		Tritium	Quarterly composite.
9. Fish (at least two species)	D-28	Dresden Pool of Illinois River	Two times/year	Gamma Isot.	Two times/year on edible portions only.
	D-46 (C)	DesPlaines River, Upstream			
10. Sediments	D-27	Dresden Lock & Dam	Semiannually	Gamma Isot.	Semiannually
11. 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.
b.	2 miles to 6.2 miles		-	b. Using referenced information from county agricultural agents or other reliable sources.	

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

TABLE 5.0-2 (continued)

DRESDEN STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

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

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

Table 5.0-3

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 1st Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	104	0.01	0.030 (91/91) (0.016-0.048)	D-53, Grundy County Road 2.0 mi. S, Sector J	0.032 (13/13) (0.016-0.048)	0.030 (13/13) (0.016-0.047)	0
	Gamma Spec.	8						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	56	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	3	5	None	-	-	<LLD	0
	Gamma Spec.	3						
	Cs-134		15	None	-	-	<LLD	0
	Cs-137		18	None	-	-	<LLD	0
	Ba/La-140		15	None	-	-	<LLD	0
	Other Gammas		10-15	None	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	5.0 (2/3) (4.7-5.2)	D-52, DesPlaines River, 0.9 mi. ESE Sector F	6.4 (3/3) (5.0-7.8)	6.4 (3/3) (5.0-7.8)	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	711 (1/1)	D-51, Dresden Lock & Dam, 0.5 mi. NW Sector Q	711 (1/1)	<LLD	0
Well Water (pCi/L)	Tritium	2	200	570 (1/2)	D-23 Thorsen Well 0.7 mi. S, Sector J	570 (1/1)	None	0
	Gamma Spec.	2						
	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	88	9.7	25.8 (86/86) (19.0-32.0)	D-201-1, 4.5 mi. N Sector A	32.0 (1/1)	24.5 (2/2) (24.0-25.0)	0

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

Table 5.0-4

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY
Name of Facility DresdenNuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 2nd Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	104	0.01	0.020 (91/91) (0.013-0.030)	D-45[b], McKinley Woods Road, 1.5 mi. ENE, Sector D	0.021 (13/13) (0.015-0.029)	0.020 (13/13) (0.012-0.036)	0
	Gamma Spec.	8						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	48	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	6	0.5/5.0[c]	None	-	-	<LLD	0
	Gamma Spec.	6						
	Cs-134		15	None	-	-	<LLD	0
	Cs-137		18	None	-	-	<LLD	0
	Ba/La-140		15	None	-	-	<LLD	0
	Other Gamms		10-15	None	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec.	4						
	Cs-134		0.10	<LLD	-	-	<LLD	0
	Cs-137		0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas		0.20-0.30	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gamma Spec.	1						
	Cs-134		0.15	<LLD	-	-	None	0
	Cs-137		0.18	<LLD	-	-	None	0
	Other Gammas		0.10-0.60	<LLD	-	-	None	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[b] Locations D-03 and D-45 had identical means of 0.021 pCi/m^3. Only D-03 is detailed in this summary.
[c] 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 Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 2nd Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Surface Water (pCi/L)	Gross Beta 6	4	4.5 (1/3)	D-52, DesPlaines River, 0.9 mi. ESE, Sector F	6.5 (3/3) (6.0-7.5)	6.5 (3/3) (6.0-7.5)	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 2	200	458 (1/2)	D-23, Thorsen Well 0.7 mi. S, Sector J	458 (1/1)	None	0
	Gamma Spec. 2						
	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 88	9.7	21.2 (86/86) (16.0-28.0)	D-201-2, 4.5 mi N, Sector A	28.0 (1/1)	18.0 (2/2) (16.0-20.0)	0

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

Table 5.0-5

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 3rd Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 103	0.01	0.026 (88/91) (0.012-0.047)	D-12, Lisbon 10 mi. NW, Sector Q	0.029 (12/13) (0.019-0.050)	0.029 (12/13) (0.019-0.050)	0
	Gamma Spec. 8			-			
	Cs-134	0.01	<LLD	-	-	<LLD	0
	Cs-137	0.01	<LLD	-	-	<LLD	0
	Other Gammas	0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 56	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131 6	0.5	None	-	-	<LLD	0
	Gamma Spec. 6						
	Cs-134	15	None	-	-	<LLD	0
	Cs-137	18	None	-	-	<LLD	0
	Ba/La-140	15	None	-	-	<LLD	0
	Other Gammas	10-15	None	-	-	<LLD	0
Vegetation (pCi/g wet)	I-131 10	0.06	<LLD	-	-	<LLD	0
	Gamma Spec. 10						
	Cs-134	0.06	<LLD	-	-	<LLD	0
	Cs-137	0.08	<LLD	-	-	<LLD	0
	Other Gammas	0.01-0.10	<LLD	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta 6	4	5.1 (3/3) (4.7-5.5)	D-52 DesPlaines River 0.9 mi. ESE, Sector F	6.6 (3/3) (5.6-7.5)	6.6 (3/3) (5.6-7.5)	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	271 (1/1)	D-51, Dresden Lock & Dam, 0.5 mi. NW, Sector Q	271 (1/1)	<LLD	0

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

[b] Locations D-03 and D-45 had identical means of 0.028 pCi/m^3. Only D-03 is detailed in this summary.

Table 5.0-5 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy., Illinois Reporting Period 3rd Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Well Water (pCi/L)	Tritium 2	200	519 (1/2)	D-23, Thorsen Well 0.7 mi. S, Sector J	519 (1/1)	None	0
	Gamma Spec. 2						
	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 88	9.7	19.8 (86/86) (15.0-25.0)	D-110-3[b], 0.8 mi. SSW, Sector K	25.0 (1/1)	18.5 (2/2) (18.0-19.0)	0

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

[b] Locations D-110-3, D-201-1 and D-201-2 had identical means of 25.0 mR. Only D-110-3 is detailed in this summary.

Table 5.0-6

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 4th Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 103	0.01	0.030 (88/89) (0.017-0.062)	D-12, Lisbon, 10.0 mi. NW, Sector Q	0.031 (13/13) (0.021-0.063)	0.031 (13/13) (0.021-0.063)	0
	Gamma Spec. 8						
	Cs-134	0.01	<LLD	-	-	<LLD	0
	Cs-137	0.01	<LLD	-	-	<LLD	0
	Other Gammas	0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 48	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131 5	0.5/5.0[b]	None	-	-	<LLD	0
	Gamma Spec. 5						
	Cs-134	15	None	-	-	<LLD	0
	Cs-137	18	None	-	-	<LLD	0
	Ba/La-140	15	None	-	-	<LLD	0
	Other Gammas	10-15	None	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec. 4						
	Cs-134	0.10	<LLD	-	-	<LLD	0
	Cs-137	0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas	0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas	0.20-0.30	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gamma Spec. 1						
	Cs-134	0.15	<LLD	-	-	None	0
	Cs-137	0.18	<LLD	-	-	None	0
	Other Gammas	0.10-0.60	<LLD	-	-	None	0

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

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

Table 5.0-6 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility Dresden Nuclear Power Station Docket No. 50-10, 50-237, 50-249
Location of Facility Grundy, Illinois Reporting Period 4th Quarter 2002
(County, State)

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Surface Water (pCi/L)	Gross Beta	6	4	6.9 (3/3) (6.4-7.6)	D-52, DesPlaines River, 0.9 mi. ESE Sector F	7.9 (3/3) (6.2-9.4)	7.9 (3/3) (6.2-9.4)	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	1,974 (1/1)	D-51, Dresden Lock & Dam, 0.5 mi. NW, Sector Q	1,974 (1/1)	<LLD	0
Well Water (pCi/L)	Gamma Spec.	2						
	Cs-134		15	<LLD	-	-	None	0
	Cs-137		18	<LLD	-	-	None	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	None	0
	Tritium	2	200	411 (1/2)	D-23, Thorsen Well, 0.7 mi. S, Sector J	411 (1/1)	None	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	88	9.7	23.3 (86/86) (18.0-28.0)	D-110-3, 0.8 mi. SSW, Sector K	28 (1/1)	21.0 (2/2) (19.0-23.0)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[b] Locations D-110-3,4; D-201-1,2 and D-214-2 had identical means of 28 mR. Only D-110-3 is detailed in this summary.

APPENDIX II

METEOROLOGICAL DATA

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	5	0	0	0	5
ENE	0	0	1	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	1	0	1
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	3	0	0	3
SW	0	0	0	3	4	0	7
WSW	0	3	4	6	0	0	13
W	0	2	3	16	0	0	21
WNW	0	5	15	11	0	0	31
NW	0	2	10	3	0	0	15
NNW	0	1	1	2	1	0	5
Variable	0	0	0	0	0	0	0
Total	0	14	40	44	6	0	104

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	1	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	2	0	0	2
SE	0	0	0	0	1	0	1
SSE	0	0	1	0	0	0	1
S	0	0	0	2	2	0	4
SSW	0	0	0	8	0	0	8
SW	0	0	0	2	0	0	2
WSW	2	2	5	2	0	0	11
W	0	3	4	3	0	0	10
WNW	0	0	1	5	0	0	6
NW	0	1	2	2	0	0	5
NNW	0	0	3	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	2	6	17	26	3	0	54

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	0	2	0	0	2
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	1	0	1	0	0	2
S	0	0	0	2	3	0	5
SSW	0	0	0	1	0	0	1
SW	0	2	1	2	0	0	5
WSW	0	2	5	1	0	0	8
W	0	1	1	2	0	0	4
WNW	0	2	4	1	0	0	7
NW	0	0	2	0	0	0	2
NNW	0	5	2	0	1	0	8
Variable	0	0	0	0	0	0	0
Total	0	14	16	12	4	0	46

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	25	7	4	0	0	36
NNE	2	12	10	0	0	0	24
NE	0	23	15	14	0	0	52
ENE	1	16	6	0	0	0	23
E	1	8	21	1	0	0	31
ESE	0	1	7	2	0	0	10
SE	0	3	4	2	0	0	9
SSE	0	2	11	20	3	0	36
S	5	5	20	30	7	0	67
SSW	1	9	13	23	7	0	53
SW	1	6	17	10	2	0	36
WSW	1	5	18	8	0	0	32
W	1	10	29	42	5	10	97
WNW	1	9	24	30	0	0	64
NW	1	6	30	14	0	0	51
NNW	6	10	30	8	0	0	54
Variable	0	0	0	0	0	0	0
Total	21	150	262	208	24	10	675

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	6	11	1	0	0	0	18
NNE	6	9	5	0	0	0	20
NE	2	12	21	8	0	0	43
ENE	0	17	13	0	0	0	30
E	2	11	10	0	0	0	23
ESE	4	6	8	1	0	0	19
SE	5	7	21	1	0	0	34
SSE	5	21	42	34	6	1	109
S	2	28	43	37	18	3	131
SSW	7	33	40	23	6	0	109
SW	5	22	55	14	0	0	96
WSW	3	10	22	3	0	0	38
W	8	36	34	11	2	1	92
WNW	6	35	37	8	0	0	86
NW	5	19	10	2	0	0	36
NNW	7	27	42	2	0	0	78
Variable	0	0	0	0	0	0	0
Total	73	304	404	144	32	5	962

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	1	0	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	1	8	0	0	0	0	9
SE	0	1	1	0	0	0	2
SSE	3	2	0	0	0	0	5
S	2	13	3	0	0	0	18
SSW	5	40	6	0	0	0	51
SW	3	54	37	0	0	0	94
WSW	7	16	1	0	0	0	24
W	9	16	0	0	0	0	25
WNW	7	6	0	0	0	0	13
NW	8	4	0	0	0	0	12
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	47	160	48	0	0	0	255

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	4	2	0	0	0	6
SE	0	1	0	0	0	0	1
SSE	0	0	0	0	0	0	0
S	1	1	0	0	0	0	2
SSW	0	6	0	0	0	0	6
SW	1	35	3	0	0	0	39
WSW	0	3	0	0	0	0	3
W	1	0	0	0	0	0	1
WNW	1	1	0	0	0	0	2
NW	2	0	0	0	0	0	2
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	7	51	5	0	0	0	63

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	3	1	0	0	4
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	3	0	3
W	0	1	0	0	3	2	6
WNW	0	0	7	0	2	0	9
NW	0	0	2	1	0	0	3
NNW	0	0	0	0	0	1	1
Variable	0	0	0	0	0	0	0
Total	0	1	12	2	8	3	26

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	0	0	0	0	1
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	1	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	1	1
SSE	1	0	1	0	0	0	2
S	0	0	0	0	2	3	5
SSW	0	0	0	2	2	0	4
SW	0	0	0	0	3	0	3
WSW	0	3	3	1	2	0	9
W	0	1	1	4	5	2	13
WNW	1	4	2	2	8	1	18
NW	0	0	6	1	1	2	10
NNW	0	0	0	0	0	1	1
Variable	0	0	0	0	0	0	0
Total	2	9	14	11	23	10	69

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	2	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	1	1	2	0	4
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	1	0	1
SE	0	1	1	0	0	1	3
SSE	0	1	1	0	0	1	3
S	0	0	1	0	5	1	7
SSW	0	0	0	3	3	0	6
SW	0	0	1	0	3	3	7
WSW	0	2	6	4	2	0	14
W	0	1	5	3	5	1	15
WNW	0	2	4	3	4	1	14
NW	0	0	2	3	0	1	6
NNW	0	2	0	0	0	1	3
Variable	0	0	0	0	0	0	0
Total	0	9	22	19	25	10	85

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: 0

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	4	25	18	6	2	58
NNE	0	7	16	9	6	0	38
NE	1	5	28	27	15	6	82
ENE	2	11	27	8	0	0	48
E	1	5	11	21	4	0	42
ESE	0	0	6	3	2	0	11
SE	1	1	3	7	1	0	13
SSE	0	2	3	25	22	4	56
S	0	5	7	29	33	11	85
SSW	1	6	7	27	24	14	79
SW	1	5	13	19	8	3	49
WSW	2	5	16	18	8	6	55
W	0	3	15	24	45	34	121
WNW	0	4	8	29	48	9	98
NW	1	5	5	20	22	6	59
NNW	0	7	8	38	14	7	74
Variable	0	0	0	0	0	0	0
Total	13	75	198	322	258	102	968

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	4	9	8	3	0	25
NNE	1	1	6	1	0	0	9
NE	1	3	4	1	0	0	9
ENE	0	2	3	5	0	0	10
E	1	3	4	2	1	0	11
ESE	4	2	5	2	2	0	15
SE	0	3	4	14	0	0	21
SSE	2	2	4	19	18	9	54
S	1	3	10	29	28	33	104
SSW	1	1	16	41	29	12	100
SW	0	2	20	63	44	5	134
WSW	2	2	20	25	21	0	70
W	0	5	20	30	10	3	68
WNW	0	3	8	33	12	0	56
NW	4	4	10	14	4	0	36
NNW	0	1	10	25	17	0	53
Variable	0	0	0	0	0	0	0
Total	18	41	153	312	189	62	775

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	2	0	0	0	3
NNE	1	0	2	0	0	0	3
NE	0	0	1	0	0	0	1
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	2	0	1	0	3
SSE	2	0	0	5	0	0	7
S	0	0	0	1	1	0	2
SSW	1	1	1	6	2	0	11
SW	0	1	3	32	10	0	46
WSW	0	3	11	41	9	0	64
W	1	3	4	11	4	0	23
WNW	0	0	5	7	0	0	12
NW	0	0	9	2	0	0	11
NNW	0	0	5	1	0	0	6
Variable	0	0	0	0	0	0	0
Total	6	8	46	106	27	0	193

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

Dresden Nuclear Station

Period of Record: January - March 2002
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

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

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	0	0	0	0	3
NNE	0	4	1	0	0	0	5
NE	0	5	9	0	0	0	14
ENE	0	4	7	0	0	0	11
E	0	4	1	0	0	0	5
ESE	0	0	2	0	0	0	2
SE	0	0	0	0	0	0	0
SSE	1	4	1	0	0	0	6
S	0	4	2	5	0	0	11
SSW	0	5	1	6	0	0	12
SW	1	6	2	4	0	0	13
WSW	0	8	4	2	0	0	14
W	0	4	2	0	8	0	14
WNW	1	1	12	4	1	0	19
NW	0	3	8	2	0	0	13
NNW	0	3	11	0	0	0	14
Variable	0	0	0	0	0	0	0
Total	3	58	63	23	9	0	156

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	6	0	0	0	0	7
NNE	0	4	1	0	0	0	5
NE	0	3	3	0	0	0	6
ENE	0	1	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	0	2	3	0	0	0	5
SE	0	0	0	0	0	0	0
SSE	0	4	3	2	1	0	10
S	0	2	2	3	1	0	8
SSW	0	2	5	3	2	0	12
SW	0	1	0	1	0	0	2
WSW	0	2	4	2	0	0	8
W	0	0	6	1	0	0	7
WNW	0	2	4	2	0	0	8
NW	0	4	0	0	0	0	4
NNW	0	2	1	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	1	36	32	14	4	0	87

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	5	1	0	0	0	8
NNE	0	2	1	0	0	0	3
NE	0	5	2	0	0	0	7
ENE	1	0	0	0	0	0	1
E	2	2	3	0	0	0	7
ESE	0	0	2	0	0	0	2
SE	0	3	2	1	0	0	6
SSE	0	4	4	2	0	0	10
S	0	3	0	5	1	0	9
SSW	0	1	5	2	0	0	8
SW	0	5	1	0	0	0	6
WSW	0	1	8	1	0	0	10
W	0	1	1	0	1	0	3
WNW	0	2	8	0	0	0	10
NW	0	2	1	0	0	0	3
NNW	1	2	3	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	6	38	42	11	2	0	99

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	4	17	8	0	0	0	29
NNE	5	7	13	0	0	0	25
NE	4	35	35	4	0	0	78
ENE	0	20	13	0	0	0	33
E	1	15	20	4	1	0	41
ESE	3	7	11	16	1	0	38
SE	3	23	9	1	0	0	36
SSE	2	16	22	5	0	0	45
S	2	10	14	12	6	0	44
SSW	4	15	12	11	8	0	50
SW	3	13	7	7	0	0	30
WSW	2	22	13	1	1	0	39
W	1	19	21	8	2	0	51
WNW	1	18	23	11	0	0	53
NW	5	20	19	3	0	0	47
NNW	5	19	10	1	0	0	35
Variable	0	0	0	0	0	0	0
Total	45	276	250	84	19	0	674

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	6	1	0	0	0	9
NNE	3	6	1	0	0	0	10
NE	13	31	10	0	0	0	54
ENE	6	24	4	0	0	0	34
E	9	43	11	0	0	0	63
ESE	5	38	17	3	0	0	63
SE	4	17	13	3	0	0	37
SSE	2	37	49	11	0	0	99
S	12	24	43	39	2	0	120
SSW	11	26	26	21	12	1	97
SW	5	27	20	3	0	0	55
WSW	6	18	12	0	3	0	39
W	8	41	12	1	0	0	62
WNW	5	29	11	0	0	0	45
NW	5	38	10	5	0	0	58
NNW	11	17	8	1	0	0	37
Variable	0	0	0	0	0	0	0
Total	107	422	248	87	17	1	882

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	7	0	0	0	0	0	7
NNE	4	0	0	0	0	0	4
NE	1	0	0	0	0	0	1
ENE	1	0	0	0	0	0	1
E	4	3	0	0	0	0	7
ESE	5	6	1	0	0	0	12
SE	5	7	1	0	0	0	13
SSE	7	14	2	0	0	0	23
S	7	8	1	0	0	0	16
SSW	5	17	1	0	0	0	23
SW	13	19	4	0	0	0	36
WSW	8	7	1	0	0	0	16
W	8	4	0	0	0	0	12
WNW	7	4	0	0	0	0	11
NW	5	4	0	0	0	0	9
NNW	8	2	0	0	0	0	10
Variable	0	0	0	0	0	0	0
Total	95	95	11	0	0	0	201

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	0	0	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	2	0	0	0	0	0	2
E	0	0	0	0	0	0	0
ESE	0	1	0	0	0	0	1
SE	3	0	0	0	0	0	3
SSE	2	1	0	0	0	0	3
S	7	0	0	0	0	0	7
SSW	8	3	0	0	0	0	11
SW	11	17	1	0	0	0	29
WSW	7	4	0	0	0	0	11
W	2	2	0	0	0	0	4
WNW	1	1	0	0	0	0	2
NW	3	0	0	0	0	0	3
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	48	29	1	0	0	0	78

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

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	2	1	0	0	3
ENE	0	1	3	1	0	0	5
E	0	1	1	0	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	2	0	0	0	0	2
S	0	0	0	0	3	2	5
SSW	0	2	2	1	0	0	5
SW	0	2	0	0	0	0	2
WSW	0	1	3	1	1	0	6
W	0	2	0	0	0	3	5
WNW	0	0	0	3	2	1	6
NW	0	0	1	1	3	0	5
NNW	0	0	0	6	1	0	7
Variable	0	0	0	0	0	0	0
Total	0	11	13	14	10	6	54

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: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	1	0	0	0	4
NNE	0	1	1	2	0	0	4
NE	0	3	2	3	0	0	8
ENE	0	2	4	0	0	0	6
E	0	0	0	1	0	0	1
ESE	0	3	2	1	0	0	6
SE	0	1	1	0	0	0	2
SSE	0	3	2	5	1	0	11
S	0	5	4	0	6	1	16
SSW	0	0	3	1	5	0	9
SW	0	3	2	3	2	0	10
WSW	0	4	2	2	1	0	9
W	0	1	1	2	0	3	7
WNW	0	0	3	5	2	2	12
NW	0	1	2	4	1	0	8
NNW	0	1	1	3	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	31	31	32	18	6	118

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	4	0	0	0	7
NNE	0	3	2	1	0	0	6
NE	0	2	6	4	0	0	12
ENE	0	3	0	0	0	0	3
E	0	1	4	0	1	0	6
ESE	0	3	1	3	0	0	7
SE	0	6	5	2	0	0	13
SSE	0	1	6	2	0	0	9
S	0	2	5	2	5	2	16
SSW	0	0	3	3	4	5	15
SW	0	1	1	1	1	0	4
WSW	0	2	5	9	2	0	18
W	0	1	4	3	0	3	11
WNW	0	0	3	5	2	1	11
NW	0	2	4	2	0	0	8
NNW	1	2	2	3	0	0	8
Variable	0	0	0	0	0	0	0
Total	1	32	55	40	15	11	154

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	11	8	18	5	2	45
NNE	2	4	16	9	8	0	39
NE	1	13	31	42	9	0	96
ENE	0	17	39	10	0	0	66
E	0	8	15	19	9	3	54
ESE	1	3	9	12	17	3	45
SE	1	11	5	3	3	0	23
SSE	1	10	21	19	8	0	59
S	0	8	7	13	15	3	46
SSW	0	5	11	13	7	11	47
SW	1	9	15	11	4	1	41
WSW	0	3	14	11	4	3	35
W	0	5	15	16	9	4	49
WNW	1	4	19	30	16	6	76
NW	1	7	28	20	10	2	68
NNW	2	7	10	23	6	0	48
Variable	0	0	0	0	0	0	0
Total	12	125	263	269	130	38	837

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: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	9	10	0	0	23
NNE	2	2	0	2	0	0	6
NE	2	3	8	3	2	0	18
ENE	2	5	9	4	0	0	20
E	0	3	14	14	0	0	31
ESE	3	4	13	21	6	0	47
SE	0	2	21	21	0	0	44
SSE	0	8	17	41	22	0	88
S	0	5	13	21	31	15	85
SSW	0	4	20	31	24	17	96
SW	0	6	24	36	16	0	82
WSW	3	5	14	17	7	2	48
W	1	4	19	18	8	0	50
WNW	0	6	15	23	1	0	45
NW	1	3	6	21	4	3	38
NNW	1	2	14	15	1	0	33
Variable	0	0	0	0	0	0	0
Total	15	66	216	298	122	37	754

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: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	0	0	0	0	3
NNE	0	0	4	0	0	0	4
NE	0	0	1	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	1	2	1	0	0	4
ESE	0	1	2	5	0	0	8
SE	0	1	3	4	0	0	8
SSE	0	2	4	2	0	0	8
S	0	3	3	8	4	1	19
SSW	0	1	2	3	0	0	6
SW	0	5	6	15	0	0	26
WSW	0	3	13	16	2	0	34
W	0	1	12	3	0	0	16
WNW	1	1	2	1	1	0	6
NW	0	1	1	3	0	0	5
NNW	1	0	3	2	0	0	6
Variable	0	0	0	0	0	0	0
Total	2	23	58	63	7	1	154

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 81

Dresden Nuclear Station

Period of Record: April - June 2002
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	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	1	2	4	0	0	7
SW	0	1	3	4	2	0	10
WSW	0	1	4	2	1	0	8
W	0	0	2	1	0	0	3
WNW	0	0	0	1	0	0	1
NW	0	0	2	0	0	0	2
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	0	3	14	12	3	0	32

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: 81

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	11	4	0	0	0	15
NNE	0	17	0	0	0	0	17
NE	1	31	18	0	0	0	50
ENE	0	38	14	0	0	0	52
E	0	19	17	0	0	0	36
ESE	1	11	8	0	0	0	20
SE	0	10	6	2	0	0	18
SSE	0	13	9	0	0	0	22
S	0	17	9	2	0	0	28
SSW	0	15	17	19	1	0	52
SW	0	25	28	7	0	0	60
WSW	0	31	28	1	0	0	60
W	0	13	9	0	0	0	22
WNW	0	9	4	0	0	0	13
NW	0	6	1	0	0	0	7
NNW	0	14	0	0	0	0	14
Variable	0	0	0	0	0	0	0
Total	2	280	172	31	1	0	486

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	0	0	0	0	3
NNE	1	1	0	0	0	0	2
NE	0	3	2	0	0	0	5
ENE	0	1	3	0	0	0	4
E	0	7	2	0	0	0	9
ESE	1	3	1	0	0	0	5
SE	0	3	1	0	0	0	4
SSE	0	5	3	3	0	0	11
S	0	1	4	2	0	0	7
SSW	1	1	1	3	0	0	6
SW	0	6	4	1	0	0	11
WSW	0	4	5	0	0	0	9
W	0	3	2	0	0	0	5
WNW	0	2	1	0	0	0	3
NW	1	1	0	0	0	0	2
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	4	44	30	9	0	0	87

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	1	0	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	1	2	2	0	0	0	5
ENE	2	0	0	0	0	0	2
E	0	0	3	0	0	0	3
ESE	0	3	1	0	0	0	4
SE	0	3	3	0	0	0	6
SSE	0	0	1	0	0	0	1
S	1	2	3	3	0	0	9
SSW	0	1	2	5	0	0	8
SW	2	4	3	0	0	0	9
WSW	2	4	2	0	0	0	8
W	1	3	2	0	0	0	6
WNW	0	2	1	0	0	0	3
NW	0	5	0	0	0	0	5
NNW	1	1	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	11	31	23	8	0	0	73

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	5	0	0	0	0	5
NNE	2	10	0	0	0	0	12
NE	1	12	10	0	0	0	23
ENE	1	23	5	0	0	0	29
E	1	10	7	0	0	0	18
ESE	1	8	6	0	0	0	15
SE	1	8	7	0	0	0	16
SSE	3	18	4	1	0	0	26
S	6	11	12	8	0	0	37
SSW	3	13	18	12	1	0	47
SW	4	11	9	5	0	0	29
WSW	6	16	5	1	0	0	28
W	1	16	2	0	0	0	19
WNW	3	15	2	0	0	0	20
NW	3	8	0	0	0	0	11
NNW	2	8	1	1	0	0	12
Variable	0	0	0	0	0	0	0
Total	38	192	88	28	1	0	347

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	15	9	1	0	0	0	25
NNE	19	29	0	0	0	0	48
NE	9	72	20	0	0	0	101
ENE	9	45	3	0	0	0	57
E	7	40	7	0	0	0	54
ESE	4	25	0	0	0	0	29
SE	1	9	5	0	0	0	15
SSE	2	51	17	2	0	0	72
S	6	50	45	1	0	0	102
SSW	6	30	18	2	0	0	56
SW	9	26	16	0	0	0	51
WSW	8	15	5	1	0	0	29
W	9	18	0	1	0	0	28
WNW	10	18	2	0	0	0	30
NW	11	9	2	0	0	0	22
NNW	12	23	3	0	0	0	38
Variable	0	0	0	0	0	0	0
Total	137	469	144	7	0	0	757

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	10	0	0	0	0	0	10
NNE	14	2	0	0	0	0	16
NE	8	6	0	0	0	0	14
ENE	7	0	0	0	0	0	7
E	12	12	2	0	0	0	26
ESE	7	20	0	0	0	0	27
SE	12	4	0	0	0	0	16
SSE	4	9	0	0	0	0	13
S	11	11	3	0	0	0	25
SSW	12	5	1	0	0	0	18
SW	12	16	1	0	0	0	29
WSW	7	6	0	0	0	0	13
W	12	5	0	0	0	0	17
WNW	14	4	0	0	0	0	18
NW	13	2	0	0	0	0	15
NNW	9	1	0	0	0	0	10
Variable	0	0	0	0	0	0	0
Total	164	103	7	0	0	0	274

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	0	0	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	1	0	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	5	2	0	0	0	0	7
SE	4	2	0	0	0	0	6
SSE	5	2	0	0	0	0	7
S	6	2	0	0	0	0	8
SSW	14	2	0	0	0	0	16
SW	25	15	0	0	0	0	40
WSW	12	3	0	0	0	0	15
W	11	0	0	0	0	0	11
WNW	12	1	0	0	0	0	13
NW	21	1	0	0	0	0	22
NNW	17	2	0	0	0	0	19
Variable	0	0	0	0	0	0	0
Total	136	32	0	0	0	0	168

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	7	0	0	0	8
NNE	0	0	12	6	0	0	18
NE	0	7	16	4	0	0	27
ENE	0	17	19	0	0	0	36
E	0	3	10	7	0	0	20
ESE	0	2	3	2	0	0	7
SE	0	2	5	0	1	0	8
SSE	0	4	7	1	0	0	12
S	0	7	5	1	1	0	14
SSW	0	6	7	8	6	1	28
SW	0	8	17	5	2	0	32
WSW	0	17	18	4	0	0	39
W	0	10	3	0	0	0	13
WNW	0	2	7	6	0	0	15
NW	0	1	3	0	0	0	4
NNW	0	1	4	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	88	143	44	10	1	286

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	2	1	0	6
NNE	0	1	2	2	0	0	5
NE	0	1	2	2	0	0	5
ENE	0	5	9	0	0	0	14
E	0	3	8	3	0	0	14
ESE	0	3	0	2	0	0	5
SE	0	3	8	0	0	0	11
SSE	0	3	2	1	0	0	6
S	0	8	4	2	1	0	15
SSW	0	5	2	4	4	1	16
SW	0	4	9	4	2	0	19
WSW	0	5	6	4	0	0	15
W	0	2	2	1	0	0	5
WNW	0	1	2	0	0	0	3
NW	0	1	2	0	0	0	3
NNW	0	4	1	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	49	62	27	8	1	147

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: 0

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	2	1	0	0	6
NNE	1	1	2	1	1	0	6
NE	0	1	3	2	0	0	6
ENE	1	5	7	0	0	0	13
E	0	4	6	2	0	0	12
ESE	0	5	1	1	0	0	7
SE	0	2	2	0	0	0	4
SSE	0	6	2	3	0	0	11
S	0	1	2	6	1	0	10
SSW	0	1	5	3	6	0	15
SW	1	5	7	6	0	1	20
WSW	0	6	5	2	1	0	14
W	0	5	2	2	0	0	9
WNW	0	4	2	2	0	0	8
NW	0	3	1	0	0	0	4
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	4	51	50	31	9	1	146

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	3	6	10	3	0	24
NNE	0	0	6	15	0	0	21
NE	0	5	5	10	4	0	24
ENE	1	18	38	6	0	0	63
E	2	9	10	17	0	0	38
ESE	2	10	8	2	0	0	22
SE	2	11	13	2	0	0	28
SSE	1	16	19	3	1	0	40
S	1	9	11	19	8	0	48
SSW	4	10	16	15	18	3	66
SW	1	9	12	20	8	0	50
WSW	2	8	16	8	3	0	37
W	1	11	19	3	0	1	35
WNW	4	7	9	5	1	0	26
NW	0	8	6	0	0	0	14
NNW	1	4	6	2	1	1	15
Variable	0	0	0	0	0	0	0
Total	24	138	200	137	47	5	551

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	1	6	13	3	0	26
NNE	0	2	8	16	2	0	28
NE	1	5	20	26	2	0	54
ENE	1	19	53	0	0	0	73
E	0	10	30	21	0	0	61
ESE	2	8	6	13	3	0	32
SE	0	1	15	10	0	0	26
SSE	0	5	15	18	3	0	41
S	1	2	11	54	12	0	80
SSW	0	4	14	54	21	0	93
SW	1	5	12	25	7	0	50
WSW	0	4	13	11	2	1	31
W	1	6	7	7	0	0	21
WNW	0	5	4	7	0	0	16
NW	1	4	6	14	2	0	27
NNW	1	5	6	9	2	0	23
Variable	0	0	0	0	0	0	0
Total	12	86	226	298	59	1	682

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: 0

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	5	0	1	0	7
NNE	1	2	4	3	0	0	10
NE	0	4	8	4	0	0	16
ENE	1	10	9	0	0	0	20
E	0	6	3	2	0	0	11
ESE	2	5	1	8	1	0	17
SE	1	3	6	19	0	0	29
SSE	0	5	16	6	0	0	27
S	1	7	4	3	2	0	17
SSW	0	1	5	2	1	0	9
SW	2	5	17	5	1	0	30
WSW	2	11	12	12	0	0	37
W	1	6	15	2	0	0	24
WNW	1	2	3	4	0	0	10
NW	1	2	6	6	0	0	15
NNW	1	0	4	2	0	0	7
Variable	0	0	0	0	0	0	0
Total	15	69	118	78	6	0	286

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

Dresden Nuclear Station

Period of Record: July - September 2002
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	5	3	0	0	9
NNE	0	2	2	0	0	0	4
NE	1	4	5	0	0	0	10
ENE	1	9	0	0	0	0	10
E	0	4	1	0	0	0	5
ESE	0	0	0	0	1	0	1
SE	0	0	3	1	2	0	6
SSE	0	0	6	5	0	0	11
S	3	1	0	0	0	0	4
SSW	1	2	2	0	0	0	5
SW	0	2	4	3	0	0	9
WSW	0	5	1	1	0	0	7
W	5	2	4	1	0	0	12
WNW	1	1	4	0	0	0	6
NW	2	0	2	0	0	0	4
NNW	1	1	1	2	0	0	5
Variable	0	0	0	0	0	0	0
Total	16	33	40	16	3	0	108

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	5	0	0	0	7
NNE	0	1	0	0	0	0	1
NE	0	3	0	0	0	0	3
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	4	0	0	0	4
SSE	0	0	5	0	0	0	5
S	0	0	0	2	0	0	2
SSW	0	0	3	3	0	0	6
SW	0	3	3	4	0	0	10
WSW	0	3	5	2	0	0	10
W	0	2	5	4	0	0	11
WNW	1	4	7	0	0	0	12
NW	1	8	15	0	0	0	24
NNW	0	5	16	0	0	0	21
Variable	0	0	0	0	0	0	0
Total	2	31	69	15	0	0	117

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	2	0	0	0	5
NNE	0	0	0	0	0	0	0
NE	0	2	1	0	0	0	3
ENE	0	1	1	0	0	0	2
E	0	0	1	0	0	0	1
ESE	0	1	0	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	0	2	1	0	0	0	3
S	0	0	1	0	0	0	1
SSW	0	1	2	3	2	0	8
SW	0	0	5	0	0	0	5
WSW	1	0	5	0	0	0	6
W	0	0	3	1	0	0	4
WNW	1	3	3	0	0	0	7
NW	0	1	0	0	0	0	1
NNW	1	2	4	0	0	0	7
Variable	0	0	0	0	0	0	0
Total	3	17	29	4	2	0	55

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	0	0	0	0	3
NNE	0	1	1	0	0	0	2
NE	0	3	2	0	0	0	5
ENE	0	2	1	0	0	0	3
E	0	2	4	0	0	0	6
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	2	1	1	0	0	4
SSW	0	3	1	1	0	0	5
SW	0	1	3	5	0	0	9
WSW	0	0	3	1	0	0	4
W	0	0	1	1	0	0	2
WNW	0	1	2	0	0	0	3
NW	1	2	0	1	0	0	4
NNW	0	7	1	0	0	0	8
Variable	0	0	0	0	0	0	0
Total	2	27	21	10	0	0	60

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	5	16	9	1	0	0	31
NNE	3	20	9	0	0	0	32
NE	1	24	22	0	0	0	47
ENE	2	9	6	0	0	0	17
E	1	11	22	16	0	0	50
ESE	0	8	12	7	0	0	27
SE	2	3	6	1	0	0	12
SSE	1	6	10	0	1	0	18
S	0	11	13	10	2	0	36
SSW	0	8	12	8	9	0	37
SW	0	10	22	10	3	0	45
WSW	1	17	9	12	2	0	41
W	1	17	40	28	1	0	87
WNW	1	20	25	3	0	0	49
NW	1	20	22	6	1	0	50
NNW	0	42	19	8	0	0	69
Variable	0	0	0	0	0	0	0
Total	19	242	258	110	19	0	648

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	7	30	1	0	0	0	38
NNE	4	36	5	0	0	0	45
NE	5	24	8	0	0	0	37
ENE	2	20	7	0	0	0	29
E	3	48	10	1	0	0	62
ESE	1	23	7	5	0	0	36
SE	3	13	5	3	1	0	25
SSE	6	23	15	12	5	2	63
S	6	21	23	26	15	1	92
SSW	4	23	25	23	0	0	75
SW	6	16	31	15	0	0	68
WSW	7	17	13	6	0	0	43
W	10	64	50	24	2	0	150
WNW	9	42	15	6	0	0	72
NW	7	40	37	3	0	0	87
NNW	11	41	11	5	0	0	68
Variable	0	0	0	0	0	0	0
Total	91	481	263	129	23	3	990

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	0	0	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	2	0	0	0	0	0	2
E	6	6	1	0	0	0	13
ESE	2	12	0	0	0	0	14
SE	5	1	0	0	0	0	6
SSE	9	9	0	0	0	0	18
S	14	27	0	0	0	0	41
SSW	14	31	3	0	0	0	48
SW	10	25	3	0	0	0	38
WSW	5	9	0	0	0	0	14
W	11	11	0	0	0	0	22
WNW	4	5	0	0	0	0	9
NW	8	2	0	0	0	0	10
NNW	4	10	0	0	0	0	14
Variable	0	0	0	0	0	0	0
Total	96	148	7	0	0	0	251

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	3	0	0	0	0	0	3
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	3	0	0	0	0	3
SE	1	0	0	0	0	0	1
SSE	3	0	0	0	0	0	3
S	6	6	0	0	0	0	12
SSW	11	9	0	0	0	0	20
SW	7	13	0	0	0	0	20
WSW	2	1	0	0	0	0	3
W	3	0	0	0	0	0	3
WNW	5	0	0	0	0	0	5
NW	4	1	0	0	0	0	5
NNW	3	0	0	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	48	33	0	0	0	0	81

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	2	3	0	0	5
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	1
SW	0	0	0	1	0	0	1
WSW	0	1	1	0	0	0	2
W	0	0	0	3	0	0	3
WNW	0	1	0	2	1	0	4
NW	0	1	3	5	0	0	9
NNW	1	1	5	6	1	0	14
Variable	0	0	0	0	0	0	0
Total	1	4	11	21	2	0	39

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	1	0	0	4
NNE	0	0	3	0	0	0	3
NE	0	0	4	1	0	0	5
ENE	0	1	0	0	0	0	1
E	0	0	1	4	0	0	5
ESE	0	2	0	0	0	0	2
SE	0	1	1	0	0	0	2
SSE	0	1	1	1	0	0	3
S	0	0	2	0	0	0	2
SSW	0	2	2	3	3	0	10
SW	0	1	2	8	0	0	11
WSW	0	2	5	3	2	0	12
W	0	0	3	4	3	0	10
WNW	1	0	5	5	0	0	11
NW	0	1	2	1	1	0	5
NNW	0	3	6	1	1	0	11
Variable	0	0	0	0	0	0	0
Total	1	14	40	32	10	0	97

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

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	14	23	13	3	2	55
NNE	1	5	27	13	6	0	52
NE	1	11	39	14	3	0	68
ENE	0	13	33	5	0	0	51
E	1	9	22	37	13	0	82
ESE	1	5	7	10	10	4	37
SE	0	2	4	4	0	0	10
SSE	0	1	9	9	2	6	27
S	3	2	12	12	12	12	53
SSW	0	2	19	9	18	9	57
SW	0	5	15	26	8	6	60
WSW	0	7	18	10	8	2	45
W	1	5	21	38	44	11	120
WNW	2	6	22	42	16	5	93
NW	0	5	20	26	8	11	70
NNW	0	7	46	24	11	4	92
Variable	0	0	0	0	0	0	0
Total	10	99	337	292	162	72	972

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: 3

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	15	21	2	0	38
NNE	0	6	14	21	0	0	41
NE	0	3	5	8	0	0	16
ENE	0	7	5	1	0	0	13
E	1	6	14	7	1	0	29
ESE	0	2	5	8	2	2	19
SE	0	4	8	10	4	3	29
SSE	0	5	8	8	5	2	28
S	0	2	15	7	21	15	60
SSW	0	3	16	29	26	13	87
SW	0	2	14	43	28	7	94
WSW	0	6	13	11	7	2	39
W	0	7	27	37	22	4	97
WNW	0	3	11	34	9	1	58
NW	0	6	8	27	10	0	51
NNW	0	2	16	22	9	2	51
Variable	0	0	0	0	0	0	0
Total	1	64	194	294	146	51	750

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 4
Hours of missing stability measurements in all stability classes: 3

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	1	0	6	5	0	13
NNE	1	0	1	2	0	0	4
NE	0	0	3	1	0	0	4
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	1	2	2	11	1	0	17
SE	2	1	1	7	1	0	12
SSE	1	3	2	2	0	0	8
S	0	4	3	4	0	0	11
SSW	0	0	2	14	1	0	17
SW	0	1	9	36	2	0	48
WSW	3	4	15	10	0	0	32
W	0	2	23	5	3	0	33
WNW	0	2	5	3	1	0	11
NW	1	3	5	7	0	0	16
NNW	0	2	6	10	0	0	18
Variable	0	0	0	0	0	0	0
Total	10	25	77	118	14	0	244

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: 3

Dresden Nuclear Station

Period of Record: October - December2002
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	1	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	1	0	0	0	0	1
ENE	0	1	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	0	0	0	1	1	0	2
SE	1	0	0	0	0	0	1
SSE	0	1	0	0	0	0	1
S	0	2	3	1	1	0	7
SSW	0	0	5	6	4	0	15
SW	0	3	0	2	4	0	9
WSW	0	3	0	2	0	0	5
W	0	0	1	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	1	1	0	0	2
NNW	0	0	1	1	0	0	2
Variable	0	0	0	0	0	0	0
Total	1	12	11	15	10	0	49

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: 3

APPENDIX III

2002 REMP SAMPLE RESULTS

TABLE OF CONTENTS

LIST OF TABLES

1.0 INTRODUCTION

The following constitutes the 2002 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the Dresden Nuclear Power Station, Morris, Illinois. Results of completed analyses are presented in the attached tables. Missing entries indicate analyses that are not completed and the results will appear in subsequent reports.

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

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

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

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

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

TLD data is provided by Exelon Generation Company.

Deviations from Scheduled Sampling and Corrective Actions Taken

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

Unusual Environmental Measurements

Sample Type	Location Code	Collection Date	Comments
None for 2002.			

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Expected Collection Date	Reason
A	D-53	09-06-02	Pump found running but not pumping; veins had shattered. Collector removed pump for service.
A	D-45	11-29-02	Pump running but cycling on and off; timer read zero. Filter very light; not a viable sample. Collector replaced pump.
TLD	Other	12-27-02	TLD D-103-1 found missing during quarterly exchange; collector placed new 1st quarter 2003 TLD.

3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	D-12	03-01-02	No apparent reason for low meter reading of 160.6 hrs.
A/I	D-12	03-15-02	Low reading of 116.1 hrs. possibly due to storms in area.
A/I	D-53	05-10-02	No apparent reason for low reading of 153.8 hrs.
A	D-04	05-17-02	Low reading of 156.5 hours possibly due to power outage.
A/I	D-04	06-07-02	Estimated reading of 170.3 hrs.; replaced defective timer.
A/I	D-07	06-07-02	No apparent reason for low reading of 159.2 hrs.
A	D-04	06-28-02	Low reading of 128.2 hours possibly due to thermal coupling shutting off pump.
A	D-07	06-28-02	Low reading of 153.9 hours possibly due to thermal coupling shutting off pump.
A	D-12	06-28-02	Low reading of 103.7 hours possibly due to power outage.
A	D-53	06-28-02	Low reading of 152.5 hours possibly due to thermal coupling shutting off pump.
A/I	D-04	07-05-02	Low reading of 149.3 hrs. believed caused by thermal coupling shutting off pump.
A/I	D-07	07-05-02	Low reading of 137.7 hrs. believed caused by thermal coupling shutting off pump.
A/I	D-12	07-05-02	Low reading of 147.6 hrs. believed caused by thermal coupling shutting off pump.
A/I	D-45	07-05-02	Low reading of 152.5 hrs. believed caused by thermal coupling shutting off pump.
A	D-45	07-12-02	Low reading of 157.0 hrs. probably due to thermal coupling shutting off pump.
A	D-53	07-12-02	Low reading of 158.4 hrs. probably due to thermal coupling shutting off pump.
A/I	D-04	07-19-02	Low reading of 149.3 hrs. due to thermal coupling shutting off pump.
A/I	D-07	07-19-02	Low reading of 152.7 hrs. due to thermal coupling shutting off pump.

3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	D-45	07-19-02	Low reading of 103.1 hrs. due to thermal coupling shutting off pump.
A	D-04	07-26-02	Low reading of 153.3 hrs. possibly due to thermal coupling shutting off pump.
A	D-07	07-26-02	Low reading of 156.5 hrs. possibly due to thermal coupling shutting off pump.
A/I	D-07	08-02-02	Low reading of 154.7 hrs. possibly due to thermal coupling shutting off pump.
A	D-02	08-12-02	Backup collector denied onsite access on 08-09-02; followed proper procedure for notification of inability to collect samples. Samples collected on 08-12-02.
A	D-03	08-12-02	Backup collector denied onsite access on 08-09-02; followed proper procedure for notification of inability to collect samples. Samples collected on 08-12-02.
A/I	D-03	08-16-02	Low reading of 97.7 due to 4-day running time; sample last collected on 08-12-02.
A/I	D-04	08-16-02	Low reading of 122.7 possibly due to thermal protectors shutting down pump; pump removed for annual service.
A/I	D-45	08-16-02	Low reading of 162.3 possibly due to thermal protectors shutting down pump.
A/I	D-02	08-19-02	Backup collector denied onsite access on 08-16-02; was told to return on 08-19-02 to collect sample. Program Coordinator informed of schedule change by D. Nestle of Dresden Station on 08-16-02.
A	D-07	09-06-02	Low reading of 162.7 hrs. possibly due to thermal coupling shutting off pump.
A	D-45	09-06-02	Low reading of 160.1 hrs. possibly due to thermal coupling shutting off pump.
A/I	D-07	09-13-02	Low reading of 157.8 hrs. due to thermal coupling shutting off pump.
A/I	D-45	09-13-02	Low reading of 153.8 hrs. due to thermal coupling shutting off pump.

3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	D-53	09-13-02	Low reading of 7.6 hrs. due to thermal coupling shutting off pump; not enough run time for viable sample. (NOTE: Sample, after analysis was determined to be viable; used estimated volume for calculation.)
A	D-07	09-20-02	Low meter reading of 159.7 due to thermal coupling shutting off pump.
A	D-45	09-20-02	Low meter reading of 159.9 due to thermal coupling shutting off pump.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-03 Onsite Station 3

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	279	3.0 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4	07-05-02	287	2.9 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4
01-11-02	291	4.0 ± 0.4 ; 0.8	-	07-12-02	279	2.0 ± 0.4 ; 0.5	-
01-18-02	285	3.1 ± 0.4 ; 0.7	0.2 ± 0.4 ; 0.4	07-19-02	289	3.4 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
01-25-02	283	3.4 ± 0.4 ; 0.7	-	07-26-02	285	2.6 ± 0.3 ; 0.6	-
02-01-02	286	2.8 ± 0.4 ; 0.6	-0.2 ± 0.5 ; 0.5	08-02-02	282	3.0 ± 0.4 ; 0.6	-0.3 ± 0.4 ; 0.4
02-08-02	284	4.5 ± 0.4 ; 0.9	-	08-12-02	411[b]	2.7 ± 0.3 ; 0.6	-
02-15-02	285	2.7 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	08-16-02	166	1.9 ± 0.4 ; 0.6	0.1 ± 0.4 ; 0.4
02-22-02	285	1.8 ± 0.3 ; 0.5	-	08-23-02	271	2.0 ± 0.4 ; 0.5	-
03-01-02	288	2.4 ± 0.4 ; 0.6	-0.6 ± 0.5 ; 0.5	08-30-02	286	2.5 ± 0.3 ; 0.6	-0.2 ± 0.3 ; 0.3
03-08-02	283	3.2 ± 0.4 ; 0.7	-	09-06-02	285	2.6 ± 0.3 ; 0.6	-
03-15-02	284	3.4 ± 0.4 ; 0.7	-0.2 ± 0.6 ; 0.6	09-13-02	286	4.5 ± 0.5 ; 0.9	0.4 ± 0.3 ; 0.3
03-22-02	283	2.3 ± 0.4 ; 0.5	-	09-20-02	282	3.2 ± 0.4 ; 0.7	-
03-29-02	290	2.9 ± 0.4 ; 0.7	-1.0 ± 0.4 ; 0.5	09-27-02	289	2.1 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		3.0 ± 0.7	-0.2 ± 0.5	3rd Qtr. Mean±s.d.		2.7 ± 0.7	0.0 ± 0.2
04-05-02	280	1.9 ± 0.3 ; 0.5	-	10-04-02	290	4.0 ± 0.4 ; 0.8	-
04-12-02	286	2.8 ± 0.3 ; 0.6	0.2 ± 0.4 ; 0.4	10-11-02	277	2.9 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
04-19-02	284	2.2 ± 0.3 ; 0.5	-	10-18-02	286	2.6 ± 0.4 ; 0.6	-
04-26-02	283	2.3 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5	10-25-02	284	2.4 ± 0.3 ; 0.5	-0.2 ± 0.3 ; 0.3
05-03-02	285	1.9 ± 0.3 ; 0.5	-	11-01-02	287	2.6 ± 0.3 ; 0.6	-
05-10-02	287	1.9 ± 0.3 ; 0.5	-0.3 ± 0.4 ; 0.4	11-08-02	283	5.2 ± 0.5 ; 1.1	0.2 ± 0.4 ; 0.4
05-17-02	283	1.8 ± 0.4 ; 0.5	-	11-15-02	287	3.0 ± 0.4 ; 0.7	-
05-23-02	241	1.6 ± 0.3 ; 0.4	-0.5 ± 0.5 ; 0.5	11-22-02	286	1.9 ± 0.4 ; 0.5	-0.1 ± 0.4 ; 0.4
05-31-02	325	1.9 ± 0.3 ; 0.4	-	11-29-02	283	2.2 ± 0.3 ; 0.5	-
06-07-02	291	1.6 ± 0.3 ; 0.4	0.3 ± 0.4 ; 0.4	12-06-02	287	2.3 ± 0.3 ; 0.5	-0.3 ± 0.4 ; 0.4
06-14-02	281	2.0 ± 0.3 ; 0.5	-	12-13-02	283	3.8 ± 0.4 ; 0.8	-
06-21-02	284	2.3 ± 0.4 ; 0.6	-0.9 ± 0.5 ; 0.5	12-20-02	286	4.1 ± 0.5 ; 0.9	0.0 ± 0.4 ; 0.4
06-28-02	283	3.0 ± 0.4 ; 0.7	-	12-27-02	289	2.0 ± 0.4 ; 0.5	-
2nd Qtr. Mean±s.d.		2.1 ± 0.4	-0.2 ± 0.5	4th Qtr. Mean±s.d.		3.0 ± 1.0	-0.0 ± 0.2

[a] Volume based on a two week collection period.

[b] Backup collector denied access on 08-09-02; sample collected next business day.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-02 Onsite Station 2

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	280	3.3 ± 0.4 ; 0.7	-0.1 ± 0.5 ; 0.5	07-05-02	287	2.9 ± 0.3 ; 0.6	-0.1 ± 0.4 ; 0.4
01-11-02	286	4.1 ± 0.4 ; 0.8	-	07-12-02	280	2.1 ± 0.4 ; 0.5	-
01-18-02	286	2.7 ± 0.3 ; 0.6	-0.1 ± 0.4 ; 0.4	07-19-02	290	3.1 ± 0.4 ; 0.7	0.5 ± 0.4 ; 0.4
01-25-02	276	3.5 ± 0.4 ; 0.7	-	07-26-02	287	2.3 ± 0.3 ; 0.5	-
02-01-02	287	2.3 ± 0.3 ; 0.5	0.5 ± 0.4 ; 0.4	08-02-02	281	3.0 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5
02-08-02	284	4.2 ± 0.4 ; 0.9	-	08-12-02	418[b]	2.6 ± 0.3 ; 0.6	-
02-15-02	285	2.7 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5	08-19-02	273[b]	1.3 ± 0.3 ; 0.4	-0.1 ± 0.3 ; 0.3
02-22-02	285	1.8 ± 0.3 ; 0.5	-	08-23-02	165	2.2 ± 0.5 ; 0.7	-
03-01-02	287	2.3 ± 0.4 ; 0.5	0.1 ± 0.4 ; 0.4	08-30-02	286	2.0 ± 0.3 ; 0.5	-0.1 ± 0.5 ; 0.5
03-08-02	285	3.5 ± 0.4 ; 0.8	-	09-06-02	286	2.7 ± 0.3 ; 0.6	-
03-15-02	284	2.7 ± 0.4 ; 0.6	0.4 ± 0.4 ; 0.4	09-13-02	287	3.8 ± 0.4 ; 0.8	0.9 ± 0.4 ; 0.4
03-22-02	283	2.4 ± 0.4 ; 0.6	-	09-20-02	282	2.9 ± 0.4 ; 0.7	-
03-29-02	290	2.7 ± 0.4 ; 0.6	-0.1 ± 0.4 ; 0.4	09-27-02	289	2.1 ± 0.3 ; 0.5	0.1 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		2.9 ± 0.7	0.1 ± 0.3	3rd Qtr. Mean±s.d.		2.5 ± 0.6	0.2 ± 0.4
04-05-02	279	2.1 ± 0.4 ; 0.5	-	10-04-02	286	3.9 ± 0.4 ; 0.8	-
04-12-02	286	2.4 ± 0.3 ; 0.5	0.4 ± 0.4 ; 0.4	10-11-02	282	2.9 ± 0.4 ; 0.7	-0.2 ± 0.4 ; 0.4
04-19-02	285	2.4 ± 0.3 ; 0.5	-	10-18-02	285	2.4 ± 0.4 ; 0.6	-
04-26-02	285	1.7 ± 0.3 ; 0.5	0.2 ± 0.5 ; 0.5	10-25-02	285	2.2 ± 0.3 ; 0.5	-0.1 ± 0.3 ; 0.3
05-03-02	283	1.7 ± 0.3 ; 0.4	-	11-01-02	285	3.2 ± 0.4 ; 0.7	-
05-10-02	287	1.9 ± 0.3 ; 0.5	-0.4 ± 0.4 ; 0.4	11-08-02	284	4.8 ± 0.5 ; 1.0	0.3 ± 0.4 ; 0.4
05-17-02	285	1.5 ± 0.3 ; 0.4	-	11-15-02	287	3.1 ± 0.4 ; 0.7	-
05-23-02	244	1.5 ± 0.3 ; 0.4	0.2 ± 0.4 ; 0.4	11-22-02	286	2.1 ± 0.4 ; 0.5	0.0 ± 0.3 ; 0.3
05-31-02	325	2.0 ± 0.3 ; 0.5	-	11-29-02	283	2.1 ± 0.3 ; 0.5	-
06-07-02	288	1.8 ± 0.3 ; 0.5	0.5 ± 0.4 ; 0.4	12-06-02	287	2.3 ± 0.3 ; 0.5	0.1 ± 0.3 ; 0.3
06-14-02	283	1.7 ± 0.3 ; 0.4	-	12-13-02	283	3.6 ± 0.4 ; 0.8	-
06-21-02	284	2.6 ± 0.4 ; 0.6	-0.2 ± 0.4 ; 0.4	12-20-02	281	4.2 ± 0.5 ; 0.9	-0.3 ± 0.4 ; 0.4
06-28-02	283	2.4 ± 0.4 ; 0.6	-	12-27-02	289	2.0 ± 0.4 ; 0.5	-
2nd Qtr. Mean±s.d.		2.0 ± 0.4	0.1 ± 0.3	4th Qtr. Mean±s.d.		3.0 ± 0.9	-0.0 ± 0.2

[a] Volume based on a two week collection period.

[b] Backup collector denied onsite access on scheduled collection day; sample collected next business day.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-03 Onsite Station 3

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	279	3.0 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4	07-05-02	287	2.9 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4
01-11-02	291	4.0 ± 0.4 ; 0.8	-	07-12-02	279	2.0 ± 0.4 ; 0.5	-
01-18-02	285	3.1 ± 0.4 ; 0.7	0.2 ± 0.4 ; 0.4	07-19-02	289	3.4 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
01-25-02	283	3.4 ± 0.4 ; 0.7	-	07-26-02	285	2.6 ± 0.3 ; 0.6	-
02-01-02	286	2.8 ± 0.4 ; 0.6	-0.2 ± 0.5 ; 0.5	08-02-02	282	3.0 ± 0.4 ; 0.6	-0.3 ± 0.4 ; 0.4
02-08-02	284	4.5 ± 0.4 ; 0.9	-	08-12-02	411[b]	2.7 ± 0.3 ; 0.6	-
02-15-02	285	2.7 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	08-16-02	166	1.9 ± 0.4 ; 0.6	0.1 ± 0.4 ; 0.4
02-22-02	285	1.8 ± 0.3 ; 0.5	-	08-23-02	271	2.0 ± 0.4 ; 0.5	-
03-01-02	288	2.4 ± 0.4 ; 0.6	-0.6 ± 0.5 ; 0.5	08-30-02	286	2.5 ± 0.3 ; 0.6	-0.2 ± 0.3 ; 0.3
03-08-02	283	3.2 ± 0.4 ; 0.7	-	09-06-02	285	2.6 ± 0.3 ; 0.6	-
03-15-02	284	3.4 ± 0.4 ; 0.7	-0.2 ± 0.6 ; 0.6	09-13-02	286	4.5 ± 0.5 ; 0.9	0.4 ± 0.3 ; 0.3
03-22-02	283	2.3 ± 0.4 ; 0.5	-	09-20-02	282	3.2 ± 0.4 ; 0.7	-
03-29-02	290	2.9 ± 0.4 ; 0.7	-1.0 ± 0.4 ; 0.5	09-27-02	289	2.1 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4
1st Qtr. Mean±s.d.		3.0 ± 0.7	-0.2 ± 0.5	3rd Qtr. Mean±s.d.		2.7 ± 0.7	0.0 ± 0.2
04-05-02	280	1.9 ± 0.3 ; 0.5	-	10-04-02	290	4.0 ± 0.4 ; 0.8	-
04-12-02	286	2.8 ± 0.3 ; 0.6	0.2 ± 0.4 ; 0.4	10-11-02	277	2.9 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
04-19-02	284	2.2 ± 0.3 ; 0.5	-	10-18-02	286	2.6 ± 0.4 ; 0.6	-
04-26-02	283	2.3 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5	10-25-02	284	2.4 ± 0.3 ; 0.5	-0.2 ± 0.3 ; 0.3
05-03-02	285	1.9 ± 0.3 ; 0.5	-	11-01-02	287	2.6 ± 0.3 ; 0.6	-
05-10-02	287	1.9 ± 0.3 ; 0.5	-0.3 ± 0.4 ; 0.4	11-08-02	283	5.2 ± 0.5 ; 1.1	0.2 ± 0.4 ; 0.4
05-17-02	283	1.8 ± 0.4 ; 0.5	-	11-15-02	287	3.0 ± 0.4 ; 0.7	-
05-23-02	241	1.6 ± 0.3 ; 0.4	-0.5 ± 0.5 ; 0.5	11-22-02	286	1.9 ± 0.4 ; 0.5	-0.1 ± 0.4 ; 0.4
05-31-02	325	1.9 ± 0.3 ; 0.4	-	11-29-02	283	2.2 ± 0.3 ; 0.5	-
06-07-02	291	1.6 ± 0.3 ; 0.4	0.3 ± 0.4 ; 0.4	12-06-02	287	2.3 ± 0.3 ; 0.5	-0.3 ± 0.4 ; 0.4
06-14-02	281	2.0 ± 0.3 ; 0.5	-	12-13-02	283	3.8 ± 0.4 ; 0.8	-
06-21-02	284	2.3 ± 0.4 ; 0.6	-0.9 ± 0.5 ; 0.5	12-20-02	286	4.1 ± 0.5 ; 0.9	0.0 ± 0.4 ; 0.4
06-28-02	283	3.0 ± 0.4 ; 0.7	-	12-27-02	289	2.0 ± 0.4 ; 0.5	-
2nd Qtr. Mean±s.d.		2.1 ± 0.4	-0.2 ± 0.5	4th Qtr. Mean±s.d.		3.0 ± 1.0	-0.0 ± 0.2

[a] Volume based on a two week collection period.

[b] Backup collector denied access on 08-09-02; sample collected next business day.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-12 (C) Lisbon

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	278	3.1 ± 0.4 ; 0.7	-0.1 ± 0.5 ; 0.5	07-05-02	250[e]	3.2 ± 0.4 ; 0.7	0.2 ± 0.6 ; 0.6
01-11-02	285	3.8 ± 0.4 ; 0.8	-	07-12-02	278	2.3 ± 0.4 ; 0.6	-
01-18-02	287	2.8 ± 0.3 ; 0.6	0.5 ± 0.4 ; 0.4	07-19-02	288	0.4 ± 0.3 ; 0.3	0.2 ± 0.4 ; 0.4
01-25-02	283	3.9 ± 0.4 ; 0.8	-	07-26-02	285	4.3 ± 0.4 ; 0.9	-
02-01-02	286	2.6 ± 0.4 ; 0.6	0.0 ± 0.4 ; 0.4	08-02-02	284	2.4 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
02-08-02	285	4.7 ± 0.4 ; 0.9	-	08-09-02	299	1.9 ± 0.4 ; 0.5	-
02-15-02	284	2.3 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	08-16-02	287	2.5 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4
02-22-02	285	1.6 ± 0.3 ; 0.4	-	08-23-02	265	2.1 ± 0.4 ; 0.5	-
03-01-02	272[b]	2.2 ± 0.4 ; 0.5	0.6 ± 0.5 ; 0.5	08-30-02	285	2.7 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4
03-08-02	283	3.2 ± 0.4 ; 0.7	-	09-06-02	287	2.9 ± 0.3 ; 0.6	-
03-15-02	197[c]	3.1 ± 0.5 ; 0.7	0.4 ± 0.5 ; 0.5	09-13-02	282	5.0 ± 0.5 ; 1.0	0.0 ± 0.4 ; 0.4
03-22-02	283	2.6 ± 0.4 ; 0.6	-	09-20-02	285	3.3 ± 0.4 ; 0.7	-
03-29-02	283	2.9 ± 0.4 ; 0.7	-0.4 ± 0.5 ; 0.5	09-27-02	290	2.3 ± 0.3 ; 0.5	0.4 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		3.0 ± 0.8	0.2 ± 0.4	3rd Qtr. Mean±s.d.		2.7 ± 1.1	0.1 ± 0.2
04-05-02	282	2.0 ± 0.3 ; 0.5	-	10-04-02	280	3.9 ± 0.4 ; 0.8	-
04-12-02	285	2.2 ± 0.3 ; 0.5	0.4 ± 0.4 ; 0.4	10-11-02	285	2.8 ± 0.4 ; 0.7	-0.3 ± 0.3 ; 0.4
04-19-02	285	1.8 ± 0.3 ; 0.4	-	10-18-02	285	2.8 ± 0.4 ; 0.7	-
04-26-02	283	1.8 ± 0.3 ; 0.5	-0.4 ± 0.5 ; 0.5	10-25-02	286	2.5 ± 0.3 ; 0.6	0.0 ± 0.4 ; 0.4
05-03-02	285	1.9 ± 0.3 ; 0.5	-	11-01-02	287	2.7 ± 0.3 ; 0.6	-
05-10-02	285	1.7 ± 0.3 ; 0.4	0.1 ± 0.4 ; 0.4	11-08-02	283	6.3 ± 0.5 ; 1.2	0.1 ± 0.4 ; 0.4
05-17-02	285	1.6 ± 0.3 ; 0.5	-	11-15-02	285	3.4 ± 0.4 ; 0.7	-
05-23-02	245	1.2 ± 0.3 ; 0.4	0.7 ± 0.4 ; 0.4	11-22-02	288	2.1 ± 0.4 ; 0.5	-0.1 ± 0.3 ; 0.3
05-31-02	320	1.7 ± 0.3 ; 0.4	-	11-29-02	282	2.3 ± 0.3 ; 0.5	-
06-07-02	297	1.9 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	12-06-02	288	2.2 ± 0.3 ; 0.5	-0.2 ± 0.4 ; 0.4
06-14-02	284	1.9 ± 0.3 ; 0.5	-	12-13-02	282	4.1 ± 0.4 ; 0.8	-
06-21-02	284	2.4 ± 0.4 ; 0.6	-0.3 ± 0.4 ; 0.4	12-20-02	284	3.0 ± 0.4 ; 0.7	-0.1 ± 0.3 ; 0.3
06-28-02	176[d]	3.6 ± 0.6 ; 0.9	-	12-27-02	288	2.3 ± 0.4 ; 0.6	-
2nd Qtr. Mean±s.d.		2.0 ± 0.6	0.1 ± 0.4	4th Qtr. Mean±s.d.		3.1 ± 1.1	-0.1 ± 0.1

[a] Volume based on a two week collection period.
[b] Volume low; no apparent reason for low meter reading of 160.6 hrs.
[c] Volume low; low meter reading of 116.1 hrs. possibly due to storms in area.
[d] Volume low; low meter reading of 103.7 hrs. possibly due to power outage.
[e] Volume low, possibly due to thermal coupling shutting off pump.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-07 Clay Products

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	279	3.4 ± 0.4 ; 0.7	-0.2 ± 0.5 ; 0.5	07-05-02	233[c]	2.8 ± 0.4 ; 0.6	0.5 ± 0.4 ; 0.4
01-11-02	280	4.2 ± 0.4 ; 0.9	-	07-12-02	280	2.1 ± 0.4 ; 0.5	-
01-18-02	287	2.3 ± 0.3 ; 0.5	0.8 ± 0.4 ; 0.4	07-19-02	259[c]	3.2 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
01-25-02	283	3.5 ± 0.4 ; 0.7	-	07-26-02	265[c]	2.4 ± 0.3 ; 0.6	-
02-01-02	286	2.2 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	08-02-02	262[c]	2.9 ± 0.4 ; 0.6	0.5 ± 0.5 ; 0.5
02-08-02	284	4.6 ± 0.4 ; 0.9	-	08-09-02	287	1.9 ± 0.4 ; 0.5	-
02-15-02	280	2.5 ± 0.4 ; 0.6	-0.5 ± 0.5 ; 0.5	08-16-02	284	2.4 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
02-22-02	285	1.6 ± 0.3 ; 0.4	-	08-23-02	269	1.7 ± 0.3 ; 0.5	-
03-01-02	288	2.2 ± 0.3 ; 0.5	0.3 ± 0.4 ; 0.4	08-30-02	278	2.1 ± 0.3 ; 0.5	0.1 ± 0.3 ; 0.3
03-08-02	283	3.2 ± 0.4 ; 0.7	-	09-06-02	276[c]	2.7 ± 0.3 ; 0.6	-
03-15-02	285	2.9 ± 0.4 ; 0.6	-0.2 ± 0.4 ; 0.4	09-13-02	268[c]	4.2 ± 0.5 ; 0.9	0.3 ± 0.4 ; 0.4
03-22-02	283	2.0 ± 0.4 ; 0.5	-	09-20-02	266[c]	2.7 ± 0.4 ; 0.6	-
03-29-02	280	2.6 ± 0.4 ; 0.6	-0.1 ± 0.5 ; 0.5	09-27-02	283	2.3 ± 0.3 ; 0.5	-0.1 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		2.8 ± 0.9	0.0 ± 0.4	3rd Qtr. Mean±s.d.		2.6 ± 0.6	0.2 ± 0.2
04-05-02	280	2.1 ± 0.4 ; 0.5	-	10-04-02	282	3.9 ± 0.4 ; 0.8	-
04-12-02	285	2.5 ± 0.3 ; 0.6	-0.5 ± 0.5 ; 0.5	10-11-02	282	2.4 ± 0.4 ; 0.6	-0.1 ± 0.4 ; 0.4
04-19-02	280	2.5 ± 0.3 ; 0.6	-	10-18-02	283	2.5 ± 0.4 ; 0.6	-
04-26-02	283	2.0 ± 0.4 ; 0.5	-0.5 ± 0.5 ; 0.5	10-25-02	285	2.4 ± 0.3 ; 0.5	-0.2 ± 0.4 ; 0.4
05-03-02	285	1.8 ± 0.3 ; 0.5	-	11-01-02	287	2.8 ± 0.3 ; 0.6	-
05-10-02	286	1.7 ± 0.3 ; 0.4	-0.1 ± 0.5 ; 0.5	11-08-02	283	5.4 ± 0.5 ; 1.1	-0.3 ± 0.4 ; 0.4
05-17-02	284	1.8 ± 0.4 ; 0.5	-	11-15-02	285	2.5 ± 0.4 ; 0.6	-
05-23-02	246	1.3 ± 0.3 ; 0.4	-0.5 ± 0.4 ; 0.4	11-22-02	288	1.9 ± 0.4 ; 0.5	-1.0 ± 0.4 ; 0.4
05-31-02	319	1.7 ± 0.3 ; 0.4	-	11-29-02	282	2.0 ± 0.3 ; 0.5	-
06-07-02	270[b]	1.8 ± 0.4 ; 0.5	0.4 ± 0.4 ; 0.4	12-06-02	288	2.3 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4
06-14-02	281	1.7 ± 0.3 ; 0.4	-	12-13-02	277	4.0 ± 0.4 ; 0.8	-
06-21-02	275	2.6 ± 0.4 ; 0.6	0.2 ± 0.4 ; 0.4	12-20-02	284	4.2 ± 0.5 ; 0.9	0.1 ± 0.3 ; 0.3
06-28-02	261[c]	2.7 ± 0.4 ; 0.6	-	12-27-02	288	2.5 ± 0.4 ; 0.6	-
2nd Qtr. Mean±s.d.		2.0 ± 0.4	-0.2 ± 0.4	4th Qtr. Mean±s.d.		3.0 ± 1.1	-0.2 ± 0.4

[a] Volume based on a two week collection period.
[b] Volume low; no apparent reason for low reading of 159.2 hrs.
[c] Volume low, possibly due to thermal coupling shutting off pump.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-12 (C) Lisbon

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	278	3.1 ± 0.4 ; 0.7	-0.1 ± 0.5 ; 0.5	07-05-02	250[e]	3.2 ± 0.4 ; 0.7	0.2 ± 0.6 ; 0.6
01-11-02	285	3.8 ± 0.4 ; 0.8	-	07-12-02	278	2.3 ± 0.4 ; 0.6	-
01-18-02	287	2.8 ± 0.3 ; 0.6	0.5 ± 0.4 ; 0.4	07-19-02	288	0.4 ± 0.3 ; 0.3	0.2 ± 0.4 ; 0.4
01-25-02	283	3.9 ± 0.4 ; 0.8	-	07-26-02	285	4.3 ± 0.4 ; 0.9	-
02-01-02	286	2.6 ± 0.4 ; 0.6	0.0 ± 0.4 ; 0.4	08-02-02	284	2.4 ± 0.3 ; 0.5	-0.1 ± 0.4 ; 0.4
02-08-02	285	4.7 ± 0.4 ; 0.9	-	08-09-02	299	1.9 ± 0.4 ; 0.5	-
02-15-02	284	2.3 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	08-16-02	287	2.5 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4
02-22-02	285	1.6 ± 0.3 ; 0.4	-	08-23-02	265	2.1 ± 0.4 ; 0.5	-
03-01-02	272[b]	2.2 ± 0.4 ; 0.5	0.6 ± 0.5 ; 0.5	08-30-02	285	2.7 ± 0.3 ; 0.6	-0.3 ± 0.4 ; 0.4
03-08-02	283	3.2 ± 0.4 ; 0.7	-	09-06-02	287	2.9 ± 0.3 ; 0.6	-
03-15-02	197[c]	3.1 ± 0.5 ; 0.7	0.4 ± 0.5 ; 0.5	09-13-02	282	5.0 ± 0.5 ; 1.0	0.0 ± 0.4 ; 0.4
03-22-02	283	2.6 ± 0.4 ; 0.6	-	09-20-02	285	3.3 ± 0.4 ; 0.7	-
03-29-02	283	2.9 ± 0.4 ; 0.7	-0.4 ± 0.5 ; 0.5	09-27-02	290	2.3 ± 0.3 ; 0.5	0.4 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		3.0 ± 0.8	0.2± 0.4	3rd Qtr. Mean±s.d.		2.7 ± 1.1	0.1± 0.2
04-05-02	282	2.0 ± 0.3 ; 0.5	-	10-04-02	280	3.9 ± 0.4 ; 0.8	-
04-12-02	285	2.2 ± 0.3 ; 0.5	0.4 ± 0.4 ; 0.4	10-11-02	285	2.8 ± 0.4 ; 0.7	-0.3 ± 0.3 ; 0.4
04-19-02	285	1.8 ± 0.3 ; 0.4	-	10-18-02	285	2.8 ± 0.4 ; 0.7	-
04-26-02	283	1.8 ± 0.3 ; 0.5	-0.4 ± 0.5 ; 0.5	10-25-02	286	2.5 ± 0.3 ; 0.6	0.0 ± 0.4 ; 0.4
05-03-02	285	1.9 ± 0.3 ; 0.5	-	11-01-02	287	2.7 ± 0.3 ; 0.6	-
05-10-02	285	1.7 ± 0.3 ; 0.4	0.1 ± 0.4 ; 0.4	11-08-02	283	6.3 ± 0.5 ; 1.2	0.1 ± 0.4 ; 0.4
05-17-02	285	1.6 ± 0.3 ; 0.5	-	11-15-02	285	3.4 ± 0.4 ; 0.7	-
05-23-02	245	1.2 ± 0.3 ; 0.4	0.7 ± 0.4 ; 0.4	11-22-02	288	2.1 ± 0.4 ; 0.5	-0.1 ± 0.3 ; 0.3
05-31-02	320	1.7 ± 0.3 ; 0.4	-	11-29-02	282	2.3 ± 0.3 ; 0.5	-
06-07-02	297	1.9 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4	12-06-02	288	2.2 ± 0.3 ; 0.5	-0.2 ± 0.4 ; 0.4
06-14-02	284	1.9 ± 0.3 ; 0.5	-	12-13-02	282	4.1 ± 0.4 ; 0.8	-
06-21-02	284	2.4 ± 0.4 ; 0.6	-0.3 ± 0.4 ; 0.4	12-20-02	284	3.0 ± 0.4 ; 0.7	-0.1 ± 0.3 ; 0.3
06-28-02	176[d]	3.6 ± 0.6 ; 0.9	-	12-27-02	288	2.3 ± 0.4 ; 0.6	-
2nd Qtr. Mean±s.d.		2.0 ± 0.6	0.1± 0.4	4th Qtr. Mean±s.d.		3.1 ± 1.1	-0.1± 0.1

[a] Volume based on a two week collection period.
[b] Volume low; no apparent reason for low meter reading of 160.6 hrs.
[c] Volume low; low meter reading of 116.1 hrs. possibly due to storms in area.
[d] Volume low; low meter reading of 103.7 hrs. possibly due to power outage.
[e] Volume low, possibly due to thermal coupling shutting off pump.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-45 McKinley Woods Road

Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	282	3.2 ± 0.4 ; 0.7	0.7 ± 0.4 ; 0.4
01-11-02	285	4.1 ± 0.4 ; 0.8	-
01-18-02	287	2.8 ± 0.3 ; 0.6	0.1 ± 0.4 ; 0.4
01-25-02	283	3.4 ± 0.4 ; 0.7	-
02-01-02	285	2.2 ± 0.3 ; 0.5	0.1 ± 0.4 ; 0.4
02-08-02	285	4.3 ± 0.4 ; 0.9	-
02-15-02	284	2.8 ± 0.4 ; 0.6	-0.4 ± 0.4 ; 0.4
02-22-02	285	1.9 ± 0.3 ; 0.5	-
03-01-02	288	2.2 ± 0.4 ; 0.5	-0.3 ± 0.3 ; 0.4
03-08-02	273	3.4 ± 0.4 ; 0.8	-
03-15-02	286	3.0 ± 0.4 ; 0.7	0.1 ± 0.3 ; 0.3
03-22-02	283	2.9 ± 0.4 ; 0.7	-
03-29-02	288	2.8 ± 0.4 ; 0.6	-0.0 ± 0.5 ; 0.5
1st Qtr. Mean±s.d.		3.0 ± 0.7	0.0± 0.3
04-05-02	282	2.0 ± 0.3 ; 0.5	-
04-12-02	285	2.5 ± 0.3 ; 0.6	0.4 ± 0.3 ; 0.3
04-19-02	278	2.4 ± 0.3 ; 0.6	-
04-26-02	283	1.9 ± 0.4 ; 0.5	0.2 ± 0.4 ; 0.4
05-03-02	280	2.1 ± 0.4 ; 0.5	-
05-10-02	286	1.9 ± 0.3 ; 0.5	-0.1 ± 0.5 ; 0.5
05-17-02	285	2.0 ± 0.4 ; 0.5	-
05-23-02	244	1.6 ± 0.3 ; 0.4	-0.3 ± 0.4 ; 0.4
05-31-02	315	1.5 ± 0.3 ; 0.4	-
06-07-02	288	1.6 ± 0.3 ; 0.4	0.1 ± 0.4 ; 0.4
06-14-02	284	1.7 ± 0.3 ; 0.4	-
06-21-02	283	2.5 ± 0.4 ; 0.6	0.4 ± 0.4 ; 0.4
06-28-02	297	2.9 ± 0.4 ; 0.6	-
2nd Qtr. Mean±s.d.		2.1 ± 0.4	0.1± 0.3
07-05-02	259[b]	3.0 ± 0.4 ; 0.7	-0.1 ± 0.5 ; 0.5
07-12-02	266[b]	1.9 ± 0.4 ; 0.5	-
07-19-02	175[b]	4.7 ± 0.7 ; 1.1	0.1 ± 0.6 ; 0.6
07-26-02	280	2.3 ± 0.3 ; 0.5	-
08-02-02	284	2.8 ± 0.3 ; 0.6	0.4 ± 0.4 ; 0.4
08-09-02	299	1.6 ± 0.3 ; 0.5	-
08-16-02	275[b]	2.7 ± 0.3 ; 0.6	-0.4 ± 0.3 ; 0.3
08-23-02	253	2.0 ± 0.4 ; 0.5	-
08-30-02	279	2.6 ± 0.3 ; 0.6	0.5 ± 0.4 ; 0.4
09-06-02	272[b]	3.0 ± 0.4 ; 0.7	-
09-13-02	261[b]	4.1 ± 0.5 ; 0.9	0.4 ± 0.4 ; 0.4
09-20-02	271[b]	3.0 ± 0.4 ; 0.7	-
09-27-02	285	2.1 ± 0.3 ; 0.5	0.0 ± 0.3 ; 0.3
3rd Qtr. Mean±s.d.		2.8 ± 0.9	0.1± 0.3
10-04-02	279	3.9 ± 0.4 ; 0.8	-
10-11-02	285	2.9 ± 0.4 ; 0.7	0.0 ± 0.4 ; 0.4
10-18-02	285	2.6 ± 0.4 ; 0.6	-
10-25-02	287	2.2 ± 0.3 ; 0.5	0.0 ± 0.3 ; 0.3
11-01-02	287	2.8 ± 0.3 ; 0.6	-
11-08-02	283	6.2 ± 0.5 ; 1.2	-0.1 ± 0.3 ; 0.3
11-15-02	285	3.3 ± 0.4 ; 0.7	-
11-22-02	283	0.4 ± 0.3 ; 0.3	0.0 ± 0.3 ; 0.3
11-29-02	NS[c]	-	-
12-06-02	288	2.2 ± 0.3 ; 0.5	-0.2 ± 0.3 ; 0.3
12-13-02	282	3.7 ± 0.4 ; 0.8	-
12-20-02	284	4.2 ± 0.5 ; 0.9	-0.7 ± 0.3 ; 0.4
12-27-02	293	1.8 ± 0.4 ; 0.5	-
4th Qtr. Mean±s.d.		3.0 ± 1.4	-0.2± 0.3

[a] Volume based on a two week collection period.
[b] Volume low, possibly due to thermal coupling shutting off pump.
[c] Pump running but cycling on and off; timer read zero. Filter very light; not viable sample; collector replaced pump.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Airborne Particulates - Continuous; weekly exchange
Iodine cartridges - Continuous; biweekly exchange

Required LLD: Gross Beta = 0.01, I-131 = 0.07 pCi/m³

Units: 10^{-2} pCi/m³

D-53 Grundy County Road

Date Collected	Volume (m³)	Gross Beta	I-131[a]	Date Collected	Volume (m³)	Gross Beta	I-131[a]
01-04-02	278	3.3 ± 0.4 ; 0.7	0.3 ± 0.4 ; 0.4	07-05-02	280	3.1 ± 0.4 ; 0.7	0.1 ± 0.4 ; 0.4
01-11-02	287	4.6 ± 0.4 ; 0.9	-	07-12-02	269[c]	2.3 ± 0.4 ; 0.6	-
01-18-02	284	3.3 ± 0.4 ; 0.7	0.4 ± 0.3 ; 0.4	07-19-02	283	3.2 ± 0.4 ; 0.7	-0.1 ± 0.4 ; 0.4
01-25-02	282	3.5 ± 0.4 ; 0.7	-	07-26-02	290	2.3 ± 0.3 ; 0.5	-
02-01-02	288	2.6 ± 0.4 ; 0.6	0.1 ± 0.5 ; 0.5	08-02-02	285	3.1 ± 0.4 ; 0.7	0.3 ± 0.4 ; 0.4
02-08-02	284	4.8 ± 0.4 ; 1.0	-	08-09-02	285	2.2 ± 0.4 ; 0.6	-
02-15-02	284	2.7 ± 0.4 ; 0.6	0.3 ± 0.5 ; 0.5	08-16-02	285	2.5 ± 0.3 ; 0.6	-0.1 ± 0.4 ; 0.4
02-22-02	286	1.6 ± 0.3 ; 0.4	-	08-23-02	274	2.0 ± 0.4 ; 0.5	-
03-01-02	290	2.4 ± 0.4 ; 0.6	0.0 ± 0.5 ; 0.5	08-30-02	285	4.5 ± 0.4 ; 0.9	-0.1 ± 0.5 ; 0.5
03-08-02	283	3.7 ± 0.4 ; 0.8	-	09-06-02	NS[d]	-	-
03-15-02	284	3.2 ± 0.4 ; 0.7	-0.8 ± 0.4 ; 0.4	09-13-02	261[e]	4.3 ± 0.5 ; 0.9	0.6 ± 0.7 ; 0.7
03-22-02	284	2.6 ± 0.4 ; 0.6	-	09-20-02	280	2.4 ± 0.4 ; 0.6	-
03-29-02	292	2.8 ± 0.4 ; 0.6	0.4 ± 0.4 ; 0.4	09-27-02	293	2.1 ± 0.3 ; 0.5	-0.3 ± 0.3 ; 0.3
1st Qtr. Mean±s.d.		3.2 ± 0.9	0.1 ± 0.4	3rd Qtr. Mean±s.d.		2.8 ± 0.8	0.1 ± 0.3
04-05-02	276	2.0 ± 0.4 ; 0.5	-	10-04-02	286	3.5 ± 0.4 ; 0.7	-
04-12-02	288	2.5 ± 0.3 ; 0.6	0.3 ± 0.4 ; 0.4	10-11-02	281	2.5 ± 0.4 ; 0.6	0.1 ± 0.3 ; 0.3
04-19-02	283	2.7 ± 0.3 ; 0.6	-	10-18-02	283	2.5 ± 0.4 ; 0.6	-
04-26-02	284	1.7 ± 0.3 ; 0.5	0.3 ± 0.5 ; 0.5	10-25-02	284	2.1 ± 0.3 ; 0.5	0.1 ± 0.3 ; 0.3
05-03-02	283	1.8 ± 0.3 ; 0.5	-	11-01-02	285	2.5 ± 0.3 ; 0.5	-
05-10-02	261[b]	2.1 ± 0.3 ; 0.5	0.2 ± 0.4 ; 0.4	11-08-02	285	4.4 ± 0.5 ; 0.9	-0.1 ± 0.3 ; 0.3
05-17-02	283	2.0 ± 0.4 ; 0.5	-	11-15-02	285	2.9 ± 0.4 ; 0.7	-
05-23-02	244	1.5 ± 0.3 ; 0.4	0.2 ± 0.5 ; 0.5	11-22-02	287	2.2 ± 0.4 ; 0.5	-0.4 ± 0.4 ; 0.4
05-31-02	325	2.1 ± 0.3 ; 0.5	-	11-29-02	283	1.9 ± 0.3 ; 0.5	-
06-07-02	289	1.5 ± 0.3 ; 0.4	-0.5 ± 0.4 ; 0.4	12-06-02	288	2.2 ± 0.3 ; 0.5	0.0 ± 0.4 ; 0.4
06-14-02	283	1.6 ± 0.3 ; 0.4	-	12-13-02	283	3.6 ± 0.4 ; 0.8	-
06-21-02	284	2.0 ± 0.4 ;	-0.6 ± 0.5 ; 0.5	12-20-02	285	4.3 ± 0.5 ; 0.9	0.4 ± 0.3 ; 0.3
06-28-02	259[c]	2.5 ± 0.4 ; 0.6	-	12-27-02	291	2.3 ± 0.4 ; 0.6	-
2nd Qtr. Mean±s.d.		2.0 ± 0.4	-0.0 ± 0.4	4th Qtr. Mean±s.d.		2.8 ± 0.8	0.0 ± 0.3

[a] Volume based on a two week collection period.
[b] Volume low; no apparent reason for low timer reading of 153.8 hrs.
[c] Volume low, possibly due to thermal coupling shutting off pump.
[d] "NS" = No sample; pump found running but not pumping; not enough particulate for viable sample. Collector replaced pump.
[e] Pump found not running with low meter reading of 7.6 hrs. Filter appeared "normal" and, after analysis, sample counts were consistent with other locations at Dresden Station; used estimated volume for calculation. Timer may have been incorrect; collector replaced pump.

DRESDEN

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections
ODCM-
Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³
Other LLDs: Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

D-01 Onsite Station 1

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2780	CDAP-4991	CDAP-7209	CDAP-8905
Volume	3,717	3,702	3,731	3,717
Mn-54	-1.1 ± 8.0 ; 8.0	4.5 ± 5.5 ; 5.6	3.0 ± 5.6 ; 5.6	-0.9 ± 5.4 ; 5.4
Fe-59	-10.5 ± 10.7 ; 10.9	12.2 ± 9.8 ; 10.1	-4.6 ± 7.2 ; 7.2	-12.0 ± 9.8 ; 10.1
Co-58	-0.3 ± 3.9 ; 3.9	8.6 ± 4.1 ; 4.3	-1.8 ± 6.2 ; 6.2	5.9 ± 5.4 ; 5.5
Co-60	0.4 ± 7.4 ; 7.4	-7.9 ± 10.0 ; 10.1	-2.2 ± 6.5 ; 6.6	1.0 ± 4.5 ; 4.5
Zn-65	1.0 ± 14.2 ; 14.2	6.0 ± 13.0 ; 13.1	-10.4 ± 12.3 ; 12.4	-4.0 ± 10.2 ; 10.2
Zr/Nb-95	1.9 ± 5.6 ; 5.6	12.0 ± 6.0 ; 6.4	5.9 ± 4.9 ; 5.0	2.5 ± 5.0 ; 5.0
Cs-134	0.9 ± 7.4 ; 7.4	3.8 ± 5.7 ; 5.7	3.4 ± 5.9 ; 5.9	2.2 ± 5.7 ; 5.7
Cs-137	5.9 ± 8.2 ; 8.2	-8.5 ± 7.7 ; 7.8	-0.6 ± 5.7 ; 5.7	0.6 ± 5.1 ; 5.1
Ba/La-140	-101.8 ± 8.7 ; 20.1	-63.7 ± 9.1 ; 14.6	15.9 ± 6.1 ; 6.7	-1.6 ± 5.4 ; 5.4

D-02 Onsite Station 2

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2781	CDAP-4992	CDAP-7210	CDAP-8906
Volume	3,705	3,704	3,717	3,709
Mn-54	1.1 ± 8.4 ; 8.4	1.1 ± 5.7 ; 5.7	0.6 ± 6.1 ; 6.1	-4.3 ± 7.3 ; 7.3
Fe-59	-3.0 ± 14.0 ; 14.0	8.3 ± 11.6 ; 11.6	-3.5 ± 9.4 ; 9.4	-3.6 ± 9.4 ; 9.4
Co-58	1.5 ± 5.2 ; 5.2	-1.4 ± 4.6 ; 4.6	7.7 ± 4.6 ; 4.8	-5.7 ± 4.7 ; 4.9
Co-60	-0.6 ± 8.8 ; 8.8	1.6 ± 9.3 ; 9.3	1.2 ± 6.1 ; 6.1	1.3 ± 7.4 ; 7.4
Zn-65	26.3 ± 14.6 ; 15.3	4.0 ± 12.5 ; 12.5	-8.0 ± 11.1 ; 11.2	4.0 ± 12.1 ; 12.1
Zr/Nb-95	-11.9 ± 6.6 ; 6.9	-0.9 ± 5.3 ; 5.3	-12.0 ± 6.3 ; 6.6	-11.6 ± 13.5 ; 13.6
Cs-134	2.7 ± 7.1 ; 7.1	5.4 ± 6.1 ; 6.1	6.4 ± 4.7 ; 4.8	-6.2 ± 6.8 ; 6.9
Cs-137	3.3 ± 7.4 ; 7.4	4.1 ± 7.0 ; 7.0	4.4 ± 5.3 ; 5.4	-6.4 ± 6.6 ; 6.7
Ba/La-140	-54.2 ± 10.2 ; 14.1	-1.5 ± 6.7 ; 6.7	7.3 ± 5.8 ; 5.9	38.7 ± 4.3 ; 8.1

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections
ODCM-
Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³
Other LLDs: Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

D-03 Onsite Station 3

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2782	CDAP-4993	CDAP-7211	CDAP-8907
Volume	3,712	3,700	3,704	3,715
Mn-54	-0.4 ± 6.9 ; 6.9	6.4 ± 5.1 ; 5.2	0.6 ± 5.1 ; 5.1	-2.4 ± 5.7 ; 5.7
Fe-59	10.5 ± 9.3 ; 9.5	2.8 ± 10.2 ; 10.2	-10.5 ± 11.6 ; 11.7	4.8 ± 8.9 ; 8.9
Co-58	0.5 ± 5.0 ; 5.0	-6.8 ± 5.9 ; 6.1	6.8 ± 5.0 ; 5.2	4.3 ± 5.2 ; 5.2
Co-60	2.4 ± 6.1 ; 6.1	0.4 ± 7.4 ; 7.4	-1.3 ± 6.8 ; 6.8	7.9 ± 5.1 ; 5.3
Zn-65	7.1 ± 10.5 ; 10.5	9.0 ± 11.1 ; 11.2	-21.8 ± 16.0 ; 16.5	-6.5 ± 11.5 ; 11.6
Zr/Nb-95	-3.8 ± 4.9 ; 5.0	0.4 ± 5.4 ; 5.4	7.0 ± 5.0 ; 5.1	-8.6 ± 5.7 ; 5.9
Cs-134	6.2 ± 6.2 ; 6.3	1.8 ± 7.6 ; 7.6	6.2 ± 5.8 ; 5.9	-8.2 ± 6.8 ; 7.0
Cs-137	-0.6 ± 6.0 ; 6.0	5.2 ± 4.6 ; 4.7	-1.4 ± 6.8 ; 6.8	-6.1 ± 5.5 ; 5.6
Ba/La-140	10.0 ± 7.2 ; 7.4	16.9 ± 7.7 ; 8.3	-49.9 ± 9.6 ; 13.1	-22.6 ± 6.9 ; 8.0

D-04 Collins Road

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2783	CDAP-4994	CDAP-7212	CDAP-8908
Volume	3,689	3,608	3,538	3,713
Mn-54	-6.2 ± 6.5 ; 6.6	-1.6 ± 6.1 ; 6.1	12.8 ± 6.3 ; 6.7	-3.7 ± 5.4 ; 5.5
Fe-59	7.7 ± 8.8 ; 8.9	8.6 ± 5.6 ; 5.8	-2.5 ± 11.7 ; 11.7	10.8 ± 7.8 ; 8.1
Co-58	-12.8 ± 6.4 ; 6.8	0.5 ± 5.2 ; 5.2	3.5 ± 5.8 ; 5.8	0.3 ± 4.6 ; 4.6
Co-60	-2.9 ± 6.4 ; 6.4	-1.7 ± 8.8 ; 8.8	0.6 ± 5.9 ; 5.9	7.0 ± 4.8 ; 5.0
Zn-65	-4.1 ± 10.2 ; 10.3	-10.3 ± 14.3 ; 14.4	11.8 ± 12.3 ; 12.5	-4.0 ± 10.2 ; 10.2
Zr/Nb-95	4.7 ± 6.5 ; 6.5	-14.0 ± 7.0 ; 7.4	3.7 ± 5.4 ; 5.4	-10.0 ± 6.0 ; 6.3
Cs-134	4.9 ± 3.8 ; 3.9	-5.3 ± 8.6 ; 8.6	-1.2 ± 5.8 ; 5.8	2.6 ± 6.8 ; 6.8
Cs-137	9.2 ± 5.5 ; 5.8	5.2 ± 5.4 ; 5.5	-2.0 ± 6.6 ; 6.6	-4.5 ± 5.8 ; 5.8
Ba/La-140	11.1 ± 7.3 ; 7.5	56.9 ± 6.7 ; 12.1	-50.8 ± 8.2 ; 12.2	17.8 ± 6.1 ; 6.9

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections
ODCM-
Required LLDs: Cs-134 = 0.01, Cs-137 = 0.01 pCi/m³
Other LLDs: Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

D-07 Clay Products

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2784	CDAP-4995	CDAP-7213	CDAP-8909
Volume	3,689	3,642	3,518	3,702
Mn-54	2.3 ± 5.1 ; 5.1	4.2 ± 4.5 ; 4.6	2.6 ± 5.7 ; 5.8	7.7 ± 4.6 ; 4.8
Fe-59	21.2 ± 8.3 ; 9.2	2.8 ± 10.8 ; 10.8	-19.8 ± 12.5 ; 13.0	14.5 ± 6.2 ; 6.7
Co-58	1.5 ± 5.2 ; 5.2	-2.6 ± 5.3 ; 5.3	3.5 ± 5.8 ; 5.8	2.0 ± 4.3 ; 4.3
Co-60	2.4 ± 6.1 ; 6.1	4.7 ± 6.9 ; 6.9	4.8 ± 5.9 ; 6.0	-5.7 ± 5.5 ; 5.6
Zn-65	-12.2 ± 13.5 ; 13.7	-21.3 ± 13.9 ; 14.4	-8.5 ± 11.7 ; 11.8	0.8 ± 11.4 ; 11.4
Zr/Nb-95	-6.5 ± 13.4 ; 13.5	-12.1 ± 6.0 ; 6.4	-7.2 ± 5.3 ; 5.5	1.5 ± 4.5 ; 4.5
Cs-134	-2.3 ± 6.8 ; 6.8	-3.3 ± 7.5 ; 7.5	4.3 ± 6.3 ; 6.4	-1.8 ± 5.4 ; 5.4
Cs-137	10.2 ± 5.3 ; 5.6	7.0 ± 7.0 ; 7.1	6.0 ± 4.9 ; 5.0	-3.4 ± 5.7 ; 5.7
Ba/La-140	-187.6 ± 23.4 ; 40.8	-20.4 ± 5.6 ; 6.7	7.8 ± 6.1 ; 6.3	-13.0 ± 7.3 ; 7.6

D-12 (C) Lisbon

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2785	CDAP-4996	CDAP-7214	CDAP-8910
Volume	3,596	3,602	3,673	3,711
Mn-54	-6.3 ± 6.7 ; 6.8	-5.4 ± 6.8 ; 6.9	3.1 ± 5.6 ; 5.7	3.4 ± 6.1 ; 6.2
Fe-59	1.6 ± 13.0 ; 13.0	21.5 ± 11.6 ; 12.2	2.4 ± 11.6 ; 11.6	-9.6 ± 10.3 ; 10.4
Co-58	-1.7 ± 5.6 ; 5.6	2.5 ± 5.5 ; 5.5	-6.6 ± 5.1 ; 5.3	3.8 ± 4.0 ; 4.0
Co-60	-7.2 ± 8.9 ; 9.0	4.7 ± 7.0 ; 7.0	5.5 ± 5.9 ; 6.0	7.2 ± 6.4 ; 6.5
Zn-65	5.2 ± 10.1 ; 10.2	11.3 ± 11.9 ; 12.0	4.1 ± 12.2 ; 12.2	-5.7 ± 13.3 ; 13.4
Zr/Nb-95	14.1 ± 6.2 ; 6.7	11.8 ± 4.8 ; 5.3	-10.9 ± 6.1 ; 6.4	-4.4 ± 4.4 ; 4.4
Cs-134	2.0 ± 7.2 ; 7.2	-1.7 ± 7.9 ; 7.9	3.6 ± 5.4 ; 5.5	-1.2 ± 5.5 ; 5.6
Cs-137	5.0 ± 6.7 ; 6.8	-1.1 ± 5.4 ; 5.4	-0.4 ± 4.9 ; 4.9	4.3 ± 6.1 ; 6.2
Ba/La-140	37.6 ± 4.8 ; 8.2	8.0 ± 7.4 ; 7.6	-95.6 ± 8.1 ; 18.9	-3.3 ± 7.6 ; 7.6

Table 2. Airborne Particulates

Collection: Quarterly composites of weekly collections

ODCM-

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

Other LLDs: Mn-54 = 0.01; Fe-59 = 0.015; Co-58, Co-60 = 0.01; Zn-65 = 0.04; Zr/Nb-95 = 0.01; Ba/La-140 = 0.025 pCi/m³

Units: 10^{-4} pCi/m³

Sample Description and Concentration

D-45 McKinley Woods Road

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2786	CDAP-4997	CDAP-7215	CDAP-8911,2
Volume	3,700	3,697	3,466	3,428
Mn-54	-2.3 ± 7.3 ; 7.3	-1.5 ± 5.9 ; 5.9	-9.5 ± 7.5 ; 7.6	6.0 ± 5.0 ; 5.1
Fe-59	28.7 ± 12.2 ; 13.2	-5.6 ± 13.6 ; 13.7	-15.1 ± 10.2 ; 10.6	4.5 ± 5.9 ; 6.0
Co-58	-5.3 ± 6.9 ; 6.9	-7.4 ± 4.2 ; 4.4	2.1 ± 4.6 ; 4.6	0.3 ± 3.5 ; 3.5
Co-60	-6.1 ± 7.3 ; 7.4	5.5 ± 4.8 ; 4.9	7.5 ± 5.2 ; 5.4	-2.9 ± 5.0 ; 5.0
Zn-65	19.3 ± 13.7 ; 14.2	15.0 ± 12.8 ; 13.0	-19.9 ± 14.9 ; 15.3	2.6 ± 8.8 ; 8.8
Zr/Nb-95	0.2 ± 6.0 ; 6.0	5.7 ± 6.0 ; 6.1	-8.8 ± 5.8 ; 6.0	-1.7 ± 8.1 ; 8.1
Cs-134	12.3 ± 6.5 ; 6.9	0.4 ± 5.8 ; 5.8	6.0 ± 5.6 ; 5.7	1.1 ± 4.3 ; 4.3
Cs-137	3.4 ± 6.9 ; 6.9	2.3 ± 5.4 ; 5.4	0.6 ± 5.9 ; 5.9	2.9 ± 4.5 ; 4.5
Ba/La-140	-2.0 ± 6.7 ; 6.7	46.7 ± 6.0 ; 10.2	-42.1 ± 6.6 ; 10.0	-85.2 ± 6.1 ; 16.4

D-53 Grundy County Road

2002 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	CDAP-2787	CDAP-4998	CDAP-7216	CDAP-8913
Volume	3,711	3,648	3,661	3,713
Mn-54	1.9 ± 7.3 ; 7.3	-3.5 ± 6.4 ; 6.4	-6.2 ± 7.1 ; 7.2	-4.9 ± 6.2 ; 6.3
Fe-59	-36.1 ± 16.9 ; 18.1	-12.8 ± 10.6 ; 10.8	9.6 ± 9.7 ; 9.8	1.2 ± 10.1 ; 10.1
Co-58	-1.9 ± 6.1 ; 6.1	0.5 ± 5.1 ; 5.1	2.0 ± 4.3 ; 4.4	1.2 ± 4.1 ; 4.2
Co-60	9.9 ± 6.4 ; 6.7	-3.9 ± 8.0 ; 8.0	-0.6 ± 5.7 ; 5.7	8.8 ± 5.4 ; 5.6
Zn-65	-24.3 ± 15.2 ; 15.8	4.1 ± 12.7 ; 12.7	0.8 ± 11.5 ; 11.5	-5.7 ± 9.7 ; 9.7
Zr/Nb-95	-19.2 ± 5.9 ; 6.8	2.9 ± 6.4 ; 6.4	0.9 ± 4.8 ; 4.8	-5.6 ± 4.2 ; 4.3
Cs-134	-5.1 ± 8.3 ; 8.4	9.6 ± 7.1 ; 7.3	-0.1 ± 7.0 ; 7.0	3.6 ± 5.4 ; 5.4
Cs-137	14.3 ± 8.0 ; 8.4	-1.0 ± 4.6 ; 4.6	3.3 ± 5.6 ; 5.7	-0.1 ± 5.8 ; 5.8
Ba/La-140	-142.5 ± 9.8 ; 27.2	-31.6 ± 8.3 ; 10.1	-30.7 ± 6.6 ; 8.6	-4.9 ± 9.3 ; 9.3

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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

D-25 (C) Vince Biros Farm

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

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

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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

D-25 (C) Vince Biros Farm

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

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

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Table 3. Milk

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

Sample Description and Concentration

D-25 (C) Vince Biros Farm

Date Collected	10-17-02	10-31-02	11-14-02	12-05-02
Lab Code	CDMI-7004	CDMI-7454	CDMI-7810	CDMI-8142
I-131	-0.02 ± 0.15 ; 0.15	-0.06 ± 0.16 ; 0.16	-0.04 ± 0.16 ; 0.16	-0.07 ± 0.15 ; 0.15
Mn-54	0.9 ± 2.4 ; 2.4	2.0 ± 2.0 ; 2.1	1.1 ± 1.9 ; 1.9	1.4 ± 1.9 ; 1.9
Fe-59	0.5 ± 4.6 ; 4.6	2.8 ± 4.7 ; 4.8	-3.8 ± 3.9 ; 3.9	0.8 ± 4.6 ; 4.6
Co-58	-1.1 ± 2.4 ; 2.4	0.9 ± 2.2 ; 2.2	0.4 ± 1.5 ; 1.5	0.9 ± 1.8 ; 1.8
Co-60	-2.0 ± 2.7 ; 2.7	0.5 ± 2.3 ; 2.3	0.8 ± 2.2 ; 2.2	-0.4 ± 2.6 ; 2.6
Zn-65	-10.8 ± 6.7 ; 6.8	1.1 ± 5.9 ; 5.9	-11.3 ± 5.4 ; 5.6	-4.9 ± 5.9 ; 5.9
Zr/Nb-95	-3.1 ± 2.7 ; 2.7	1.2 ± 1.9 ; 1.9	-0.9 ± 2.1 ; 2.1	-0.7 ± 2.1 ; 2.1
Cs-134	-2.4 ± 2.6 ; 2.6	2.0 ± 2.3 ; 2.3	-0.8 ± 2.0 ; 2.0	1.1 ± 2.4 ; 2.4
Cs-137	-0.7 ± 2.7 ; 2.7	0.3 ± 2.4 ; 2.4	-3.1 ± 1.9 ; 2.0	-0.1 ± 2.2 ; 2.2
Ba/La-140	0.9 ± 2.2 ; 2.2	-2.8 ± 2.5 ; 2.5	2.5 ± 1.9 ; 1.9	-0.9 ± 1.8 ; 1.8

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Table 4. Fish, Edible Portions

Collection: Semiannually

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

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

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

Sample Description and Concentration

D-28 Dresden Pool of Illinois River

Date Collected	05-02-02	05-02-02	10-01-02	10-01-02
Lab Code	CDF-2892	CDF-2893	CDF-6425	CDF-6426
Type	Largemouth Bass	Freshwater Drum	Smallmouth Buffalo	Common Carp
Mn-54	0.1 ± 0.9 ; 0.9	-0.0 ± 0.7 ; 0.7	0.3 ± 0.7 ; 0.7	-0.4 ± 0.7 ; 0.7
Fe-59	-1.5 ± 2.0 ; 2.0	1.0 ± 1.3 ; 1.3	-0.9 ± 1.6 ; 1.6	0.2 ± 1.6 ; 1.6
Co-58	-0.7 ± 0.7 ; 0.7	-0.7 ± 0.5 ; 0.5	0.1 ± 0.7 ; 0.7	0.3 ± 0.6 ; 0.6
Co-60	-0.2 ± 1.0 ; 1.0	-0.7 ± 0.7 ; 0.7	0.4 ± 0.9 ; 0.9	0.0 ± 0.7 ; 0.7
Zn-65	1.6 ± 2.1 ; 2.1	0.2 ± 1.6 ; 1.6	-0.4 ± 2.2 ; 2.2	0.2 ± 1.7 ; 1.7
Zr/Nb-95	-1.1 ± 0.8 ; 0.8	0.4 ± 0.6 ; 0.6	-0.5 ± 0.7 ; 0.7	0.3 ± 0.7 ; 0.7
Cs-134	-0.2 ± 0.8 ; 0.8	0.1 ± 0.5 ; 0.5	-0.2 ± 0.9 ; 0.9	0.1 ± 0.9 ; 0.9
Cs-137	0.1 ± 0.8 ; 0.8	0.5 ± 0.7 ; 0.7	0.1 ± 0.7 ; 0.7	-0.2 ± 0.7 ; 0.7
Ba/La-140	-1.6 ± 0.8 ; 0.8	0.5 ± 0.5 ; 0.6	0.5 ± 0.7 ; 0.7	0.2 ± 0.6 ; 0.6

DRESDEN

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

D-46 (C) Des Plaines River, Upstream

Date Collected	05-02-02	05-02-02	10-01-02	10-01-02
Lab Code	CDF-2894	CDF-2895	CDF-6423	CDF-6424
Type	Freshwater Drum	Carp	Common Carp	Largemouth Bass
Mn-54	-0.5 ± 0.8 ; 0.8	0.2 ± 0.8 ; 0.8	-0.8 ± 1.0 ; 1.0	0.1 ± 0.7 ; 0.7
Fe-59	1.7 ± 1.6 ; 1.6	-1.0 ± 1.4 ; 1.4	1.0 ± 1.9 ; 1.9	0.3 ± 1.4 ; 1.4
Co-58	-0.5 ± 0.8 ; 0.8	0.5 ± 0.7 ; 0.7	-0.5 ± 0.8 ; 0.8	-0.2 ± 0.7 ; 0.7
Co-60	1.1 ± 0.9 ; 1.0	0.2 ± 0.8 ; 0.8	-0.3 ± 0.7 ; 0.7	0.1 ± 1.0 ; 1.0
Zn-65	0.5 ± 1.8 ; 1.8	-2.1 ± 2.2 ; 2.2	-2.4 ± 2.7 ; 2.7	0.0 ± 1.8 ; 1.8
Zr/Nb-95	-1.2 ± 0.8 ; 0.8	0.1 ± 0.6 ; 0.6	-0.5 ± 0.8 ; 0.8	-0.3 ± 0.7 ; 0.7
Cs-134	0.4 ± 0.8 ; 0.8	-0.1 ± 0.8 ; 0.8	-0.9 ± 1.0 ; 1.0	-0.1 ± 0.8 ; 0.8
Cs-137	0.5 ± 1.0 ; 1.0	-0.5 ± 0.8 ; 0.8	-0.7 ± 0.9 ; 0.9	0.8 ± 0.7 ; 0.8
Ba/La-140	-4.2 ± 0.8 ; 1.0	-2.4 ± 0.8 ; 0.9	-1.1 ± 0.9 ; 0.9	0.2 ± 0.5 ; 0.5

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Table 5. Bottom Sediments

Collection:	Semiannually
ODCM-Required LLDs:	Cs-134 = 0.15, Cs-137 = 0.18 pCi/g dry weight
Other LLDs:	Mn-54 = 0.15; Fe-59 = 0.60; Co-58,60 = 0.10; Zn-65 = 0.60; Zr/Nb-95 = 0.20; Ba/La = 0.60
Units:	10^{-2} pCi/g dry weight

Sample Description and Concentration

D-27 Dresden Lock & Dam

Date Collected	05-10-02
Lab Code	CDBS-3119
Mn-54	0.4 ± 0.7 ; 0.7
Fe-59	-0.5 ± 1.7 ; 1.7
Co-58	0.2 ± 0.6 ; 0.6
Co-60	-0.2 ± 0.9 ; 0.9
Zn-65	0.1 ± 1.8 ; 1.8
Zr/Nb-95	-0.7 ± 0.7 ; 0.7
Cs-134	1.3 ± 0.9 ; 0.9
Cs-137	1.4 ± 0.9 ; 0.9
Ba/La-140	-0.1 ± 0.6 ; 0.6

D-27 Dresden Lock & Dam

Date Collected	10-04-02
Lab Code	CDBS-6538
Mn-54	0.2 ± 0.6 ; 0.7
Fe-59	1.9 ± 1.4 ; 1.4
Co-58	0.5 ± 0.6 ; 0.6
Co-60	1.2 ± 0.7 ; 0.7
Zn-65	-1.5 ± 1.7 ; 1.7
Zr/Nb-95	-1.1 ± 0.7 ; 0.7
Cs-134	1.7 ± 0.7 ; 0.7
Cs-137	3.9 ± 1.4 ; 1.5
Ba/La-140	-0.9 ± 0.6 ; 0.7

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Table 6. Vegetation

Collection: Annually

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

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

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

Sample Description and Concentration		
	D-Control Glasscock Farm	
Date Collected	09-20-02	09-20-02
Lab Code	CDVE-6163	CDVE-6164
Type	Cabbage	Radishes
Mn-54	0.6 ± 0.5 ; 0.5	-0.1 ± 0.6 ; 0.6
Fe-59	0.2 ± 1.1 ; 1.1	-0.9 ± 1.4 ; 1.4
Co-58	0.1 ± 0.6 ; 0.6	-0.0 ± 0.6 ; 0.6
Co-60	-0.0 ± 0.6 ; 0.6	0.0 ± 0.7 ; 0.7
Zn-65	-0.8 ± 1.5 ; 1.5	-0.6 ± 1.5 ; 1.5
Zr/Nb-95	-1.1 ± 0.6 ; 0.6	0.1 ± 0.5 ; 0.5
I-131	-0.1 ± 0.6 ; 0.6	-0.2 ± 0.6 ; 0.6
Cs-134	-0.2 ± 0.7 ; 0.7	-0.2 ± 0.8 ; 0.8
Cs-137	-0.1 ± 0.7 ; 0.7	-0.3 ± 0.6 ; 0.6
Ba/La-140	-0.1 ± 0.7 ; 0.7	-0.4 ± 0.5 ; 0.5
	D-Quad 1 Chris Locknar	
Date Collected	09-14-02	09-14-02
Lab Code	CDVE-5956,7	CDVE-5958
Type	Cabbage	Potatoes
Mn-54	0.1 ± 0.4 ; 0.4	0.2 ± 0.9 ; 0.9
Fe-59	1.2 ± 1.0 ; 1.0	0.0 ± 1.6 ; 1.6
Co-58	0.4 ± 0.5 ; 0.5	-0.6 ± 0.9 ; 0.9
Co-60	0.3 ± 0.6 ; 0.6	-0.1 ± 1.0 ; 1.0
Zn-65	-1.1 ± 1.2 ; 1.2	0.4 ± 2.3 ; 2.3
Zr/Nb-95	-0.0 ± 0.4 ; 0.4	-0.1 ± 0.9 ; 0.9
I-131	-0.2 ± 0.4 ; 0.4	-0.0 ± 0.8 ; 0.8
Cs-134	0.2 ± 0.6 ; 0.6	0.5 ± 0.9 ; 0.9
Cs-137	0.4 ± 0.4 ; 0.4	-0.5 ± 0.9 ; 0.9
Ba/La-140	0.2 ± 0.5 ; 0.5	-1.6 ± 1.1 ; 1.1

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Table 6. Vegetation

Collection: Annually

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

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

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

Sample Description and Concentration		
	D-Quad 2 Robert Pagliano	
Date Collected	09-14-02	09-14-02
Lab Code	CDVE-5959	CDVE-5960
Type	Cabbage	Beets
Mn-54	0.3 ± 0.9 ; 0.9	0.2 ± 0.6 ; 0.6
Fe-59	-1.5 ± 2.5 ; 2.5	0.4 ± 1.3 ; 1.3
Co-58	-0.2 ± 1.0 ; 1.0	-0.1 ± 0.6 ; 0.6
Co-60	0.3 ± 1.4 ; 1.4	-0.4 ± 0.6 ; 0.6
Zn-65	-1.4 ± 2.9 ; 2.9	-0.4 ± 1.5 ; 1.5
Zr/Nb-95	0.8 ± 0.9 ; 0.9	-0.7 ± 0.6 ; 0.6
I-131	0.0 ± 0.7 ; 0.7	0.3 ± 0.5 ; 0.6
Cs-134	0.4 ± 1.1 ; 1.1	0.0 ± 0.6 ; 0.6
Cs-137	0.1 ± 0.9 ; 0.9	0.3 ± 0.6 ; 0.6
Ba/La-140	-0.3 ± 0.8 ; 0.8	0.6 ± 0.5 ; 0.5
	D-Quad 3 Jim Bloom	
Date Collected	09-14-02	09-14-02
Lab Code	CDVE-5961	CDVE-5962
Type	Cabbage	Onions
Mn-54	0.2 ± 0.7 ; 0.7	-0.5 ± 0.9 ; 0.9
Fe-59	-0.6 ± 1.4 ; 1.4	0.3 ± 1.5 ; 1.5
Co-58	0.1 ± 0.7 ; 0.7	0.1 ± 0.7 ; 0.7
Co-60	-0.3 ± 0.7 ; 0.8	0.2 ± 0.8 ; 0.8
Zn-65	-0.3 ± 1.7 ; 1.7	0.6 ± 1.2 ; 1.2
Zr/Nb-95	-0.5 ± 0.6 ; 0.6	0.1 ± 0.8 ; 0.8
I-131	0.2 ± 0.7 ; 0.7	-0.6 ± 0.8 ; 0.8
Cs-134	1.2 ± 0.8 ; 0.8	-0.5 ± 0.9 ; 0.9
Cs-137	0.5 ± 0.7 ; 0.7	-0.9 ± 0.8 ; 0.8
Ba/La-140	-0.7 ± 0.9 ; 0.9	0.6 ± 0.6 ; 0.7

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Table 6. Vegetation

Collection: Annually

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

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

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

Sample Description and Concentration		
	D-Quad 4 J.D. Carmichael	
Date Collected	09-14-02	09-14-02
Lab Code	CDVE-5963	CDVE-5964
Type	Carrots	Beet Greens
Mn-54	-0.1 ± 0.6 ; 0.6	0.6 ± 0.7 ; 0.7
Fe-59	-0.4 ± 1.4 ; 1.4	-1.7 ± 1.9 ; 1.9
Co-58	-0.5 ± 0.6 ; 0.6	0.1 ± 0.7 ; 0.7
Co-60	0.1 ± 0.7 ; 0.7	0.3 ± 1.0 ; 1.0
Zn-65	0.9 ± 1.5 ; 1.5	0.5 ± 1.9 ; 1.9
Zr/Nb-95	-0.2 ± 0.5 ; 0.5	0.6 ± 0.8 ; 0.8
I-131	0.5 ± 0.6 ; 0.6	0.6 ± 0.6 ; 0.6
Cs-134	-0.1 ± 0.8 ; 0.8	-0.2 ± 0.8 ; 0.8
Cs-137	0.0 ± 0.7 ; 0.7	-0.6 ± 0.9 ; 0.9
Ba/La-140	-0.6 ± 0.4 ; 0.4	0.3 ± 1.0 ; 1.0

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

D-51 Dresden Lock & Dam

2002 Collection Period	January	February	March
Lab Code	CDSW-792	CDSW-1482	CDSW-2177
Gross Beta	4.7 ± 1.1 ; 1.3	5.2 ± 1.3 ; 1.5	3.9 ± 1.2 ; 1.4
Mn-54	-0.6 ± 1.0 ; 1.0	1.7 ± 1.6 ; 1.6	1.0 ± 1.8 ; 1.8
Fe-59	-0.6 ± 1.7 ; 1.7	3.5 ± 3.3 ; 3.3	0.4 ± 4.0 ; 4.0
Co-58	0.4 ± 1.0 ; 1.0	-1.4 ± 1.6 ; 1.6	-0.5 ± 1.6 ; 1.6
Co-60	0.9 ± 1.1 ; 1.2	1.5 ± 1.6 ; 1.7	-1.9 ± 1.9 ; 1.9
Zn-65	-0.3 ± 2.1 ; 2.1	-0.2 ± 3.0 ; 3.0	2.1 ± 3.9 ; 3.9
Zr/Nb-95	-1.7 ± 1.2 ; 1.2	-1.3 ± 3.7 ; 3.7	1.6 ± 2.1 ; 2.1
Cs-134	0.1 ± 1.2 ; 1.2	2.0 ± 1.8 ; 1.9	-0.1 ± 2.1 ; 2.1
Cs-137	-0.9 ± 1.1 ; 1.1	0.3 ± 1.9 ; 1.9	-0.5 ± 2.1 ; 2.1
Ba/La-140	1.9 ± 1.2 ; 1.2	0.6 ± 2.0 ; 2.0	-1.0 ± 2.0 ; 2.0

2002 Collection Period	April	May	June
Lab Code	CDSW-2759	CDSW-3756,7	CDSW-4292
Gross Beta	3.1 ± 0.9 ; 1.0	4.5 ± 0.7 ; 0.9	3.7 ± 1.0 ; 1.2
Mn-54	0.4 ± 1.2 ; 1.2	0.5 ± 1.1 ; 1.1	-0.1 ± 2.1 ; 2.1
Fe-59	1.1 ± 2.3 ; 2.4	0.2 ± 2.3 ; 2.3	-3.8 ± 3.8 ; 3.9
Co-58	0.1 ± 1.0 ; 1.0	-0.5 ± 1.2 ; 1.2	1.9 ± 1.8 ; 1.8
Co-60	0.1 ± 1.0 ; 1.0	-0.9 ± 1.3 ; 1.3	1.6 ± 2.3 ; 2.3
Zn-65	-3.7 ± 2.5 ; 2.6	2.8 ± 2.4 ; 2.4	2.3 ± 4.5 ; 4.5
Zr/Nb-95	-2.1 ± 1.3 ; 1.3	-2.8 ± 2.4 ; 2.4	-0.5 ± 1.6 ; 1.6
Cs-134	-0.8 ± 1.4 ; 1.4	-0.3 ± 1.2 ; 1.2	1.0 ± 2.3 ; 2.3
Cs-137	0.8 ± 1.2 ; 1.2	-0.7 ± 1.2 ; 1.2	-1.0 ± 2.0 ; 2.0
Ba/La-140	-1.0 ± 1.2 ; 1.2	6.2 ± 1.2 ; 1.5	-1.8 ± 2.2 ; 2.2

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

D-51 Dresden Lock & Dam

2002 Collection Period	July	August	September
Lab Code	CDSW-5462	CDSW-5996	CDSW-6712
Gross Beta	5.5 ± 1.7 ; 1.9	4.7 ± 1.6 ; 1.7	5.2 ± 1.5 ; 1.7
Mn-54	-0.0 ± 1.4 ; 1.4	1.2 ± 3.5 ; 3.5	-2.0 ± 3.1 ; 3.1
Fe-59	5.0 ± 3.0 ; 3.1	7.8 ± 9.4 ; 9.5	-3.3 ± 6.0 ; 6.0
Co-58	0.9 ± 1.3 ; 1.3	1.2 ± 3.6 ; 3.6	-0.7 ± 3.7 ; 3.7
Co-60	0.6 ± 1.4 ; 1.4	-0.1 ± 5.2 ; 5.2	-0.5 ± 3.8 ; 3.8
Zn-65	-0.7 ± 3.3 ; 3.3	-9.1 ± 11.1 ; 11.1	2.1 ± 7.1 ; 7.1
Zr/Nb-95	0.5 ± 1.5 ; 1.5	-3.5 ± 4.9 ; 4.9	-2.6 ± 6.9 ; 6.9
Cs-134	0.2 ± 1.6 ; 1.6	3.4 ± 4.7 ; 4.8	-2.2 ± 3.5 ; 3.5
Cs-137	0.4 ± 1.4 ; 1.4	-6.4 ± 4.6 ; 4.7	1.9 ± 3.8 ; 3.8
Ba/La-140	2.9 ± 1.6 ; 1.7	1.0 ± 5.1 ; 5.1	3.7 ± 2.6 ; 2.7

2002 Collection Period	October	November	December
Lab Code	CDSW-7647	CDSW-8264	CDSW-8586
Gross Beta	6.4 ± 1.3 ; 1.6	7.6 ± 1.2 ; 1.7	6.6 ± 1.3 ; 1.6
Mn-54	0.9 ± 1.9 ; 1.9	1.2 ± 1.7 ; 1.7	0.5 ± 1.6 ; 1.6
Fe-59	-0.9 ± 3.8 ; 3.8	1.3 ± 2.8 ; 2.8	1.5 ± 3.3 ; 3.3
Co-58	-1.8 ± 1.7 ; 1.7	0.2 ± 1.6 ; 1.6	-0.2 ± 1.3 ; 1.3
Co-60	0.4 ± 1.9 ; 1.9	0.3 ± 2.1 ; 2.1	0.2 ± 1.9 ; 1.9
Zn-65	-0.6 ± 4.5 ; 4.5	-1.0 ± 3.2 ; 3.2	-0.7 ± 4.2 ; 4.2
Zr/Nb-95	2.1 ± 2.2 ; 2.2	-2.2 ± 1.8 ; 1.8	-1.5 ± 1.4 ; 1.4
Cs-134	-2.4 ± 2.0 ; 2.1	-0.5 ± 2.1 ; 2.1	1.8 ± 1.7 ; 1.8
Cs-137	0.1 ± 2.0 ; 2.0	0.6 ± 1.8 ; 1.8	1.1 ± 2.1 ; 2.1
Ba/La-140	3.4 ± 2.1 ; 2.2	-3.2 ± 2.1 ; 2.2	-0.3 ± 1.9 ; 1.9

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

D-52 (C) DesPlaines River

2002 Collection Period	January	February	March
Lab Code	CDSW-793	CDSW-1483	CDSW-2178
Gross Beta	5.0 ± 1.1 ; 1.3	7.8 ± 1.5 ; 1.9	6.5 ± 1.4 ; 1.8
Mn-54	0.6 ± 1.6 ; 1.6	0.3 ± 1.5 ; 1.5	0.0 ± 1.6 ; 1.6
Fe-59	0.3 ± 3.1 ; 3.1	0.6 ± 3.2 ; 3.2	3.7 ± 3.1 ; 3.2
Co-58	-0.4 ± 1.5 ; 1.5	0.8 ± 1.5 ; 1.5	-0.8 ± 1.5 ; 1.5
Co-60	-0.7 ± 1.9 ; 1.9	1.2 ± 1.6 ; 1.6	-0.2 ± 2.1 ; 2.1
Zn-65	2.6 ± 3.1 ; 3.1	-0.5 ± 4.1 ; 4.1	-2.0 ± 3.2 ; 3.3
Zr/Nb-95	-0.7 ± 1.9 ; 1.9	-2.1 ± 3.5 ; 3.5	-1.6 ± 1.6 ; 1.6
Cs-134	0.4 ± 1.6 ; 1.6	1.5 ± 2.1 ; 2.1	-0.3 ± 1.5 ; 1.5
Cs-137	0.4 ± 2.0 ; 2.0	0.9 ± 2.0 ; 2.0	2.1 ± 1.7 ; 1.7
Ba/La-140	-3.2 ± 2.4 ; 2.4	-8.5 ± 2.6 ; 2.8	2.4 ± 1.6 ; 1.6

2002 Collection Period	April	May	June
Lab Code	CDSW-2760	CDSW-3758	CDSW-4293
Gross Beta	6.1 ± 1.2 ; 1.5	7.5 ± 1.3 ; 1.8	6.0 ± 1.2 ; 1.5
Mn-54	1.9 ± 1.5 ; 1.5	-0.9 ± 2.0 ; 2.0	-0.4 ± 1.7 ; 1.7
Fe-59	-2.3 ± 2.5 ; 2.6	-0.1 ± 3.7 ; 3.7	3.2 ± 3.2 ; 3.3
Co-58	-1.8 ± 1.6 ; 1.6	1.0 ± 2.1 ; 2.1	0.3 ± 1.6 ; 1.6
Co-60	-0.3 ± 1.6 ; 1.6	0.7 ± 2.0 ; 2.0	0.3 ± 1.8 ; 1.8
Zn-65	0.9 ± 2.7 ; 2.7	0.2 ± 3.7 ; 3.7	1.6 ± 3.7 ; 3.7
Zr/Nb-95	-0.3 ± 1.4 ; 1.4	-0.1 ± 2.2 ; 2.2	-3.8 ± 1.9 ; 2.0
Cs-134	-0.2 ± 1.9 ; 1.9	-1.2 ± 2.5 ; 2.5	-1.4 ± 2.0 ; 2.0
Cs-137	-1.6 ± 1.7 ; 1.7	0.7 ± 2.2 ; 2.2	2.1 ± 2.0 ; 2.1
Ba/La-140	4.8 ± 1.8 ; 1.9	-6.1 ± 2.5 ; 2.7	3.7 ± 1.6 ; 1.7

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

D-52 (C) DesPlaines River

2002 Collection Period	July	August	September
Lab Code	CDSW-5463	CDSW-5997	CDSW-6713
Gross Beta	7.5 ± 1.9 ; 2.3	5.6 ± 1.7 ; 1.9	6.7 ± 1.6 ; 1.9
Mn-54	-0.4 ± 0.9 ; 0.9	-1.6 ± 2.0 ; 2.0	2.6 ± 2.7 ; 2.8
Fe-59	-2.5 ± 1.6 ; 1.6	1.0 ± 3.2 ; 3.2	-0.3 ± 6.5 ; 6.5
Co-58	-0.5 ± 0.8 ; 0.8	-1.2 ± 1.9 ; 1.9	-1.7 ± 2.5 ; 2.5
Co-60	-0.3 ± 1.0 ; 1.0	2.5 ± 2.1 ; 2.1	-0.3 ± 2.6 ; 2.6
Zn-65	2.0 ± 1.7 ; 1.7	0.6 ± 4.9 ; 4.9	-2.1 ± 6.9 ; 6.9
Zr/Nb-95	-2.5 ± 0.9 ; 1.0	-3.4 ± 1.9 ; 2.0	-1.0 ± 3.3 ; 3.3
Cs-134	-0.5 ± 1.1 ; 1.1	-0.6 ± 2.8 ; 2.8	2.1 ± 2.7 ; 2.7
Cs-137	0.8 ± 1.0 ; 1.0	0.9 ± 2.5 ; 2.5	-0.1 ± 2.8 ; 2.8
Ba/La-140	-8.1 ± 1.3 ; 1.8	-6.3 ± 3.1 ; 3.3	4.2 ± 2.9 ; 3.0

2002 Collection Period	October	November	December
Lab Code	CDSW-7648	CDSW-8265	CDSW-8587,8
Gross Beta	6.2 ± 1.3 ; 1.6	9.4 ± 1.5 ; 2.1	8.2 ± 1.0 ; 1.3
Mn-54	2.2 ± 1.8 ; 1.9	-1.4 ± 1.8 ; 1.8	0.1 ± 1.9 ; 1.9
Fe-59	2.3 ± 4.3 ; 4.3	3.3 ± 3.3 ; 3.4	-0.5 ± 3.3 ; 3.3
Co-58	0.4 ± 1.9 ; 1.9	-1.4 ± 1.5 ; 1.5	-0.6 ± 1.5 ; 1.5
Co-60	0.3 ± 1.7 ; 1.7	-0.4 ± 1.4 ; 1.4	-0.7 ± 2.1 ; 2.1
Zn-65	3.6 ± 4.4 ; 4.4	-1.0 ± 4.5 ; 4.5	-0.2 ± 4.0 ; 4.0
Zr/Nb-95	-1.5 ± 2.1 ; 2.1	-1.9 ± 1.9 ; 1.9	-1.2 ± 1.7 ; 1.7
Cs-134	0.2 ± 2.1 ; 2.1	1.0 ± 2.2 ; 2.2	1.8 ± 2.0 ; 2.0
Cs-137	-0.4 ± 1.8 ; 1.8	-1.3 ± 2.3 ; 2.3	1.5 ± 1.7 ; 1.7
Ba/La-140	-4.0 ± 2.5 ; 2.6	-6.4 ± 2.4 ; 2.6	-2.5 ± 2.5 ; 2.6

Table 7. Surface Water

Collection: Quarterly composites of weekly collections

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

Units: pCi/L

2002 Collection Period	Sample Description and Concentration Lab Code	Tritium
	D-51 Dresden Lock & Dam	
1st Quarter	CDSW - 1968,9	711 ± 79 ; 105
2nd Quarter	CDSW - 4295	148 ± 84 ; 86
3rd Quarter	CDSW - 6714	271 ± 101 ; 108
4th Quarter	CDSW - 8590[a]	1,974 ± 148 ; 306
	D-52 DesPlaines River	
1st Quarter	CDSW - 1970	66 ± 68 ; 68
2nd Quarter	CDSW - 4296	10 ± 78 ; 78
3rd Quarter	CDSW - 6715	37 ± 91 ; 91
4th Quarter	CDSW - 8591	194 ± 88 ; 92

[a] Tritium repeated with a result of 1,757 +/- 132 pCi/L.

Table 8. Well Water

Collection: Quarterly

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

Units: pCi/L

Sample Description and Concentration

D-23 Thorsen Well

Date Collected	01-11-02	04-12-02	07-12-02	10-11-02
Lab Code	CDWW-216	CDWW-2270	CDWW-4619	CDWW-6930
H-3	570 ± 90 ; 119	458 ± 90 ; 109	519 ± 92 ; 116	411 ± 94 ; 109
Mn-54	0.5 ± 1.2 ; 1.2	0.7 ± 1.1 ; 1.1	0.4 ± 0.9 ; 0.9	-1.2 ± 2.6 ; 2.6
Fe-59	-1.3 ± 2.4 ; 2.4	-1.7 ± 2.1 ; 2.2	0.9 ± 1.7 ; 1.7	9.0 ± 4.5 ; 4.6
Co-58	0.3 ± 1.1 ; 1.1	0.4 ± 1.0 ; 1.0	0.3 ± 0.9 ; 0.9	0.2 ± 3.0 ; 3.0
Co-60	0.1 ± 1.1 ; 1.1	-0.7 ± 1.1 ; 1.1	0.5 ± 0.9 ; 0.9	2.0 ± 2.0 ; 2.0
Zn-65	-0.1 ± 2.6 ; 2.6	-3.7 ± 2.6 ; 2.6	-9.0 ± 2.7 ; 3.0	-3.4 ± 4.7 ; 4.8
Zr/Nb-95	0.1 ± 1.2 ; 1.2	-1.6 ± 1.1 ; 1.1	-3.0 ± 1.1 ; 1.2	-4.0 ± 2.8 ; 2.9
Cs-134	0.8 ± 1.2 ; 1.2	1.0 ± 1.1 ; 1.1	0.7 ± 1.0 ; 1.0	0.9 ± 2.3 ; 2.3
Cs-137	-0.1 ± 1.4 ; 1.4	-0.0 ± 1.2 ; 1.2	1.3 ± 1.1 ; 1.1	2.5 ± 3.1 ; 3.1
Ba/La-140	-1.0 ± 1.2 ; 1.2	-0.3 ± 1.3 ; 1.3	-1.3 ± 1.3 ; 1.3	-2.5 ± 3.4 ; 3.4

D-35 Dresden Lock & Dam

Date Collected	01-11-02	04-12-02	07-12-02	10-11-02
Lab Code	CDWW-217	CDWW-2271	CDWW-4620	CDWW-6931
H-3	41 ± 66 ; 67	34 ± 69 ; 69	-52 ± 65 ; 66	-119 ± 68 ; 70
Mn-54	-0.1 ± 1.2 ; 1.2	-0.7 ± 1.5 ; 1.5	1.0 ± 2.7 ; 2.7	4.3 ± 3.3 ; 3.3
Fe-59	1.4 ± 2.1 ; 2.1	1.4 ± 2.8 ; 2.8	0.2 ± 4.7 ; 4.7	-7.1 ± 6.8 ; 6.9
Co-58	-0.7 ± 1.2 ; 1.2	1.3 ± 1.7 ; 1.7	0.2 ± 2.5 ; 2.5	0.6 ± 3.4 ; 3.4
Co-60	1.3 ± 1.3 ; 1.3	0.6 ± 1.8 ; 1.8	1.6 ± 2.7 ; 2.7	2.1 ± 4.5 ; 4.5
Zn-65	-2.7 ± 3.1 ; 3.1	2.2 ± 3.5 ; 3.5	-3.4 ± 4.9 ; 4.9	-2.1 ± 6.1 ; 6.1
Zr/Nb-95	0.4 ± 1.3 ; 1.3	-1.0 ± 1.6 ; 1.6	-4.3 ± 2.5 ; 2.6	-2.8 ± 2.8 ; 2.8
Cs-134	0.1 ± 1.2 ; 1.2	0.4 ± 1.9 ; 1.9	-0.4 ± 2.9 ; 2.9	-1.3 ± 4.2 ; 4.2
Cs-137	-0.3 ± 1.3 ; 1.3	-0.3 ± 1.9 ; 1.9	0.6 ± 3.2 ; 3.2	-1.4 ± 3.4 ; 3.4
Ba/La-140	-0.3 ± 1.3 ; 1.3	-0.8 ± 2.0 ; 2.0	-9.1 ± 3.7 ; 3.9	-10.2 ± 4.6 ; 4.9

MILCH ANIMALS, NEAREST LIVESTOCK, AND NEAREST RESIDENCES CENSUSES

DRESDEN

MILCH ANIMALS CENSUS, 2002

Halpin's Dairy Farm

16.0 miles, Sector J

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

D-25 V. Biros Dairy Farm

11.4 miles, Sector L

25% pasture
25% ground grain
50% green chop

Sherman Tweet Farm

8.5 miles, Sector Q

25% pasture
25% ground grain
50% hay or silage

Census conducted by A.D. Lewis on August 28, 2002

DRESDEN

NEAREST LIVESTOCK CENSUS, 2002

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

Sector	Direction	Distance
A	N	1.4 miles
B	NNE	6.0 miles
C	NE	2.5 miles
D	ENE	4.7 miles
E	E	None
F	ESE	None
G	SE	None
H	SSE	None
J	S	None
K	SSW	None
L	SW	None
M	WSW	None
N	W	0.5 miles
P	WNW	0.5 miles
Q	NW	0.5 miles
R	NNW	1.0 miles

Census conducted by A.D. Lewis on August 28, 2002

DRESDEN

NEAREST RESIDENCE CENSUS, 2002

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

Sector	Direction	Distance
A	N	2.3 miles
B	NNE	0.8 miles
C	NE	0.8 miles
D	ENE	0.7 miles
E	E	1.1 miles
F	ESE	1.0 miles
G	SE	0.6 miles
H	SSE	0.5 miles
J	S	0.5 miles
K	SSW	3.3 miles
L	SW	3.6 miles
M	WSW	5.8 miles
N	W	3.5 miles
P	WNW	3.7 miles
Q	NW	2.6 miles
R	NNW	0.8 miles

Census conducted by A.D. Lewis on August 28, 2002

DRESDEN

4.0 TLD DATA*

* TLD Data provided by Exelon Generation Company.

Exelon Nuclear
Environmental Site Report for Dresden

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
I. INDICATOR LOCATIONS					
a. Air Samplers					
D-01-1	ONSITE STATION 1	27.0	21.0	22.0	24.0
D-01-2	ONSITE STATION 1	29.0	21.0	17.0	23.0
D-02-1	ONSITE STATION 2	25.0	20.0	18.0	20.0
D-02-2	ONSITE STATION 2	24.0	20.0	19.0	22.0
D-03-1	ONSITE STATION 3	24.0	17.0	18.0	20.0
D-03-2	ONSITE STATION 3	24.0	18.0	18.0	21.0
D-04-1	COLLINS ROAD	26.0	21.0	22.0	24.0
D-04-2	COLLINS ROAD	24.0	22.0	19.0	24.0
D-07-1	CLAY PRODUCTS	25.0	20.0	17.0	24.0
D-07-2	CLAY PRODUCTS	27.0	19.0	19.0	22.0
D-08-1	PRAIRIE PARK	27.0	23.0	19.0	24.0
D-08-2	PRAIRIE PARK	26.0	20.0	22.0	24.0
D-10-1	GOOSE LAKE VILLAGE	23.0	21.0	21.0	24.0
D-10-2	GOOSE LAKE VILLAGE	26.0	21.0	21.0	24.0
D-13-1	MINOOKA	25.0	18.0	16.0	21.0
D-13-2	MINOOKA	24.0	17.0	18.0	20.0
D-14-1	CHANNAHON	24.0	20.0	18.0	21.0
D-14-2	CHANNAHON	22.0	20.0	20.0	22.0
D-45-1	MCKINLEY WOODS ROAD	27.0	24.0	20.0	25.0
D-45-2	MCKINLEY WOODS ROAD	25.0	20.0	22.0	26.0
D-53-1	GRUNDY COUNTY LINE ROAD	24.0	19.0	18.0	19.0
D-53-2	GRUNDY COUNTY LINE ROAD	22.0	17.0	16.0	20.0
	Air Sampler Mean ± S. D.	25.0 ±1.7	20.0 ±1.8	19.1 ±1.9	22.5 ±2.0
	Annual Air Sampler Mean ± S.D.				21.6 ±2.9
b. Inner Ring (100 Series)					
D-101-1		29.0	23.0	22.0	26.0
D-101-2		23.0	20.0	20.0	22.0
D-102-1		28.0	27.0	22.0	27.0
D-102-2		25.0	23.0	20.0	25.0
D-103-1		22.0	22.0	18.0	23.0
D-103-2		23.0	22.0	21.0	23.0
D-104-1		23.0	20.0	21.0	23.0
D-104-2		30.0	27.0	23.0	25.0
D-105-1		23.0	20.0	18.0	23.0
D-105-2		31.0	24.0	22.0	23.0
D-106-1		23.0	19.0	20.0	21.0
D-106-2		19.0	17.0	18.0	19.0
D-107-1		24.0	19.0	16.0	21.0
D-107-2		21.0	18.0	15.0	20.0
D-108-1		28.0	25.0	24.0	26.0
D-108-2		28.0	20.0	20.0	23.0

Exelon Nuclear
Environmental Site Report for Dresden

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
b. Inner Ring (100 Series)					
D-109-1		27.0	21.0	19.0	26.0
D-109-2		23.0	22.0	19.0	25.0
D-110-3		27.0	24.0	25.0	28.0
D-110-4		26.0	25.0	24.0	28.0
D-111-1		27.0	26.0	22.0	25.0
D-111-2		29.0	23.0	19.0	24.0
D-112A-1		24.0	18.0	22.0	26.0
D-112A-2		22.0	19.0	20.0	23.0
D-113-1		21.0	18.0	19.0	19.0
D-113-2		26.0	20.0	21.0	22.0
D-114-1		21.0	19.0	20.0	22.0
D-114-2		22.0	21.0	19.0	22.0
D-115-1		28.0	24.0	17.0	22.0
D-115-2		28.0	21.0	19.0	23.0
D-116-1		28.0	25.0	22.0	26.0
D-116-2		31.0	24.0	22.0	26.0
	Inner Ring Mean ± S.D.	25.3 ±3.3	21.8 ±2.8	20.3 ±2.3	23.7 ±2.4
	Annual Inner Ring Mean ± S.D.				22.8 ±3.3
c. Outer Ring (200 Series)					
D-201-1		32.0	25.0	25.0	28.0
D-201-2		29.0	28.0	25.0	28.0
D-202-1		28.0	23.0	21.0	23.0
D-202-2		27.0	24.0	20.0	24.0
D-203-1		22.0	20.0	16.0	21.0
D-203-2		26.0	20.0	22.0	24.0
D-204-1		28.0	21.0	22.0	25.0
D-204-2		26.0	19.0	20.0	22.0
D-205-1		28.0	20.0	19.0	26.0
D-205-2		25.0	20.0	18.0	25.0
D-206-1		30.0	22.0	21.0	24.0
D-206-2		26.0	21.0	19.0	22.0
D-207-1		26.0	19.0	17.0	22.0
D-207-2		27.0	20.0	20.0	22.0
D-208-1		23.0	21.0	18.0	18.0
D-208-2		26.0	19.0	18.0	22.0
D-209-1		25.0	16.0	18.0	20.0
D-209-2		21.0	19.0	18.0	19.0
D-210-1		25.0	21.0	18.0	23.0
D-210-2		28.0	22.0	23.0	25.0
D-211-1		25.0	25.0	19.0	23.0
D-211-2		28.0	25.0	23.0	24.0

Exelon Nuclear
Environmental Site Report for Dresden

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 2002	Quarter 2 2002	Quarter 3 2002	Quarter 4 2002
Outer Ring (200 Series)					
D-212-3		22.0	19.0	18.0	22.0
D-212-4		23.0	19.0	18.0	22.0
D-213-1		29.0	20.0	17.0	19.0
D-213-2		24.0	17.0	16.0	21.0
D-214-1		28.0	25.0	22.0	26.0
D-214-2		31.0	27.0	24.0	28.0
D-215-1		31.0	25.0	23.0	27.0
D-215-2		29.0	23.0	20.0	27.0
D-216-1		29.0	22.0	21.0	24.0
D-216-2		28.0	22.0	19.0	25.0
	Outer Ring Mean ± S.D.	26.7 ±2.8	21.5 ±2.8	19.9 ±2.5	23.5 ±2.7
	Annual Outer Ring Mean ± S.D.				22.9 ±3.7
	INDICATOR LOCATION MEAN ± S.D.	25.8 ±2.8	21.2 ±2.7	19.8 ±2.3	23.3 ±2.4
	Annual INDICATOR MEAN ± S.D.				22.5 ±3.4
II. CONTROL LOCATIONS					
D-12-1	LISBON	24.0	20.0	19.0	23.0
D-12-2	LISBON	25.0	16.0	18.0	19.0
	CONTROL LOCATION MEAN ± S.D.	24.5 ±0.7	18.0 ±2.8	18.5 ±0.7	21.0 ±2.8
	Annual CONTROL LOCATION MEAN ± S.D.				20.5 ±3.2

GRAPHS OF DATA TRENDS

Air Particulates - Gross Beta

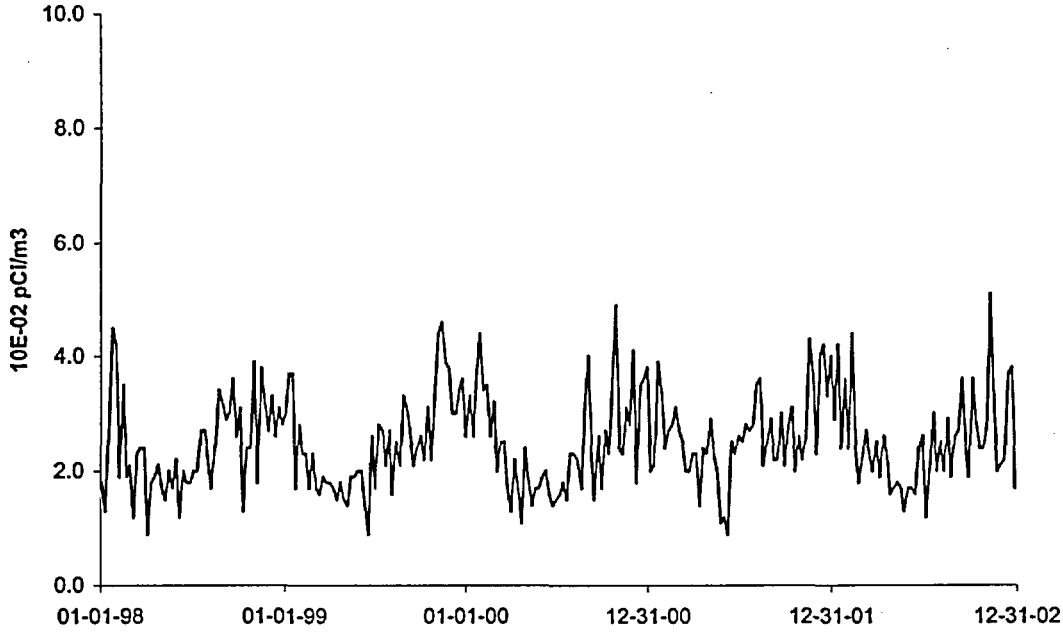

Figure 1. Continuous collection with weekly exchange of particulate filter.

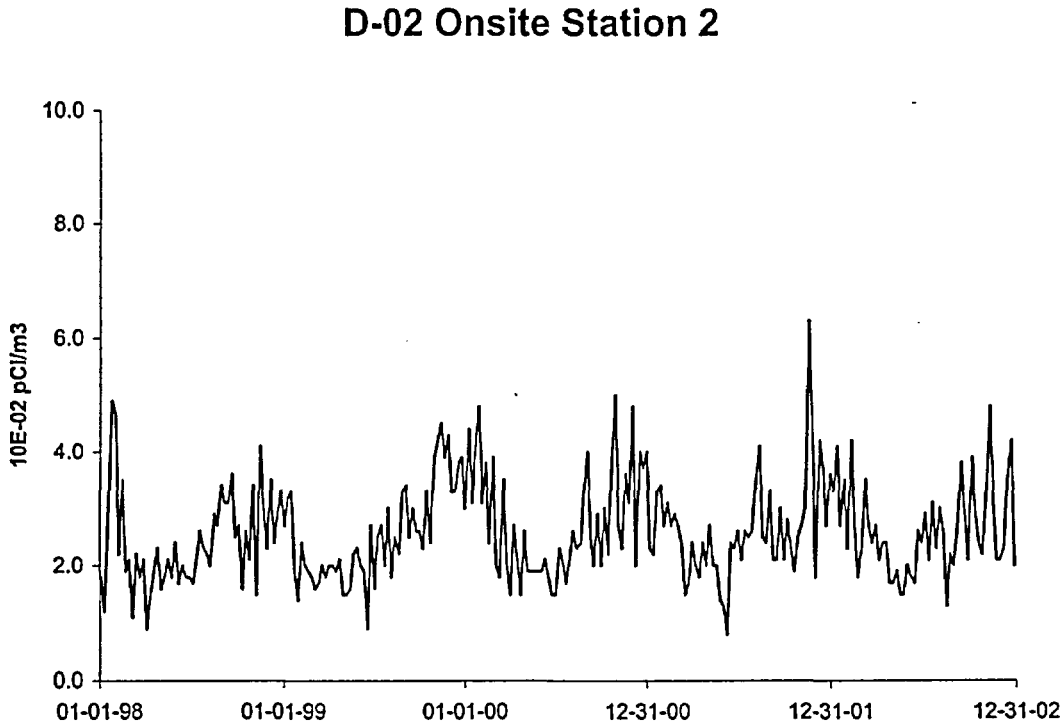

Figure 2. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

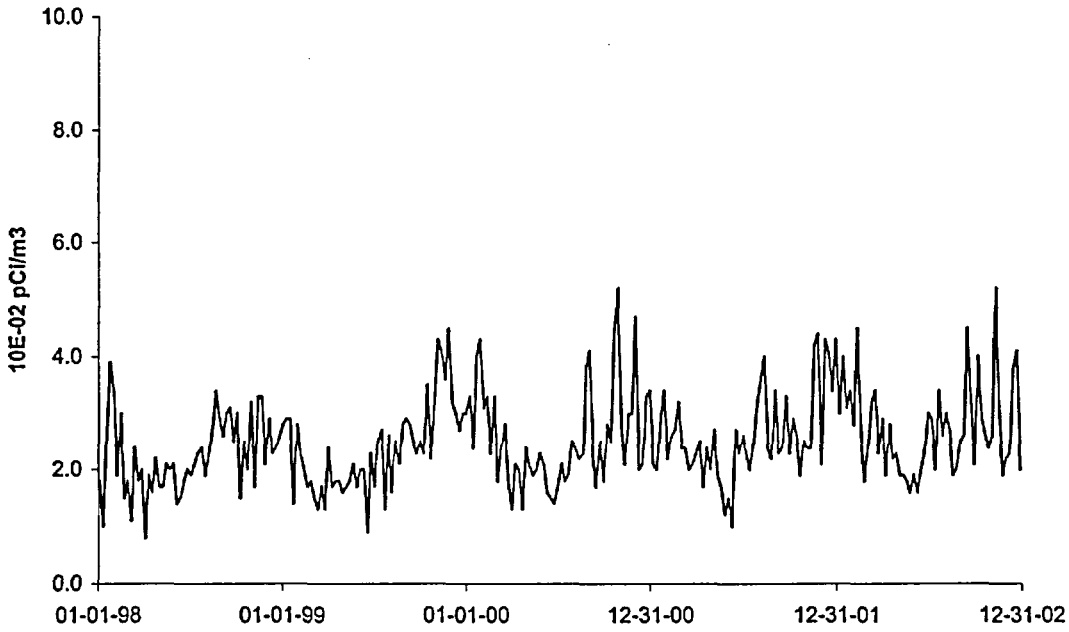

Figure 3. Continuous collection with weekly exchange of particulate filter.

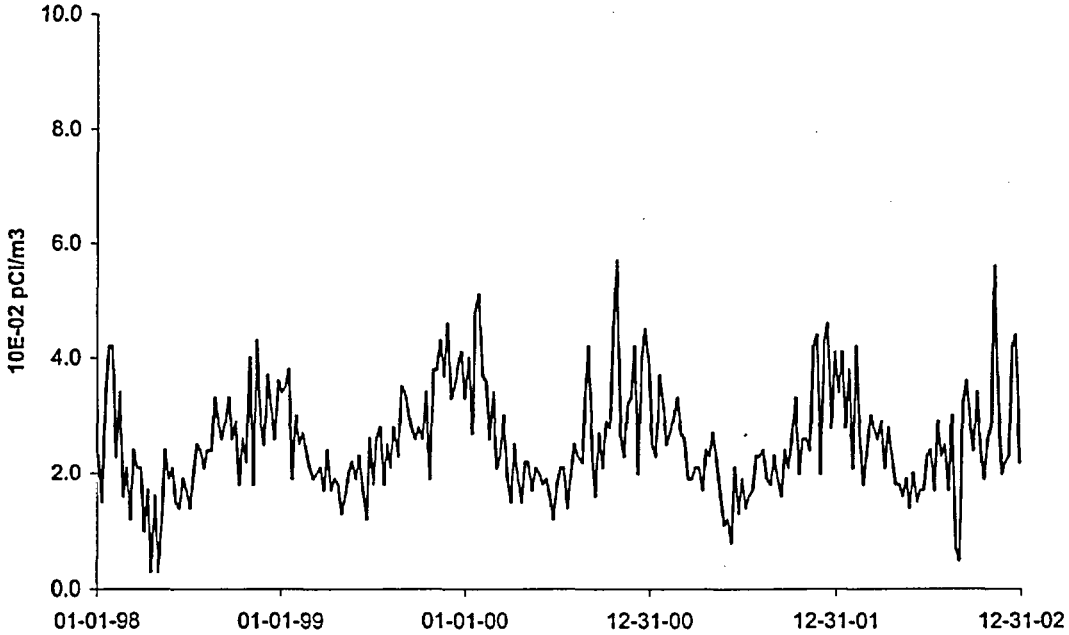

Figure 4. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

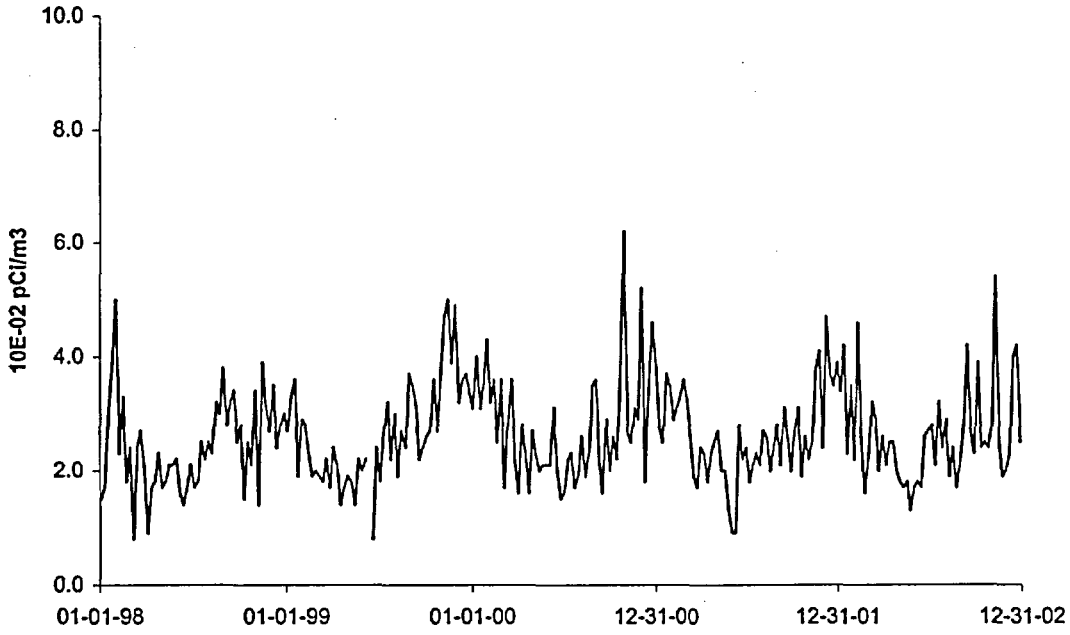

Figure 5. Continuous collection with weekly exchange of particulate filter.

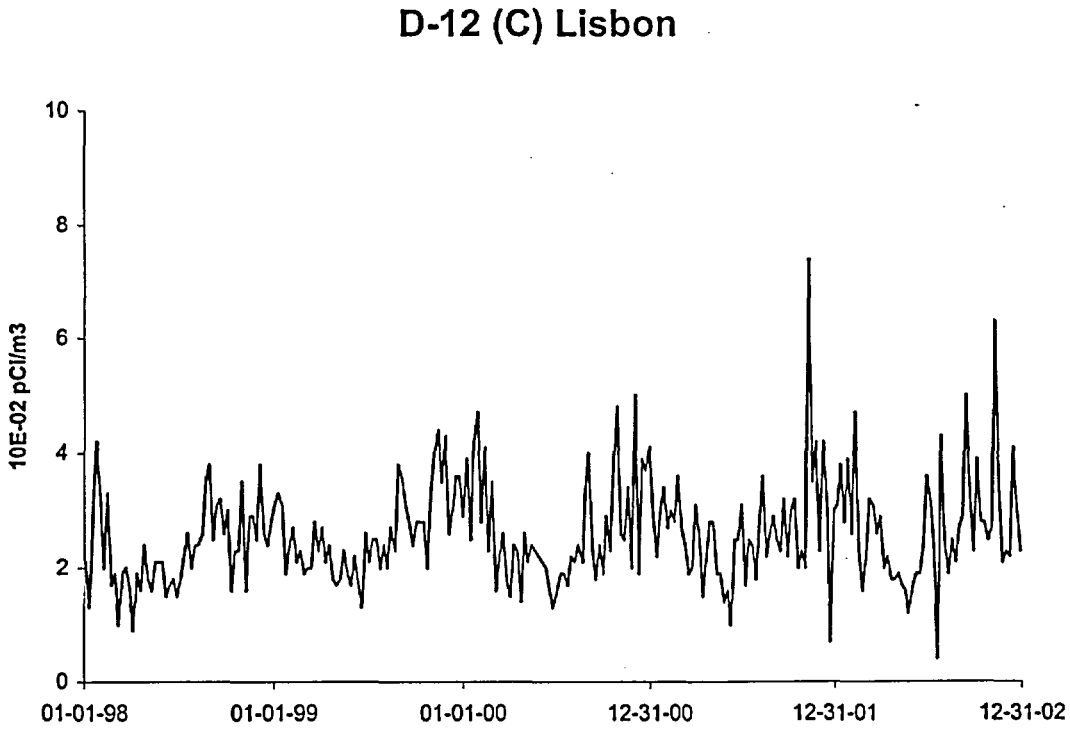

Figure 6. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

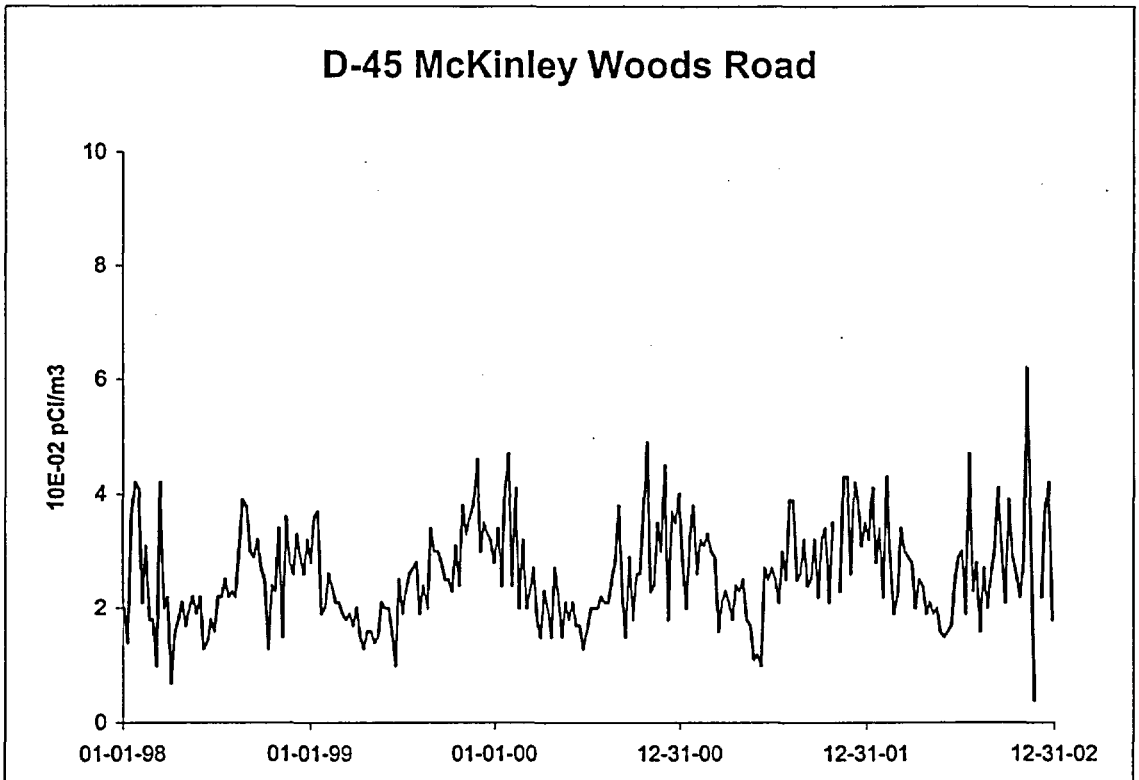

Figure 7. Continuous collection with weekly exchange of particulate filter.

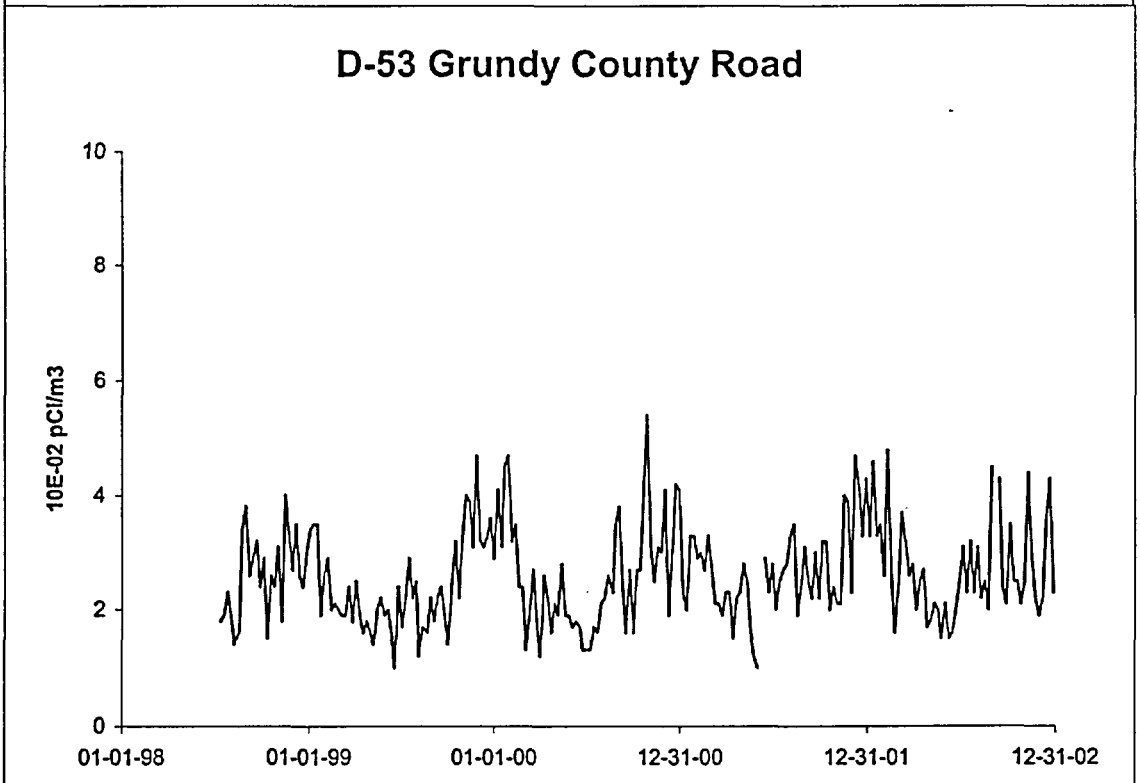

Figure 8. Continuous collection with weekly exchange of particulate filter.

Surface Water-Gross Beta

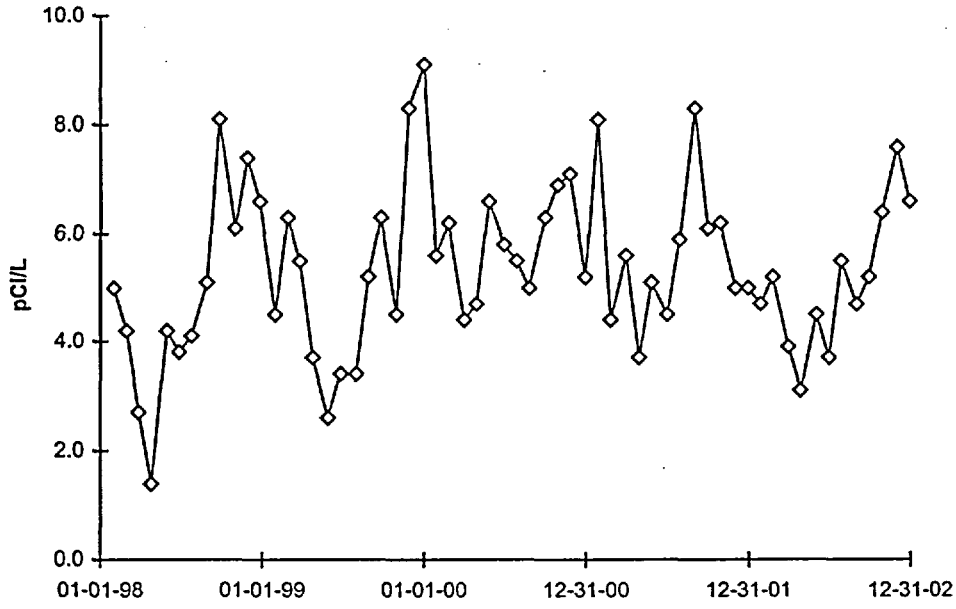

Figure 9. Monthly composite of weekly collections.

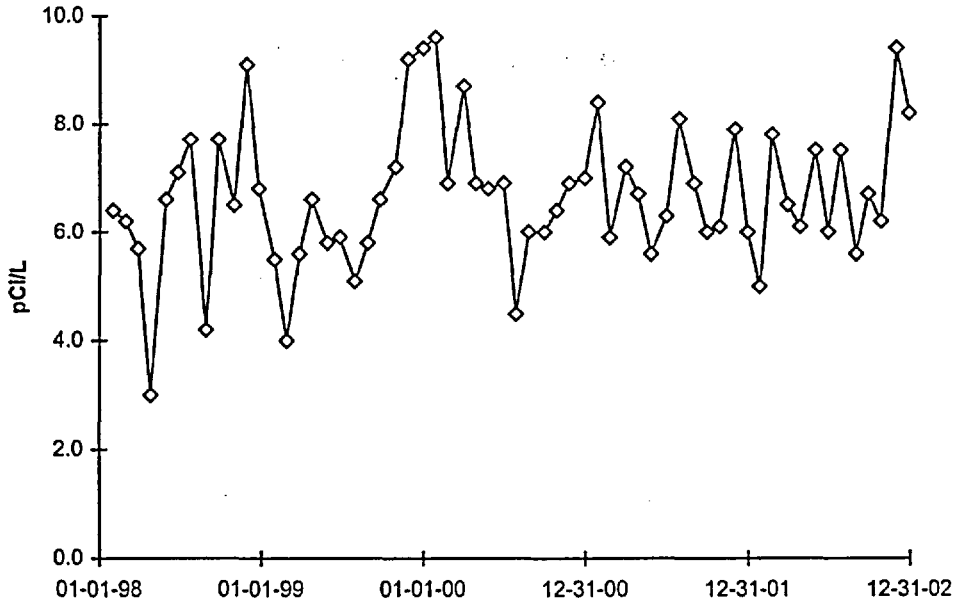

Figure 10. Monthly composite of weekly collection.

D-51 Dresden Lock & Dam

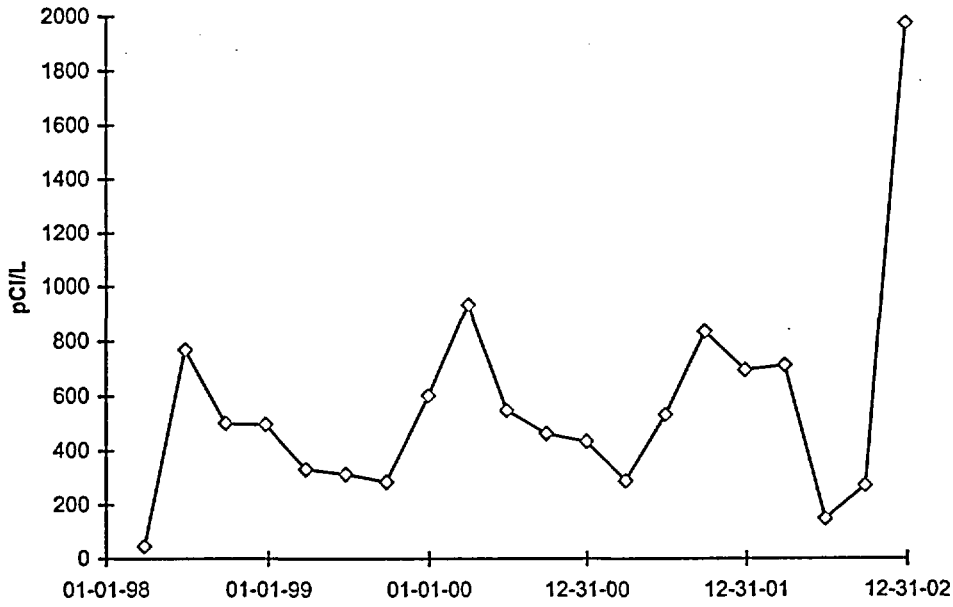

Figure 11. Quarterly composite of weekly collection.

D-52 Des Plaines River

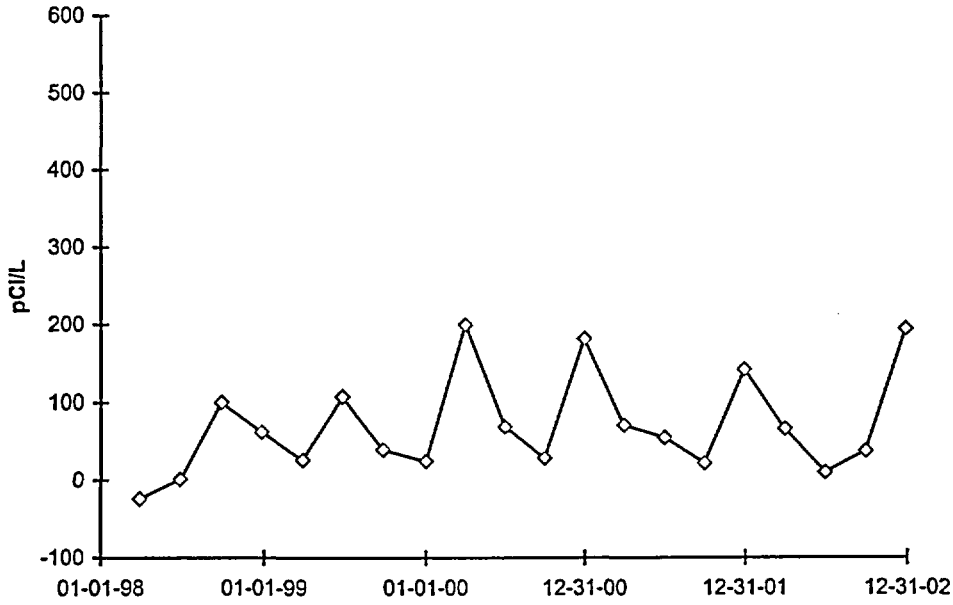

Figure 12. Quarterly composite of weekly collection.

Well Water-Tritium

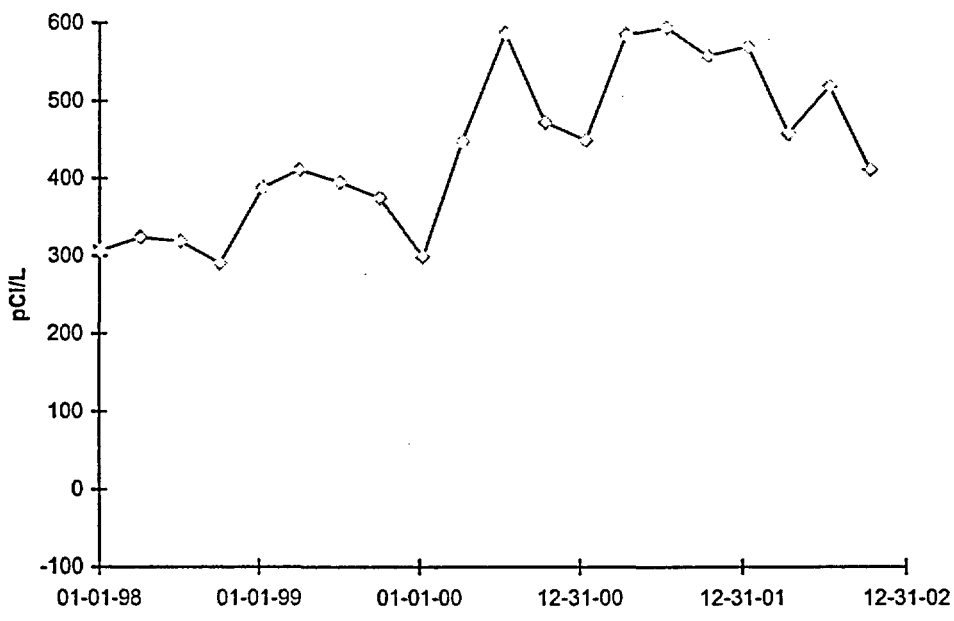

Figure 11. Quarterly collections.

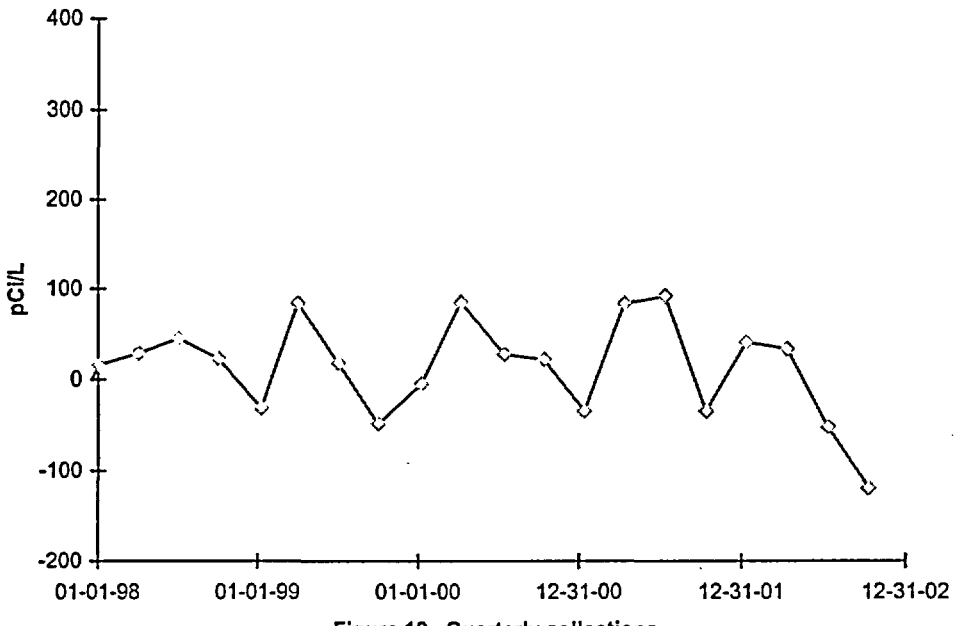

Figure 12. Quarterly collections.

DRESDEN

DREDGE SPOILS CENSUS DATA, 2002

Nearest dredging to station.

Sector	Direction	Distance	Site No.
A	N	0.4	5

Dresden Station: Special Sampling Points
Dredge Spoils
Analysis: Gamma Isotopic
Units: 10^{-02} pCi/g dry

Required LLDs: Mn-54 = 15; Fe-59 = 60; Co-58, 60 = 10; Zn-65 = 60; Zr/Nb-95 = 20; Cs-134 = 15; Cs-137 = 18; Ba/La-140 = 60 pCi/g dry

Location	D-S1 North Side Deep	D-S1 North Side Shallow	D-S2 East Side Deep	D-S2 East Side Shallow
Lab Code	CDSO-5546	CDSO-5547	CDSO-5548	CDSO-5549
Date Collected	8/23/2002	8/23/2002	8/23/2002	8/23/2002
Mn-54	-0.1 ± 1.4	0.0 ± 1.2	1.5 ± 2.2	-0.8 ± 1.2
Fe-59	0.7 ± 2.9	2.5 ± 2.6	7.5 ± 4.9	-0.6 ± 2.7
Co-58	-0.5 ± 1.2	0.3 ± 1.0	2.1 ± 1.9	-1.1 ± 1.0
Co-60	-0.3 ± 1.5	0.2 ± 1.6	3.3 ± 3.1	6.5 ± 3.2
Zn-65	-1.0 ± 3.4	-0.4 ± 2.8	-6.7 ± 6.2	-7.1 ± 3.4
Nb/Zr-95	-4.6 ± 1.6	-3.0 ± 1.3	-10.6 ± 2.3	-4.3 ± 1.4
Cs-134	1.8 ± 1.8	2.6 ± 1.5	3.7 ± 2.7	2.3 ± 1.7
Cs-137	24.0 ± 4.0	20.4 ± 3.5	21.9 ± 6.4	11.1 ± 3.1
Ba/La-140	3.6 ± 1.0	-0.3 ± 1.3	-3.5 ± 2.3	-3.2 ± 1.5

Location	Duplicate of 5549	D-T1 Deep	D-T1 Shallow	D-S3 South Side Shallow
Lab Code	CDSO-5550	CDSO-5551	CDSO-5552	CDSO-5553
Date Collected	8/23/2002	8/23/2002	8/23/2002	8/23/2002
Mn-54	1.2 ± 1.4	-1.1 ± 1.3	-0.3 ± 1.0	-2.5 ± 1.3
Fe-59	-7.7 ± 3.2	-1.2 ± 2.9	2.8 ± 2.2	-1.1 ± 3.0
Co-58	-0.5 ± 1.2	0.2 ± 1.1	-0.9 ± 1.0	-1.1 ± 1.1
Co-60	4.9 ± 2.3	1.6 ± 1.5	2.6 ± 1.6	1.3 ± 1.5
Zn-65	0.2 ± 3.1	0.8 ± 3.0	-5.0 ± 2.9	-1.6 ± 3.0
Nb/Zr-95	-5.1 ± 1.3	-4.9 ± 1.5	-4.1 ± 1.2	-5.9 ± 1.5
Cs-134	3.4 ± 1.9	0.7 ± 1.7	3.0 ± 1.2	4.4 ± 1.5
Cs-137	16.1 ± 3.6	24.0 ± 3.5	23.2 ± 2.8	22.3 ± 3.3
Ba/La-140	-3.5 ± 1.5	-5.8 ± 1.2	-4.2 ± 1.0	-2.4 ± 1.2

Location	D-S3 South Side Deep	D-S4 West Side Shallow	D-S4 West Side Deep
Lab Code	CDSO-5554	CDSO-5555	CDSO-5556
Date Collected	8/23/2002	8/23/2002	8/23/2002
Mn-54	1.5 ± 1.3	1.8 ± 1.1	1.3 ± 1.3
Fe-59	3.3 ± 2.5	5.1 ± 2.5	1.9 ± 2.6
Co-58	1.4 ± 1.1	0.8 ± 1.0	0.8 ± 1.1
Co-60	0.2 ± 1.8	1.8 ± 1.7	1.2 ± 1.7
Zn-65	0.5 ± 2.8	2.5 ± 3.1	-3.6 ± 3.1
Nb/Zr-95	-4.6 ± 1.5	-4.2 ± 1.3	-5.4 ± 1.5
Cs-134	3.4 ± 1.6	1.7 ± 1.5	5.4 ± 1.6
Cs-137	22.5 ± 3.2	21.1 ± 3.1	22.6 ± 3.3
Ba/La-140	-4.1 ± 1.1	-0.9 ± 1.2	-4.2 ± 1.3

APPENDIX IV

IINTERLABORATORY COMPARISON PROGRAM RESULTS

Appendix IV

Interlaboratory Comparison Program Results

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

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

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

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

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

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

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

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

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

Attachment A lists acceptance criteria for "spiked" samples.

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

Attachment A

ACCEPTANCE CRITERIA FOR "SPIKED" SAMPLES

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

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

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

[b] Laboratory limit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DRESDEN

APPENDIX V

ERRATA DATA

ERRATA DATA

Review 2001 Annual Radiological Environmental Operating Report (AREOR)

Airborne I-131 and particulate radioactivity (page 7), paragraph 2, lower range of gross beta activity is revised to read 0.8 pCi/m^3.

Aquatic activity (page 7), paragraph 2, lower range of gross beta results for location D-51 is revised to read 4.4 pCi/L.