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ComEd

April 28, 2000

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: 1999 Radiological Environmental Operating Report

Enclosed are two copies of the 1999 Radiological Environmental Operating Report for LaSalle Station, submitted in accordance with Technical Specification 6.6.A.3. This report contains the results of the Radiological Environmental and Meteorological Monitoring Programs. The Radioactive Effluent Release Report was submitted under separate cover.

Should you have any questions concerning this letter, please contact Mr. Frank A. Spangenberg, III, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,

Charles G. Pardee
Site Vice President
LaSalle County Station

Attachment

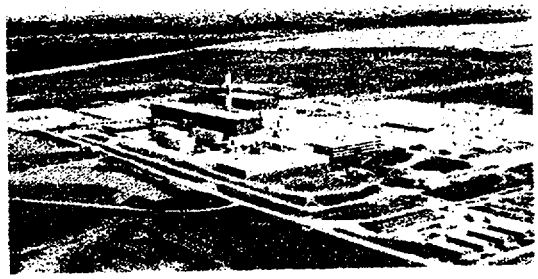
cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - LaSalle County Station

IE25

LASALLE COUNTY STATION

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

1999



APRIL 2000

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INTRODUCTION

LaSalle County Station, a two-unit BWR station is located near Marseilles, Illinois in LaSalle County, 3.5 miles south of the Illinois River. Each reactor is designed to have a capacity of 1078 MW net. Unit No. 1 loaded fuel in March 1982. Unit No. 2 loaded fuel in late December 1983. The station has been designed to keep releases to the environment at levels below those specified in the regulations.

Liquid effluents from LaSalle County Station 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 routine grab samples of noble gases as well as continuously collected composite samples of iodine and particulate radioactivity sampled during the course of the year. The results of effluent analyses are summarized on a monthly basis and reported to the Nuclear Regulatory Commission as required per Technical Specifications/Standards. Airborne concentrations of noble gases, I-131, and particulate radioactivity in offsite areas are calculated using effluent and meteorological data.

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

SUMMARY

Gaseous and liquid effluents for the period contributed to only a small fraction of the LaSalle County Technical Specification/Standards limits. Calculations of environmental concentrations based on effluent, Illinois River flow, and meteorological data for the period indicate that consumption by the public of radionuclides attributable to LaSalle County Station does not exceed regulatory limits. Radiation exposure from radionuclides released to the atmosphere represented the critical pathway for the period with a maximum individual total dose estimated to be 1.64E-02 mrem for the year. where a shielding and occupancy factor of 0.7 is assumed. The assessment of radiation doses is performed in accordance with the ComEd Offsite Dose Calculation Manual (ODCM). The results of analysis confirm that the station is operating in compliance with 10CFR50 Appendix I, 10CFR20 and 40CFR190.

1.0 EFFLUENTS

1.1 Gaseous Effluents to the Atmosphere

Measured concentrations of noble gases, radioiodine, and particulate radioactivity released to the atmosphere during the year, are listed in Table 1.1-1. A total of 1.62E+03 curies of fission and activation gases was released with a maximum quarterly average release rate of 7.81E+01 µCi/sec.

A total of 3.41E-02 curies of I-131 was released during the year with a maximum quarterly average release rate of 8.47E-04 µCi/sec.

A total of 1.27E-02 curies of beta-gamma emitters was released as airborne particulate matter with a maximum quarterly average release rate of 2.30E-03 µCi/sec. Alpha emitting radionuclides were not measurable.

A total of 4.44E+01 curies of tritium was released with a maximum quarterly average release rate of 2.86E+00 µCi/sec.

1.2 Liquids Released to Illinois River

There were no liquid releases at the station in 1999, as seen in Table 1.2-1.

2.0 SOLID RADIOACTIVE WASTE

Solid radioactive wastes were shipped by truck to Barnwell, South Carolina. For further detail, refer to the LaSalle 1999 Effluent Report.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

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

3.1.1 Noble Gases

3.1.1.1 Gamma Dose Rates

Unit 1 and Unit 2 gaseous releases at LaSalle County Station are reported as Unit 1 releases due to a single station vent stack (SVS) release point. Offsite Gamma air and whole body dose rates 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 meteorlogical data are shown in Table 3.4-1. Isodose contours based on concurrent meteorological data for gamma dose for the year are shown in Figure 3.1-1. Based on measured effluents and meteorological data, the maximum total body dose to an adult would be 1.64E-02 mrem (Table 3.1-1) for the year, with an occupancy or shielding factor of 0.7

included. The maximum total body dose based on measured effluents and concurrent meteorological data would be 1.61E-02 mrem. (Table 3.4-1).

The maximum gamma air dose was 2.17E-02 mrad (Table 3.1-1) and 3.30E-02 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.1.2 Beta Air and Skin 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 taken to have a thickness of 7.0 mg/cm^2 and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was 1.74E-02 mrem (Table 3.1-1) and 2.01E-02 mrem (Table 3.4-1) based on concurrent meteorological data. The maximum offsite beta air dose for the year was 9.21E-04 mrad (Table 3.1-1) and 3.51E-03 mrad (Table 3.4-1) based on concurrent meteorological data. The air concentrations of radioactive noble gases at the offsite receptor locations are given in Figure 3.1-2.

3.1.2 Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine. The radioiodine, I-131, released during routine operation of the plant, 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.

3.1.2.1 Iodine Concentrations in Air

The calculated concentration contours for iodine in air are shown in Figure 3.1-3. Included in these calculations is an iodine cloud depletion factor which accounts for the phenomenon of elemental iodine deposition on the ground. The maximum offsite concentration is estimated to be 7.98E-04 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 exposed individual to I-131 was the child with a dose less than 4.34E-02 mrem during the year.

3.1.3 Concentrations of Particulates in Air

Concentration contours of radioactive airborne particulates are shown in Figure 3.1-4. The maximum offsite average level is estimated to be 5.27E-05 pCi/m^3. (Table 3.4-1)

3.2 Liquid Effluent Pathways

The three principal pathways through the aquatic environment for potential doses to man from liquid waste are ingestion of potable water, eating aquatic foods, and exposure while on the shoreline. Not all of these pathways are applicable at a given time but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC-developed equations* were used to calculate the doses to the whole body, lower GI tracts, thyroid, bone, skin; specific parameters for use in the equations are given in the ComEd Offsite Dose Calculation Manual. The maximum whole body dose was 0.00 mrem and organ dose was 0.00 mrem for the year since there were no liquid releases during 1999 (Table 3.2-1).

3.3 Assessment of Dose to Member of Public

During the period January to December, 1999, LaSalle County Station did not exceed these limits as shown in Table 3.1-1 and Table 3.2-1 (based on yearly average meteorological data), and as shown in Figure 3.1-1 (based on concurrent meteorological data), and as shown in Table 3.3-1:

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

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

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

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

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

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 375' level and wind speed class by atmospheric stability class determined for the temperature difference between the 375' and 33' levels. Data recovery for these measurements was 99.9% during 1999 (Table 3.4-1)

5.0 ENVIRONMENTAL MONITORING

Table 5.0-1 provides an outline of the Radiological Environmental Monitoring Program (REMP) as required in the current Technical Standards. Tables 5.0-2 lists the program's sampling locations, collection frequencies and analyses for all samples collected. Tables 5.0-3 to 5.0-6 summarize data for the year. 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 $CaSO_4$:Tm thermoluminescent dosimeters (TLDs). Each location normally consists of 2 TLD sets. The quarterly average external radiation dose for the year was 17.7 mR at the indicator locations and 15.3 mR at the control locations. TLD results are listed in Table 4.0 of Appendix III and locations are shown in Figures 5.0-1 and 5.0-2.

Quarterly external radiation dose at indicator air sampling locations averaged 17.0 mR and is similar to levels measured in 1986 (17.1 mR), 1987 (17.8 mR), 1988 (16.5 mR), 1989 (17.6 mR), 1990 (17.8 mR), 1991 (17.7 mR), 1992 (15.5 mR), 1993 (14.5 mR), 1994 (15.4 mR), 1995 (15.3 mR), 1996 (15.9 mR) and 1997 (16.1 mR) and 1998 (17.0 mR). These differences are not statistically significant.

5.2 Airborne I-131 and Particulate Radioactivity

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

Gross beta concentrations ranged from 0.009 to 0.054 pCi/m^3 and averaged 0.027 pCi/m^3 and were similar to levels measured in 1985 (0.025 pCi/m^3), 1986 (0.027 pCi/m^3, except for the period from May 16 through June 6 when it was influenced by the nuclear reactor accident at Chernobyl), 1987 (0.027 pCi/m^3), 1988 (0.031 pCi/m^3), 1989 (0.028 pCi/m^3), 1990 (0.024 pCi/m^3), 1991 (0.022 pCi/m^3), 1992 (0.022 pCi/m^3),

1993 (0.022 pCi/m^3), 1994 (0.022 pCi/m^3), 1995 (0.021 pCi/m^3), 1996 (0.021 pCi/m^3) and 1997 (0.022 pCi/m^3) and 1998 (0.024 pCi/m^3).

Gamma isotopic results were below the LLD level of 0.01 pCi/m^3 in all quarterly composites.

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

5.3 Aquatic Radioactivity

Well water was collected quarterly from one onsite well and one offsite well and analyzed for tritium and gamma-emitting nuclides. All results were below the limits of detection, indicating that there was no measurable amount of radioactivity due to the Station's releases.

Weekly surface water samples from the Illinois River at Seneca and Illinois River Downstream were composited monthly and analyzed for gamma and beta-emitting nuclides. Weekly samples from the same locations were composited quarterly and analyzed for tritium. None of the composited samples indicated the presence of gamma-emitting nuclides above their respective LLD levels.

Gross beta activity averaged 6.5 pCi/L in the Illinois River at Seneca samples, with a range of 3.6-9.6 pCi/L. The Illinois River, Downstream sample averaged 5.4 pCi/L, with a range of 3.4-8.2 pCi/L.

Tritium activity in the quarterly upstream samples, Illinois River at Seneca, averaged 335 pCi/L with a maximum first quarter concentration of 482 pCi/L. In the Illinois River Downstream samples, tritium activity averaged 332 pCi/L with a maximum fourth quarter concentration of 567 pCi/L. These values are well below the reporting level of 30,000 pCi/L.

Sediment samples were collected twice a year from two indicator locations (Illinois River, Downstream) and analyzed for gamma-emitters. All gamma-emitters were below their respective detection limits in both samples. There are no adverse effects expected to the environment.

Levels of gamma radioactivity in fish were measured and found in all samples to be below the lower limit of detection for the program.

5.4 Milk

Milk samples were collected monthly from November through April and biweekly from May through October and analyzed for Iodine-131 and gamma-emitting nuclides.

I-131 remained below the detection limits of 0.5 pCi/L (May - October) and 5.0 pCi/L (November - April). Cs-134, Cs-137 and Ba/La-140 were below the LLD levels of 15, 18 and 15 pCi/L, respectively.

5.5 Terrestrial Radioactivity

Vegetables were collected in the third quarter and analyzed for gamma-emitting nuclides. In addition, broad leaf vegetables were analyzed for I-131. All nuclides were below the limits of detection, indicating there was no measurable amount of radioactivity attributable to the Station's releases.

5.6 Sample Collections

All samples were collected as scheduled except those listed in the Listing of Missed Samples, page 5, Appendix III.

5.7 Program Modifications

A new sediment location, L-41, was added to the program in May of 1999.

6.0 ANALYTICAL PROCEDURES

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

7.0 MILCH ANIMALS AND NEAREST LIVESTOCK CENSUS

A census of milch animals was conducted within a 6.2-mile radius of the Station. The survey was conducted by "door-to-door" canvas by A. Lewis on August 29, 1999. The nearest livestock census was conducted by A. Lewis on August 29, 1999. The results of each census are presented on pages 32 and 33 of Appendix III.

8.0 NEAREST RESIDENT CENSUS

A census of the nearest residences within a 6.2-mile radius was conducted by A. Lewis on August 29, 1999.

Results of the nearest residence census are presented on page 34 of Appendix III.

9.0 INTERLABORATORY COMPARISON PROGRAM RESULTS

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

10.0 ERRATA DATA

There is no errata data for 1999.

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

LASALLE COUNTY NUCLEAR POWER STATION
UNITS ONE AND TWO
DOCKET NUMBERS 50-373 AND 50-374

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (1999)

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

			First Quarter	Second Quarter	Estimated Total Error %
A.	Fission and Activation Gases				
1.	Total release	Ci	3.37E+01	5.40E+02	35%
2.	Average release rate for period	uCi/sec	4.34E+00	6.78E+01	
B.	Iodines				
1.	Total iodine-131	Ci	2.09E-04	2.24E-02	35%
2.	Average release rate for period	uCi/sec	2.71E-05	2.59E-04	
C.	Particulates				
1.	Particulates with T1/2 >8 days	Ci	3.20E-05	1.20E-02	33%
2.	Average release rate for period	uCi/sec	4.16E-06	2.30E-03	
3.	Gross alpha radioactivity (estimate)Ci		<1.00E-11	<1.00E-11	
D.	Tritium				
1.	Total release	Ci	3.44E+00	2.27E+01	21%
2.	Average release rate for period	uCi/sec	4.32E-01	2.86E+00	

			Third Quarter	Fourth Quarter	Estimated Total Error %
A.	Fission and Activation Gases				
1.	Total release	Ci	6.21E+02	4.23E+02	35%
2.	Average release rate for period	uCi/sec	7.81E+01	5.37E+01	
B.	Iodines				
1.	Total iodine-131	Ci	4.79E-03	6.67E-03	35%
2.	Average release rate for period	uCi/sec	6.02E-04	8.47E-04	
C.	Particulates				
1.	Particulates with T1/2 >8 days	Ci	4.64E-04	1.80E-04	33%
2.	Average release rate for period	uCi/sec	5.84E-05	2.29E-05	
3.	Gross alpha radioactivity (estimate)Ci		<1.00E-11	<1.00E-11	
D.	Tritium				
1.	Total release	Ci	9.85E+00	8.38E+00	21%
2.	Average release rate for period	uCi/sec	1.24E+00	1.07E+00	

"<" indicates activity of sample is less than LLD given in uci/ml

Table 1.2-1

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (1999)

UNIT ONE

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

			First Quarter	Second Quarter	ESTIMATED TOTAL ERROR%
A.	Fission and Activation Products				
1.	Total release (not including tritium, gases, alpha)	Ci	0.00E+00	0.00E+00	26%
2.	Average concentration released	uCi/ml	0.00E+00	0.00E+00	
3.	Maximum concentration released	uCi/ml	N/A	N/A	
B.	Tritium				
1.	Total release	Ci	0.00E+00	0.00E+00	12%
2.	Average concentration released	uCi/ml	N/A	N/A	
C.	Dissolved Noble Gases				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
D.	Gross Alpha Radioactivity				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
E.	Volume of Waste Released (prior to dilution)	liters	0.00E+00	0.00E+00	2%
F.	Volume of Dilution Water	liters	0.00E+00	0.00E+00	5%

			Third Quarter	Fourth Quarter	ESTIMATED TOTAL ERROR%
A.	Fission and Activation Products				
1.	Total release (not including tritium, gases, alpha)	Ci	0.00E+00	0.00E+00	26%
2.	Average concentration released	uCi/ml	N/A	N/A	
3.	Maximum concentration released	uCi/ml	N/A	N/A	
B.	Tritium				
1.	Total release	Ci	0.00E+00	0.00E+00	12%
2.	Average concentration released	uCi/ml	N/A	N/A	
C.	Dissolved Noble Gases				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
D.	Gross Alpha Radioactivity				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
E.	Volume of Waste Released (prior to dilution)	liters	0.00E+00	0.00E+00	2%
F.	Volume of Dilution Water	liters	0.00E+00	0.00E+00	5%

"<" indicates activity of sample is less than LLD given uci/ml

Table 1.2-1 (continued)

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (1999)

UNIT TWO

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

			First Quarter	Second Quarter	Estimated Total Error%
A.	Fission and Activation Products				
1.	Total release (not including tritium, gases, alpha)	Ci	0.00E+00	0.00E+00	
2.	Average concentration released	uCi/ml	N/A	N/A	26%
3.	Maximum concentration released	uCi/ml	N/A	N/A	
B.	Tritium				
1.	Total release	Ci	0.00E+00	0.00E+00	
2.	Average concentration released	uCi/ml	N/A	N/A	12%
C.	Dissolved Noble Gases				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
D.	Gross Alpha Radioactivity				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
E.	Volume of Waste Released	liters	0.00E+00	0.00E+00	2%
F.	Volume of Dilution Water	liters	0.00E+00	0.00E+00	5%

			Third Quarter	Fourth Quarter	Estimated Total Error%
A.	Fission and Activation Products				
1.	Total release (not including tritium, gases, alpha)	Ci	0.00E+00	0.00E+00	26%
2.	Average concentration released	uCi/ml	N/A	N/A	
3.	Maximum concentration released	uCi/ml	N/A	N/A	
B.	Tritium				
1.	Total release	Ci	0.00E+00	0.00E+00	
2.	Average concentration released	uCi/ml	N/A	N/A	10%
C.	Dissolved Noble Gases				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
D.	Gross Alpha Radioactivity				
1.	Total release	Ci	0.00E+00	0.00E+00	N/A
2.	Average concentration released	uCi/ml	N/A	N/A	
E.	Volume of Waste Released	liters	0.00E+00	0.00E+00	2%
F.	Volume of Dilution Water	liters	0.00E+00	0.00E+00	5%

"<" indicates activity of sample is less than LLD given uci/ml

TABLE 2.0-1

Table 2.0-1 has been deliberately deleted. For Solid Waste Disposal detail, refer to LaSalle County Station 1999 Annual Effluent Report.

Figure 3.1-1

Estimated Cumulative Gamma Dose (in mrem) from the LaSalle Station for the period January-December 1999

Isopleth Labels
Small figure - multiply by 10^{-4}
Large figure - multiply by 10^{-6}

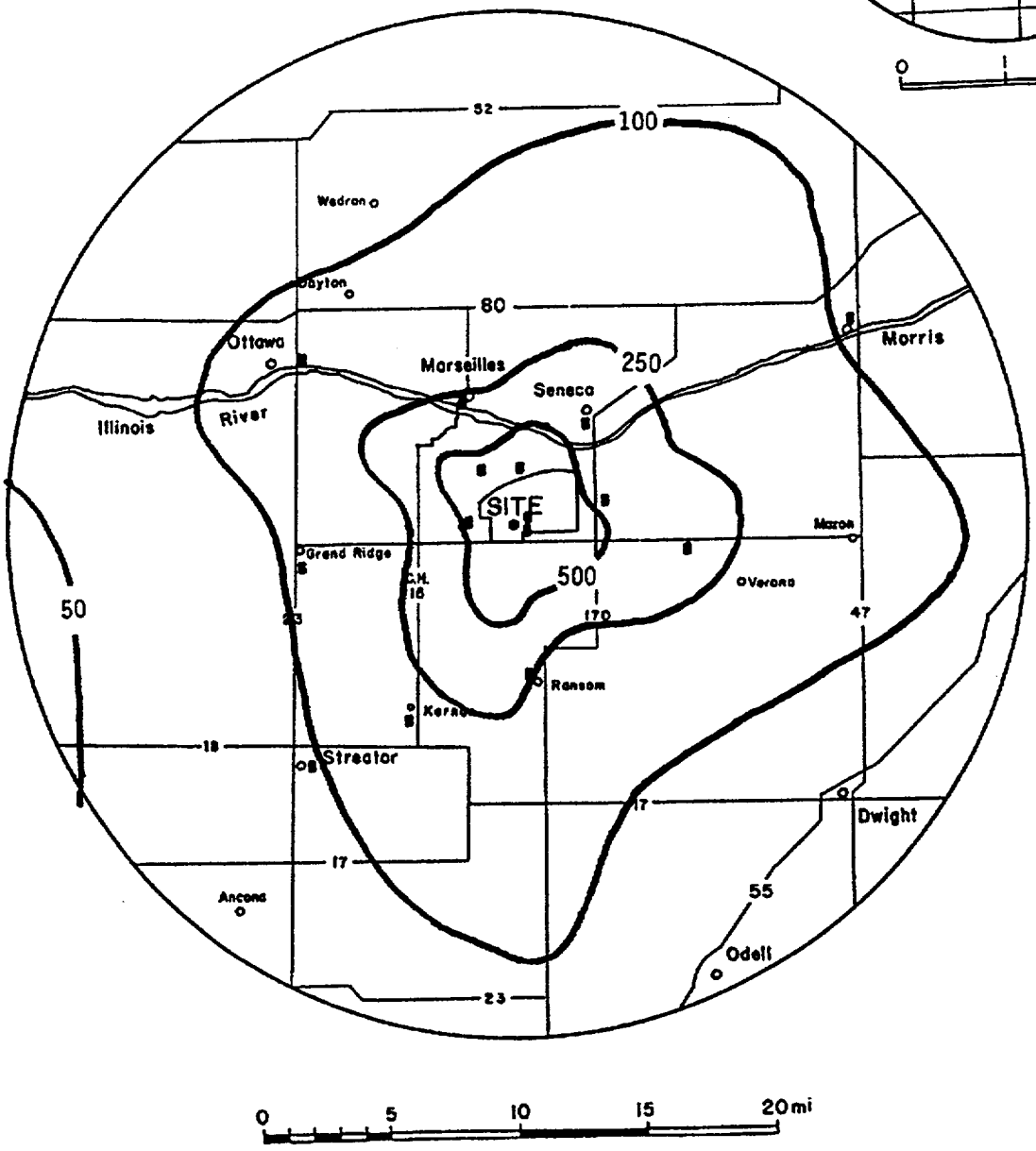
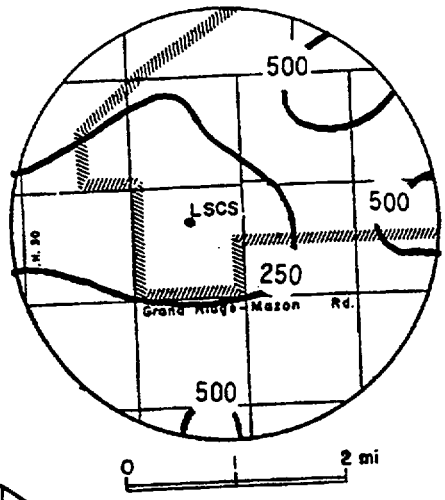


Figure 3.1-2

Estimated Total Concentrations (in pCi/m3)
of Noble Gases from the LaSalle Station
for the period January-December 1999

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



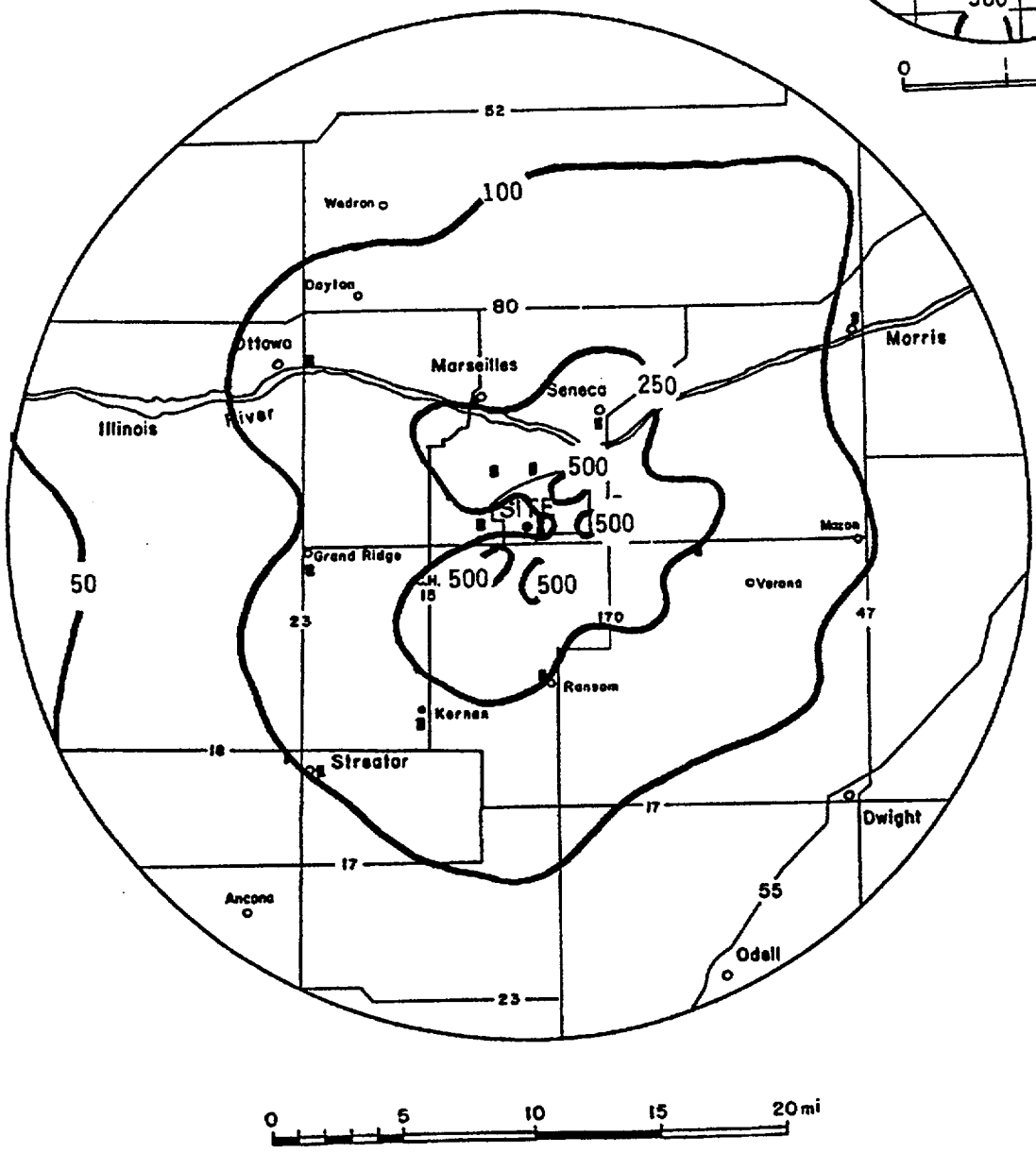


Figure 3.1-3

Estimated Total Concentrations (in pCi/m3)
of Iodines from the LaSalle Station for
the period January-December 1999

Isopleth Labels
Small figure - multiply by 10^{-5}
Large figure - multiply by 10^{-6}

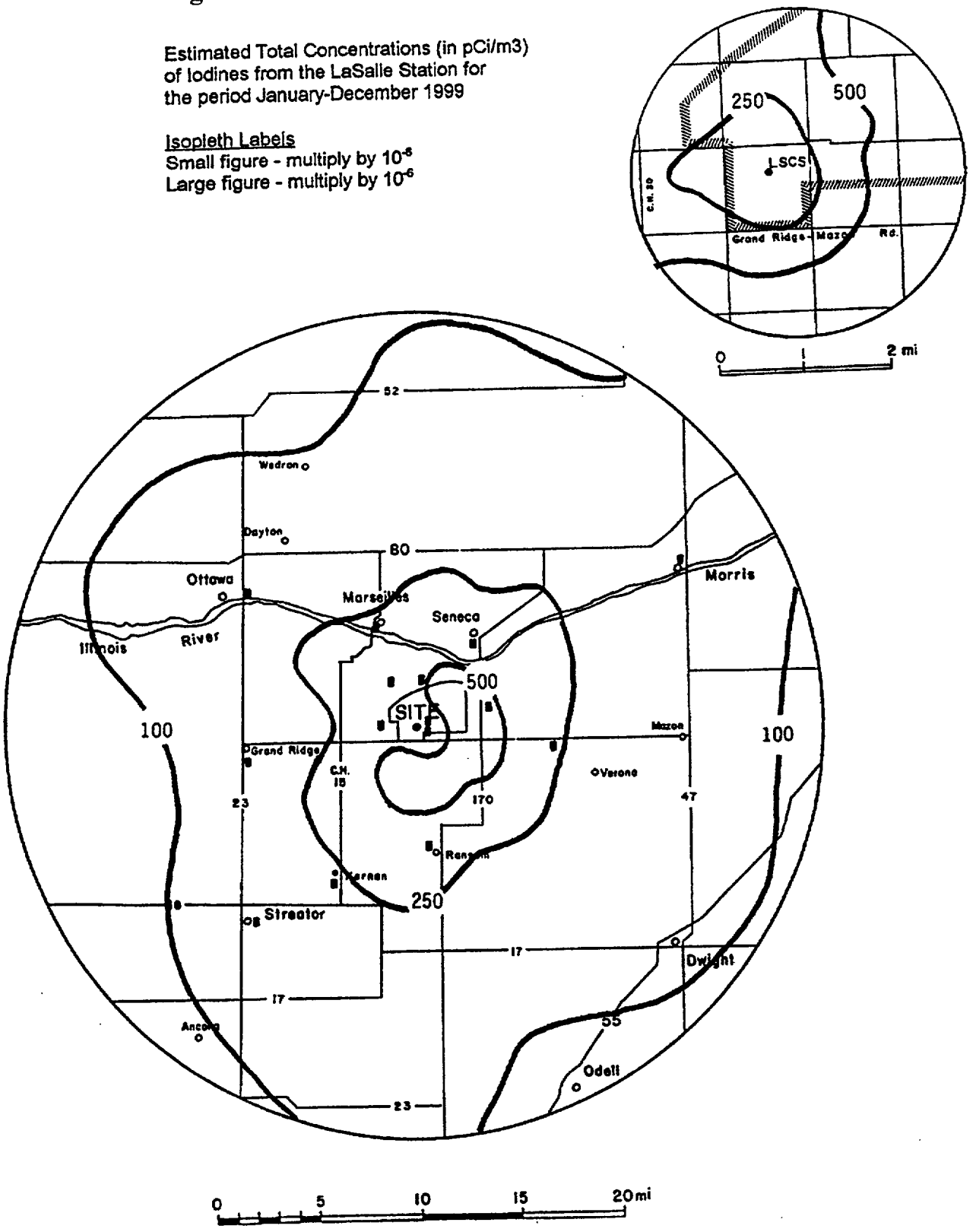
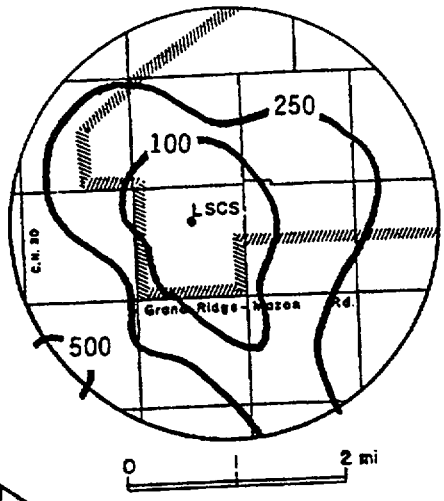


Figure 3.1-4

Estimated Total Concentrations (in pCi/m3)
of Particulates from the LaSalle Station
for the period January-December 1999

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



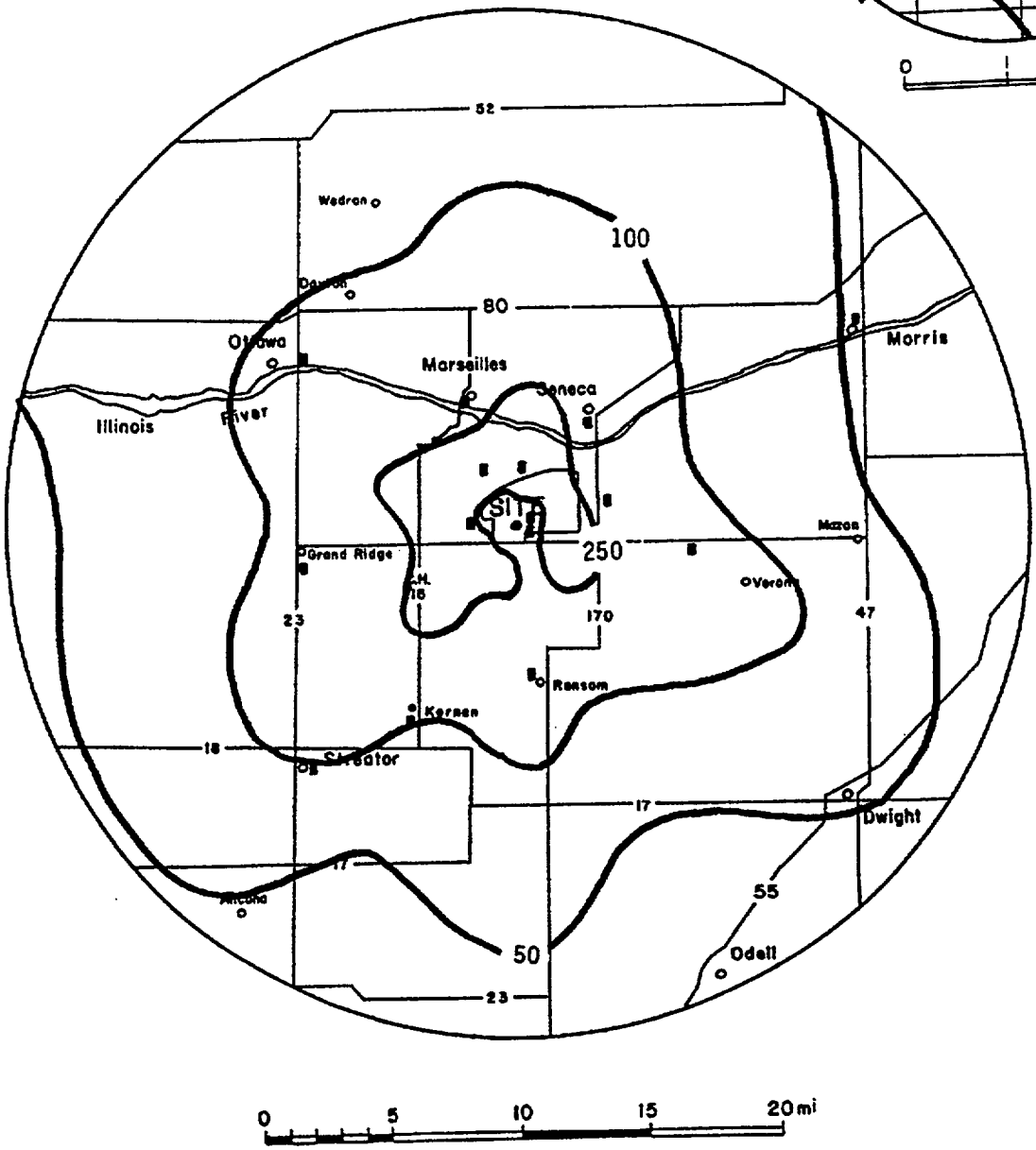


Table 3.1-1

LASALLE STATION UNIT ONE

ACTUAL 1999
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/99 TO 12/31/99 CALCULATED 01/05/00
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	7.78E-04	4.99E-03	9.41E-03	6.53E-03	2.17E-02
(MRAD)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
BETA AIR	2.56E-05	2.53E-04	3.79E-04	2.63E-04	9.21E-04
(MRAD)	(ESE)	(ESE)	(ESE)	(ESE)	(ESE)
TOT. BODY	5.88E-04	3.77E-03	7.11E-03	4.94E-03	1.64E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
SKIN	6.20E-04	4.00E-03	7.52E-03	5.22E-03	1.74E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
ORGAN	3.25E-04	1.15E-02	1.28E-02	5.61E-03	3.02E-02
(MREM)	(ESE)	(NNE)	(ESE)	(ESE)	(ESE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1999

COMPLIANCE STATUS - 10CFR 50 APP. I
INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % OF APP I. ----------					
GAMMA AIR (MRAD)	5.0	0.02	0.10	0.19	0.13	10.0	0.22
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.02	0.15	0.28	0.20	5.0	0.33
SKIN (MREM)	7.5	0.01	0.05	0.10	0.07	15.0	0.12
ORGAN (MREM)	7.5	0.00	0.15	0.17	0.07	15.0	0.20
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 1999
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/99 TO 12/31/99 CALCULATED 01/05/00
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	7.78E-04 (WSW)	4.99E-03 (WSW)	9.41E-03 (WSW)	6.53E-03 (WSW)	2.17E-02 (WSW)
BETA AIR (MRAD)	2.56E-05 (ESE)	2.53E-04 (ESE)	3.79E-04 (ESE)	2.63E-04 (ESE)	9.21E-04 (ESE)
TOT. BODY (MREM)	5.88E-04 (WSW)	3.77E-03 (WSW)	7.11E-03 (WSW)	4.94E-03 (WSW)	1.64E-02 (WSW)
SKIN (MREM)	6.20E-04 (WSW)	4.00E-03 (WSW)	7.52E-03 (WSW)	5.22E-03 (WSW)	1.74E-02 (WSW)
ORGAN (MREM)	2.70E-04 (NNE)	2.00E-02 (NNE)	1.67E-02 (NNE)	6.44E-03 (NNE)	4.34E-02 (NNE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1999

COMPLIANCE STATUS - 10CFR 50 APP. I
CHILD RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
GAMMA AIR (I	5.0	0.02	0.10	0.19	0.13	10.0	0.22
BETA AIR (MR	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (M	2.5	0.02	0.15	0.28	0.20	5.0	0.33
SKIN (MREM)	7.5	0.01	0.05	0.10	0.07	15.0	0.12
ORGAN (MREM)	7.5	0.00	0.27	0.22	0.09	15.0	0.29
		THYROID	THYROID	THYROID	THYROID		THYROID

RESUL TED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 1999
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/99 TO 12/31/99 CALCULATED 01/05/00
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	7.78E-04	4.99E-03	9.41E-03	6.53E-03	2.17E-02
(MRAD)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
BETA AIR	2.56E-05	2.53E-04	3.79E-04	2.63E-04	9.21E-04
(MRAD)	(ESE)	(ESE)	(ESE)	(ESE)	(ESE)
TOT. BODY	5.88E-04	3.77E-03	7.11E-03	4.94E-03	1.64E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
SKIN	6.20E-04	4.00E-03	7.52E-03	5.22E-03	1.74E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
ORGAN	1.97E-04	1.62E-02	1.05E-02	4.06E-03	3.07E-02
(MREM)	(NNE)	(NNE)	(NNE)	(NNE)	(NNE)
	THYROID	GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1999

COMPLIANCE STATUS - 10CFR 50 APP. I
TEENAGER RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP 1. ----------						
GAMMA AIR (MRAD)	5.0	0.02	0.10	0.19	0.13	10.0	0.22
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.02	0.15	0.28	0.20	5.0	0.33
SKIN (MREM)	7.5	0.01	0.05	0.10	0.07	15.0	0.12
ORGAN (MREM)	7.5	0.00	0.22	0.14	0.05	15.0	0.20
		THYROID	GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 1999
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/99 TO 12/31/99 CALCULATED 01/05/00
ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	7.78E-04	4.99E-03	9.41E-03	6.53E-03	2.17E-02
(MRAD)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
BETA AIR	2.56E-05	2.53E-04	3.79E-04	2.63E-04	9.21E-04
(MRAD)	(ESE)	(ESE)	(ESE)	(ESE)	(ESE)
TOT. BODY	5.88E-04	3.77E-03	7.11E-03	4.94E-03	1.64E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
SKIN	6.20E-04	4.00E-03	7.52E-03	5.22E-03	1.74E-02
(MREM)	(WSW)	(WSW)	(WSW)	(WSW)	(WSW)
ORGAN	2.22E-04	1.58E-02	1.05E-02	4.16E-03	3.05E-02
(MREM)	(NNE)	(NNE)	(NNE)	(NNE)	(NNE)
	THYROID	GI_LLI	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1999

COMPLIANCE STATUS - 10CFR 50 APP. I
ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
		---------- % OF APP I. ----------					
GAMMA AIR (MRAD)	5.0	0.02	0.10	0.19	0.13	10.0	0.22
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.02	0.15	0.28	0.20	5.0	0.33
SKIN (MREM)	7.5	0.01	0.05	0.10	0.07	15.0	0.12
ORGAN (MREM)	7.5	0.00	0.21	0.14	0.06	15.0	0.20
		THYROID	GI_LLI	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

TABLE 3.2-1

Table 3.2-1 has been deliberately deleted. There were no liquid releases for LaSalle in 1999.

Table 3.3-1

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/99 TO 12/31/99

CALCULATED 01/05/00

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

Total Effective Dose Eqivalent, mrem/yr 3.08E-01

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

% of limit 0.31

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	1.41E-01	2.84E-02	8.26E-02	5.62E-02	0.31

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/99 TO 12/31/99

CALCULATED 01/05/00

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	1.64E-02		
	Skyshine	2.75E-01		
	Ground	9.11E-03		
	Total	3.01E-01	25.0	1.20
Organ Dose (CDE)	Thyroid	1.75E-02	75.0	0.02
	Gonads	7.22E-03	25.0	0.03
	Breast	6.96E-03	25.0	0.03
	Lung	6.97E-03	25.0	0.03
	Marrow	7.01E-03	25.0	0.03
	Bone	6.92E-03	25.0	0.03
	Remainder	7.64E-03	25.0	0.03
	CEDE	7.55E-03		
	TEDE	3.08E-01	100.0	0.31

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/99 TO 12/31/99

CALCULATED 01/05/00

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

Total Effective Dose Eqivalent, mrem/yr 8.35E-02

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

% of limit 0.08

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	0.00E+00	6.61E-03	3.64E-02	4.06E-02	0.08

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/99 TO 12/31/99

CALCULATED 01/05/00

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	0.00E+00		
	Skyshine	8.35E-02		
	Ground	0.00E+00		
	Total	8.35E-02	25.0	0.33
Organ Dose (CDE)	Thyroid	0.00E+00	75.0	0.00
	Gonads	0.00E+00	25.0	0.00
	Breast	0.00E+00	25.0	0.00
	Lung	0.00E+00	25.0	0.00
	Marrow	0.00E+00	25.0	0.00
	Bone	0.00E+00	25.0	0.00
	Remainder	0.00E+00	25.0	0.00
	CEDE	0.00E+00		
	TEDE	8.35E-02	100.0	0.08

RESULTS BASED UPON: ODCM ANNEX REVISION 1.7 SEPTEMBER 1995
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.4-1

LASALLE STATION - UNIT 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE: October 1 - December 31 YEAR: 1999

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	3.770E-03(SE)	3.770E-03(SE)	8.350E-03(SW)	4.315E-03(WNW)	7.100E-04(WSW)	1.652E-02(SW)
BETA AIR (mrad)	4.665E-04(SE)	4.665E-04(SE)	8.600E-04(NE)	5.500E-04(SW)	5.600E-05(SE)	1.753E-03(SW)
WHOLE BODY (mrem)	1.840E-03(SSW)	1.840E-03(SSW)	3.435E-03(SSW)	4.300E-03(SW)	2.645E-04(SSW)	8.044E-03(SW)
SKIN (mrem)	2.165E-03(SSW)	2.165E-03(SSW)	4.055E-03(SSW)	5.250E-03(SW)	3.085E-04(SSW)	1.007E-02(SW)
ORGAN (mrem)	2.310E-04(SE)	2.310E-04(SE)	8.350E-05(NE)	2.100E-04(SW)	3.240E-06(SE)	4.584E-04(SW)
CRITICAL PERS-ORG	CH-TH	CH-TH	CH-TH	CH-TH	CH-TH	CH-TH

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	.08	10.0	.17
BETA AIR (mrad)	10.0	.00	20.0	.01
WHOLE BODY (mrem)	2.5	.07	5.0	.16
SKIN (mrem)	7.5	.03	15.0	.07
ORGAN (mrem)	7.5	.00	15.0	.00
CRITICAL PERSON-ORGAN		(CH-TH)		(CH-TH)

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

Date of calculation: 3/29/2000

Table 3.4-1 (continued)

LASALLE STATION - UNIT 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

CURRENT PERIOD OF RELEASE: October 1 - December 31 YEAR: 1999

TYPE OF DOSE	CURRENT PERIOD	CURRENT QUARTER	THIRD QUARTER	SECOND QUARTER	FIRST QUARTER	ANNUAL
GAMMA AIR (mrad)	3.770E-03(SE)	3.770E-03(SE)	8.350E-03(SW)	4.315E-03(WNW)	7.100E-04(WSW)	1.652E-02(SW)
BETA AIR (mrad)	4.665E-04(SE)	4.665E-04(SE)	8.600E-04(NE)	5.500E-04(SW)	5.600E-05(SE)	1.753E-03(SW)
WHOLE BODY (mrem)	1.840E-03(SSW)	1.840E-03(SSW)	3.435E-03(SSW)	4.300E-03(SW)	2.645E-04(SSW)	8.044E-03(SW)
SKIN (mrem)	2.165E-03(SSW)	2.165E-03(SSW)	4.055E-03(SSW)	5.250E-03(SW)	3.085E-04(SSW)	1.007E-02(SW)
ORGAN (mrem)	2.310E-04(SE)	2.310E-04(SE)	8.350E-05(NE)	2.100E-04(SW)	3.240E-06(SE)	4.584E-04(SW)
CRITICAL PERS-ORG	CH-TH	CH-TH	CH-TH	CH-TH	CH-TH	CH-TH

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	.08	10.0	.17
BETA AIR (mrad)	10.0	.00	20.0	.01
WHOLE BODY (mrem)	2.5	.07	5.0	.16
SKIN (mrem)	7.5	.03	15.0	.07
ORGAN (mrem)	7.5	.00	15.0	.00
CRITICAL PERSON-ORGAN		(CH-TH)		(CH-TH)

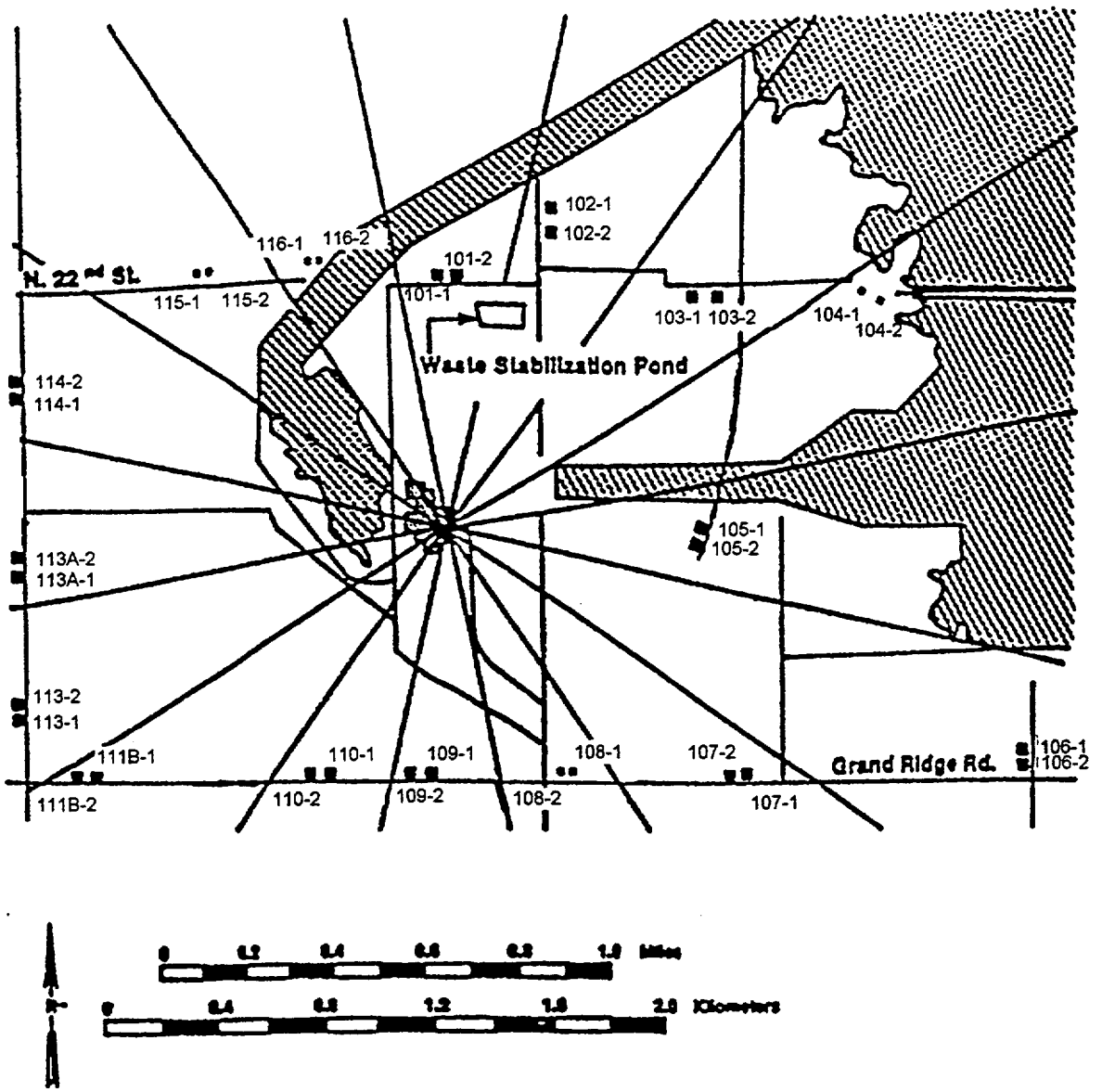
CRITICAL ORGANS: BN=BONE, LV=LIVER, TB=TOTAL BODY, TH=THYROID, KD=KIDNEY, LN=LUNG, GI=GI-LLI
CRITICAL PERSON: AD=ADULT, TA=TEENAGER, CH=CHILD, IN=INFANT

Date of calculation: 3/29/2000

Maximum Offsite
Values (pCi/m3)

Iodine	7.98E-04
Particulate Matter	5.27E-05
Data Recovery (priority parameters)	99.9%

Figure 5.0-1



LASALLE COUNTY STATION
INNER RING TLD LOCATIONS

Figure 5.0-2

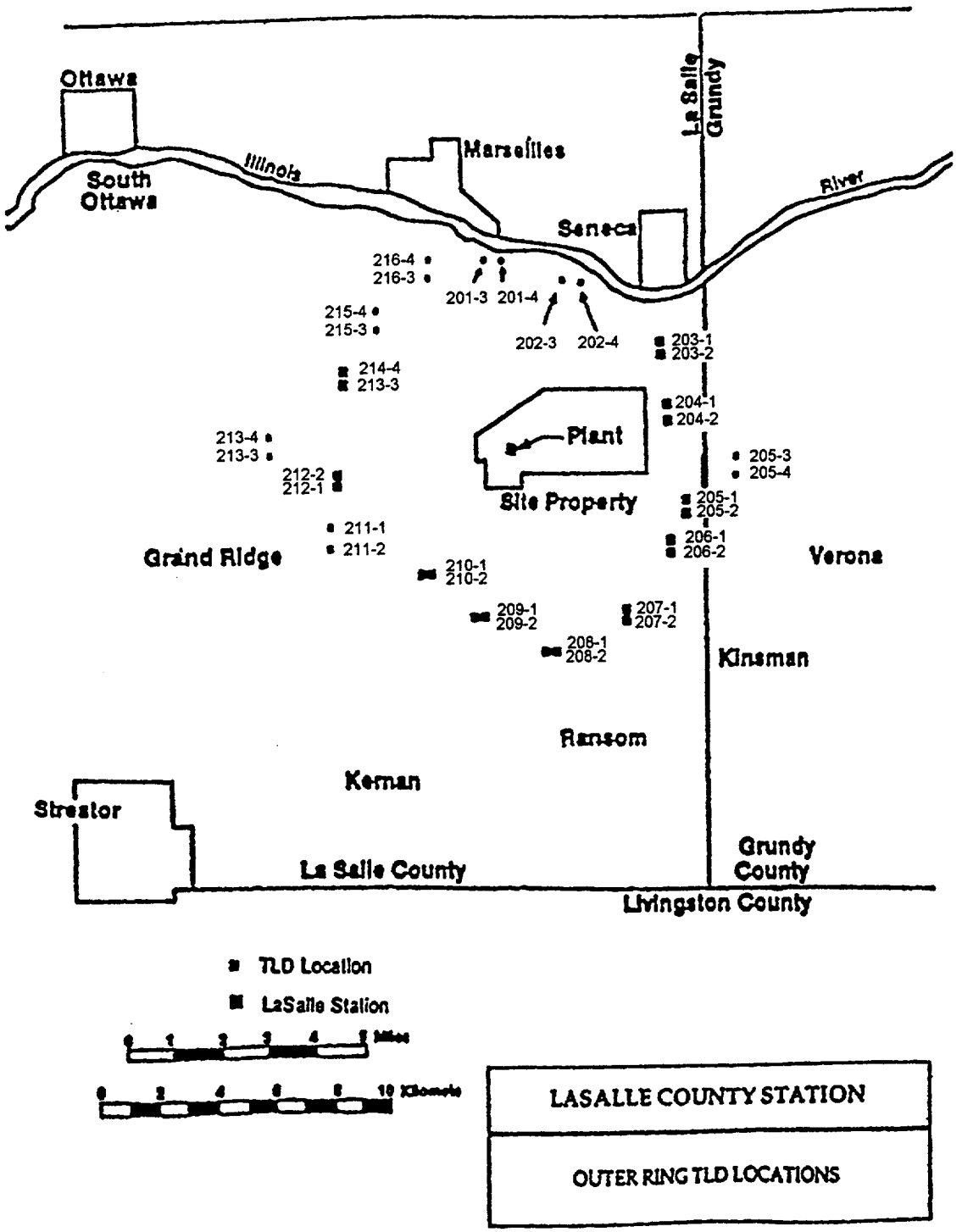

Ottawa
South Ottawa
Illinois
Marseilles
La Salle
Grundy
River
Seneca
216-4
216-3
201-3
201-4
215-4
215-3
202-3
202-4
203-1
203-2
214-4
213-3
204-1
204-2
213-4
213-3
Plant
Site Property
205-3
205-4
212-2
212-1
205-1
205-2
211-1
211-2
206-1
206-2
Grand Ridge
Verona
210-1
210-2
209-1
209-2
207-1
207-2
208-1
208-2
Kinsman
Ransom
Kerman
Streator
La Salle County
Grundy County
Livingston County
TLD Location
LaSalle Station
LASALLE COUNTY STATION
OUTER RING TLD LOCATIONS

Figure 5.0-3

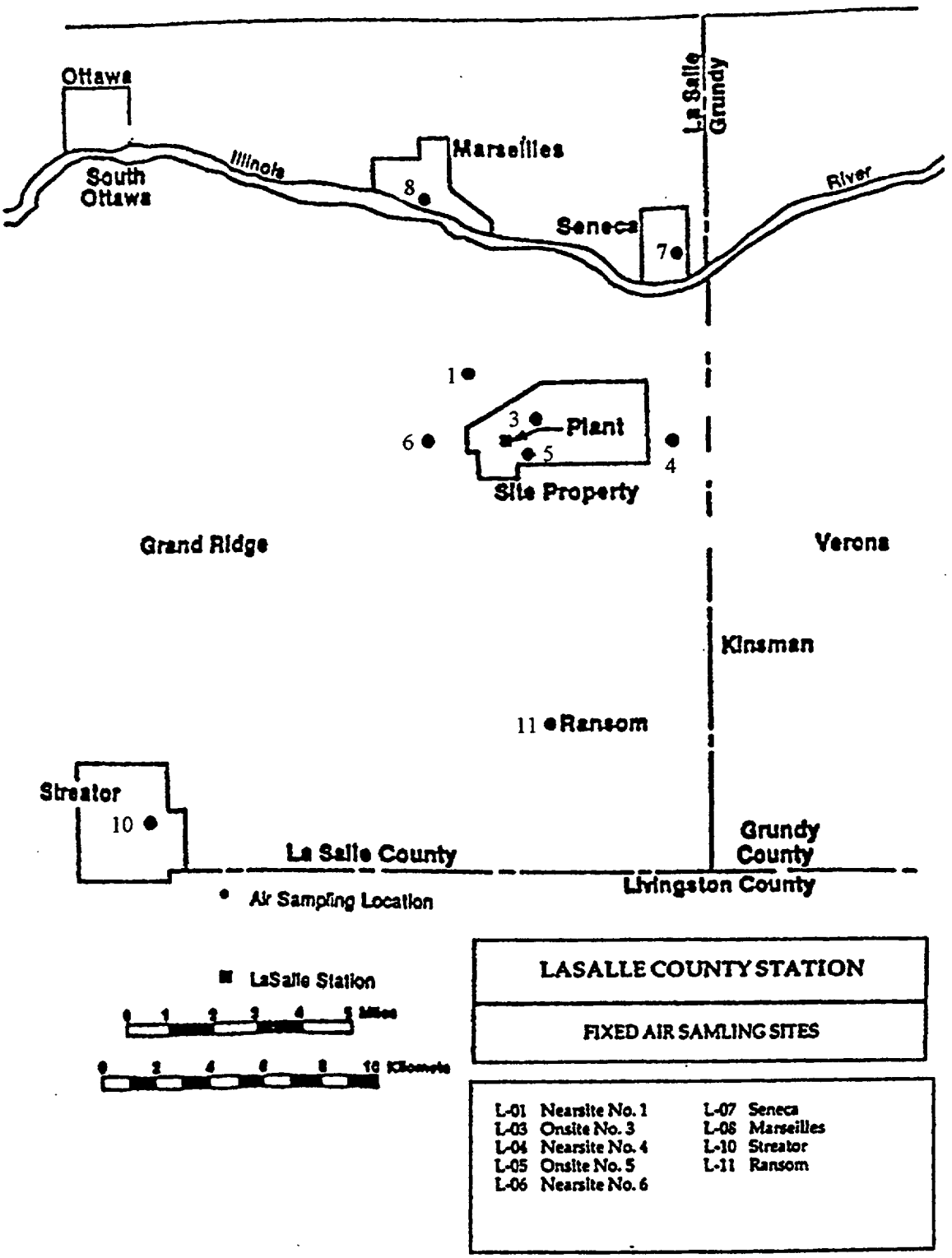
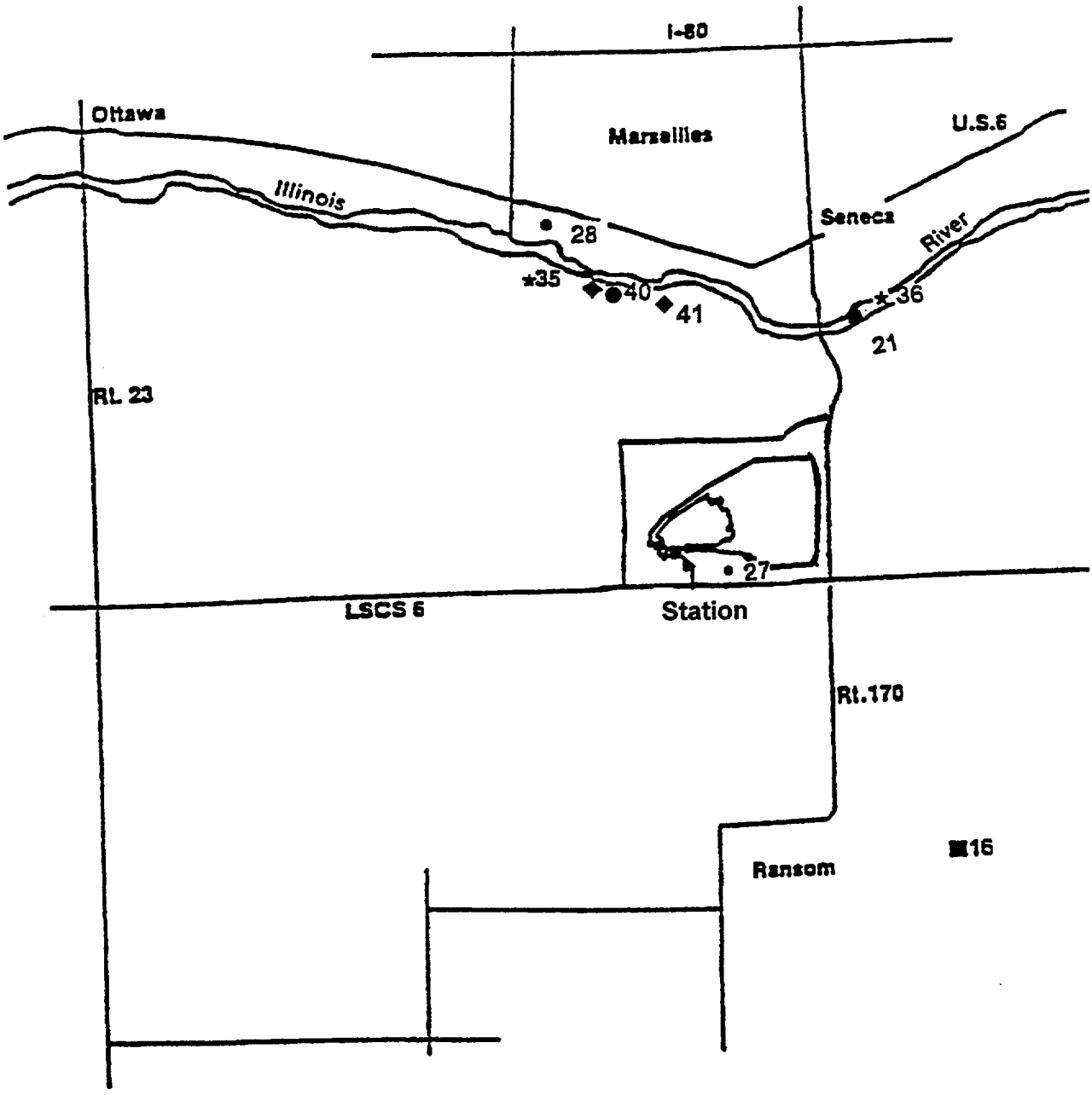

Ottawa
South Ottawa
Illinois
Marseilles
8
Seneca
7
La Salle
Grundy
River
1
3
Plant
6
5
4
Site Property
Grand Ridge
Verona
Kinsman
11 Ransom
Streator
10
La Salle County
Grundy County
Livingston County
Air Sampling Location
LaSalle Station
0 1 2 3 4 5 Miles
0 2 4 6 8 10 Kilometers
LASALLE COUNTY STATION
FIXED AIR SAMLING SITES
L-01 Nearsite No. 1
L-03 Onsite No. 3
L-04 Nearsite No. 4
L-05 Onsite No. 5
L-06 Nearsite No. 6
L-07 Seneca
L-08 Marseilles
L-10 Streator
L-11 Ransom

Figure 5.0-4



LaSalle County Station

Ingestion and Waterborne Exposure Pathway Sample Locations

L-16 Lowery Dairy
L-21 Illinois River at Seneca
L-27 LSCS Onsite Well at Station
L-28 Marseilles Well
L-35 Marseilles Pool of Illinois River
L-36 Illinois River Downstream of Discharge
L-40 Illinois River Downstream
L-41 Illinois River Downstream

TABLE 5.0-1

LaSalle Station Radiological Environmental Monitoring Locations

	Air Sampling	TLD	Vegetation	Fish	Milk	Sediments	Surface Water	Well Water
L-01 Nearsite No. 1	✓	✓	.	.	.	.	.	.
L-03 Onsite No. 3	✓	✓	.	.	.	.	.	.
L-04 Nearsite No. 4	✓	✓	.	.	.	.	.	.
L-05 Onsite No. 5	✓	✓	.	.	.	.	.	.
L-06 Nearsite No. 6	✓	✓	.	.	.	.	.	.
L-07 Seneca	✓	✓	.	.	.	.	.	.
L-08 Marseilles	✓	✓	.	.	.	.	.	.
L-10 Streator	✓	✓	.	.	.	.	.	.
L-11 Ransom	✓	✓	.	.	.	.	.	.
L-16 Lowery Dairy	.	.	.	.	✓	.	.	.
L-21 Illinois River at Seneca	.	.	.	.	.	.	✓	.
L-27 LSCS Onsite Well at Station	.	.	.	.	.	.	.	✓
L-28 Marseilles Well	.	.	.	.	.	.	.	✓
L-35 Marseilles Pool of Illinois River	.	.	.	✓	.	.	.	.
L-36 Illinois River Upstream of Discharge	.	.	.	✓	.	.	.	.
L-40 Illinois River Downstream	.	.	.	.	.	✓	✓	.
L-41 Illinois River Downstream	.	.	.	.	.	✓	.	.
L-Quadrant 1	.	.	✓	.	.	.	.	.
L-Quadrant 2	.	.	✓	.	.	.	.	.
L-Quadrant 3	.	.	✓	.	.	.	.	.
L-Quadrant 4	.	.	✓	.	.	.	.	.
L-Control	.	.	✓	.	.	.	.	.

CENSUS
Dairy
Residence
Livestock

TABLE 5.0-2

LASALLE STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

1. AIR SAMPLERS

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-01	Nearsite No. 1	0.5	NNW	R
L-03	Onsite No. 3	0.2	ENE	D
L-04	Nearsite No. 4	3.2	E	E
L-05	Onsite Station No. 5	0.3	ESE	F
L-06	Nearsite No. 6	0.4	WSW	M
L-07	Seneca	5.2	NNE	B
L-08	Marseilles	6.0	NNW	R
L-10 (C)	Streator	13.5	SW	L
L-11	Ransom	6.0	S	J

2. TLDs

a. Same as No. 1.

b. Special TLD locations

Site Code	Distance (miles)	Direction	Sector
Inner Ring			
L-101-1,2	0.5	N	A
L-102-1,2	0.6	NNE	B
L-103-1,2	0.7	NE	C
L-104-1,2	0.8	ENE	D
L-105-1,2	0.7	E	E
L-106-1,2	1.4	ESE	F
L-107-1,2	0.8	SE	G
L-108-1,2	0.5	SSE	H
L-109-1,2	0.6	S	J
L-110-1,2	0.6	SSW	K
L-111b-1,2	0.8	SW	L
L-112-1,2	0.9	WSW	M
L-113a-1,2	0.8	W	N
L-114-1,2	0.9	WNW	P
L-115-1,2	0.7	NW	Q
L-116-1,2	0.6	NNW	R

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

TABLE 5.0-2 (continued)

LASALLE STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

2. TLDs

b. Special TLD locations (continued)

Site Code	Distance (miles)	Direction	Sector
Outer Ring			
L-201-3,4	4.0	N	A
L-202-3,4	3.6	NNE	B
L-203-1,2	4.0	NE	C
L-204-1,2	3.2	ENE	D
L-205-1,2	3.2	ESE	F
L-205-3,4	5.1	E	E
L-206-1,2	4.3	SE	G
L-207-1,2	4.5	SSE	H
L-208-1,2	4.5	S	J
L-209-1,2	4.0	SSW	K
L-210-1,2	3.3	SW	L
L-211-1,2	4.5	WSW	M
L-212-1,2	4.0	WSW	M
L-213-3,4	4.9	W	N
L-214-3,4	5.1	WNW	P
L-215-3,4	5.0	NW	Q
L-216-3,4	5.0	NNW	R

3. MILK

Site Code[a]	Location	Distance (mile)	Direction	Sector
L-16 (C)	Lowery Dairy	7.2	ESE	F

4. GROUND/WELL WATER

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-27	LSCS Onsite Well at Station	At Station		
L-28	Marseilles Well	7.0	NW	Q

5. SURFACE WATER

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-21 (C)	Illinois River at Seneca	4.0	NE	C
L-40	Illinois River Downstream	5.2	NNW	R

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

TABLE 5.0-2 (continued)

LASALLE STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLING LOCATIONS

6. FISH

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-35	Marseilles Pool of Illinois River	6.5	NW	Q
L-36 (C)	Illinois River Upstream of Discharge	4.3	NNE	B

7. SEDIMENTS

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-40	Illinois River Downstream	5.2	NNW	R
L-41	Illinois River Downstream	4.6	N	A

8. VEGETATION

Site Code[a]	Location	Distance (miles)	Direction	Sector
L-Quadrant-1	Diane Partridge	4.5	NE	C
L-Quadrant-2	Mike & Gina Welbourne	3.8	ESE	H
L-Quadrant-3	Michael Olsen	1.5	WSW	M
L-Quadrant-4	Robert Eisers	4.5	NW	Q
L-Control(C)	Eugene Clements	10.0	NW	Q

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

TABLE 5.0-2 (continued)

LASALLE COUNTY 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).
	L-01	Nearsite No. 1			
	L-03	Onsite No. 3			
	L-05	Onsite No. 5			
	L-06	Nearsite No. 6			
	L-10 (C)	Streator			
	Far Field			Gamma Isot.	If gross beta in a sample exceeds 10 times the yearly mean of control samples and radioactivity is confirmed as having its origin in airborne effluents from station.
	L-04	Rte. 70			
	L-07	Seneca			
	L-08	Marseilles			
	L-11	Ranson			
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. L-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				
	110-1,2				
	111b-1,2				
	112-1,2				
	113a-1,2				
	114-1,2				
	115-1,2				
	116-1,2				
	c. L-201-3,4	Outer Ring			
	202-3,4				
	203-1,2				
	204-1,2				
	205-1,2,3,4				
	206-1,2				
	207-1,2				
	208-1,2				
	209-1,2				
	210-1,2				
	211-1,2				

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

TABLE 5.0-2 (continued)

LASALLE COUNTY STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis
4. TLDs (continued)	Outer Ring		Quarterly	Gamma	Quarterly
	L-212-1,2				
	213-3,4				
	214-3,4				
	215-3,4				
	216-3,4				
5. Milk	L-16 (C)	Lowery Dairy	Biweekly: May-October Monthly: November-April	I-131 Gamma Isot.	Biweekly: May-October Monthly: November-April
6. Vegetables	Quad 1	D. Partridge	Annually - two varieties from each location as available at harvest.	Gamma Isot. I-131	Annually Annually, on broad leaf vegetation.
	Quad 2	Mike & Gina Welbourne			
	Quad 3	M. Olsen			
	Quad 4	R. Eisers			
	Control	E. Clements			
7. Ground/Well Water	L-27	LSCS Onsite Well	Quarterly	Gamma Isot. Tritium	Quarterly
	L-28	Marseilles Well			
8. Surface Water	L-21 (C)	Illinois River at Seneca	Weekly	Gross Beta Gamma Isot. Tritium	Monthly composite. Monthly composite. Quarterly composite.
	L-40	Illinois River Downstream			
9. Fish (at least two species)	L-35	Marseilles Pool of Illinois River	Two times/year	Gamma Isot.	Two times/year on edible portions only.
	L-36 (C)	Illinois River Upstream of Discharge			
10. Sediments	L-40	Illinois River Downstream	Semiannually	Gamma Isot.	Semiannually
	L-41	Illinois River Downstream			
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.	
c. At dairies listed in Item 5.			-	c. Inquire as to feeding practices:	Annually during grazing season.

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

TABLE 5.0-2 (continued)

LASALLE COUNTY STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM, SAMPLE COLLECTION AND ANALYSES

Sample Media	Location Code[a]	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis
13. Land Use Census (continued)				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%.	
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: LaSalle Nuclear Power Station
Location of Facility: LaSalle, Illinois
(County, State)

Docket No. 50-373, 50-374
Reporting Period: 1st Quarter 1999

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	60	0.01	0.023 (46/48) (0.013-0.040)	L-10, Streator, 13.5 mil SW, Sector L	0.025 (13/13) (0.017-0.040)	0.025 (13/13) (0.017-0.040)	0
	Gamma Spec.	5						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	30	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		15-30	None	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	6.2 (2/3) (6.0-6.3)	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	6.9 (2/3) (6.6-7.2)	6.9 (2/3) (6.6-7.2)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	353 (1/1)	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	482 (1/1)	482 (1/1)	0
Well Water (pCi/L)	Tritium	2	200	<LLD	-		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	84	9.7	16.6 (82/82) (14.1-19.4)	L-07-2, Seneca 54.2 mi. NNE, Sector B	19.4 (1/1)	14.3 (2/2) (13.9-14.7)	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: LaSalle Nuclear Power Station
Location of Facility: LaSalle, Illinois
(County, State)

Docket No. 50-373, 50-374
Reporting Period: 2nd Quarter 1999

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	65	0.01	0.020 (51/52) (0.013-0.031)	L-01,[b] Nearsite No. 1 1.5 mi. NNW, Sector R	0.021 (13/13) (0.015-0.031)	0.021 (13/13) (0.015-0.033)	0
	Gamma Spec.	5						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	35	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	5	0.5/5[c]	<LLD	-	-	<LLD	0
	Gamma Spec.	5						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Ba/La-140		15	<LLD	-	-	<LLD	0
	Other Gammas		15-30	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec.	9						
	Cs-134		0.10	<LLD	-	-	<LLD	0
	Cs-137		0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas		0.20-0.30	<LLD	-	-	<LLD	0
Sediments (pCi/g wet)	Gamma Spec.	2						
	Cs-134		0.15	<LLD	-	-	None	0
	Cs-137		0.18	<LLD	-	-	None	0
	Other Gammas		0.10-0.60	<LLD	-	-	None	0
Surface Water (pCi/L)	Gross Beta	6	4	4.5 (1/3)	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	5.9 (3/3) (4.5-8.1)	5.9 (3/3) (4.5-8.1)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	215 (1/1)	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	256 (1/1)	256 (1/1)	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[b] Locations L-01, L-06 and L-10 had identical means of 0.021 pCi/m^3. L-01 and L-10 (C) are 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: LaSalle Nuclear Power Station — Docket No. 50-373, 50-374

Location of Facility: LaSalle, Illinois (County, State) — Reporting Period: 2nd Quarter 1999

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	<LLD	-	-	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	84	9.7	18.5 (82/82) (15.6-21.3)	L-102-1 0.6 mi. NNE, Sector B	21.3 (1/1)	16.5 (2/2) (16.1-16.8)	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: LaSalle Nuclear Power Station — Docket No. 50-373, 50-374

Location of Facility: LaSalle, Illinois (County, State) — Reporting Period: 3rd Quarter 1999

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	70	0.01	0.027 (56/56) (0.015-0.046)	L-10, Streator 13.5 mi. SW, Sector L	0.029 (14/14) (0.021-0.043)	0.029 (14/14) (0.021-0.043)	0
	Gamma Spec.	5						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	35	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	6	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		15-30	None	-	-	<LLD	0
Vegetation (pCi/g wet)	I-131	5	0.06	<LLD	-		<LLD	0
	Gamma Spec.	10						
	Cs-134		0.06	<LLD	-	-	<LLD	0
	Cs-137		0.08	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.10	<LLD	-	-	<LLD	0
Surface Water (pCi/L)	Gross Beta	6	4	6.3 (3/3) (5.4-7.3)	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	7.8 (3/3) (5.2-9.6)	7.8 (3/3) (5.2-9.6)	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	L-21, Illinois River at Seneca 4.0 mi. NE, Sector C	278 (1/1)	278 (1/1)	0
Well Water (pCi/L)	Tritium	2	200	<LLD	-	-	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

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

Table 5.0-5 (continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: LaSalle Nuclear Power Station
Location of Facility: LaSalle, Illinois
(County, State)

Docket No. 50-373, 50-374
Reporting Period: 3rd Quarter 1999

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
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	84	9.7	18.1 (82/82) (14.7-20.9)	L-102-1 0.6 mi. NNE, Sector B	20.9 (1/1)	15.3 (2/2) (15.2-15.3)	0

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

Table 5.0-6

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM QUARTERLY SUMMARY

Name of Facility: LaSalle Nuclear Power Station — Docket No. 50-373, 50-374

Location of Facility: LaSalle, Illinois (County, State) — Reporting Period: 4th Quarter 1999

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean	Highest Mean[a] Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	65	0.01	0.036 (52/52) (0.020-0.054)	L-10, Streator 13.5 mi. SW, Sector L	0.039 (13/13) (0.026-0.057)	0.039 (13/13) (0.026-0.057)	0
	Gamma Spec.	5						
	Cs-134		0.01	<LLD	-	-	<LLD	0
	Cs-137		0.01	<LLD	-	-	<LLD	0
	Other Gammas		0.01-0.04	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131	30	0.07	<LLD	-	-	<LLD	0
Milk (pCi/L)	I-131	4	0.5/5[b]	<LLD	-	-	<LLD	0
	Gamma Spec.	4						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Ba/La-140		15	<LLD	-	-	<LLD	0
	Other Gammas		15-30	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gamma Spec.	8						
	Cs-134		0.10	<LLD	-	-	<LLD	0
	Cs-137		0.10	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		0.13-0.26	<LLD	-	-	<LLD	0
	Other Gammas		0.20-0.30	<LLD	-	-	<LLD	0
Sediments (pCi/g wet)	Gamma Spec.	2						
	Cs-134		0.15	<LLD	-	-	None	0
	Cs-137		0.18	<LLD	-	-	None	0
	Other Gammas		0.10-0.60	<LLD	-	-	None	0
Surface (pCi/L)	Gross Beta	6	4	6.3 (3/3)	L-21, Illinois River 4.0 mi. NE, Sector C	6.5 (3/3) (4.3-8.3)	6.5 (3/3) (4.3-8.3)	0
	Gamma Spec.	6						
	Cs-134		15	<LLD	-	-	<LLD	0
	Cs-137		18	<LLD	-	-	<LLD	0
	Other ODCM-Required Gammas		15-30	<LLD	-	-	<LLD	0
	Tritium	2	200	567 (1/1)	L-40, Illinois River Downstream 4.0 mi. NNW, SectorR	567 (1/1)	323 (1/1)	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: LaSalle Nuclear Power Station
Location of Facility: LaSalle, Illinois
(County, State)

Docket No. 50-373, 50-374
Reporting Period: 4th Quarter 1999

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	<LLD	-	-	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	84	9.7	17.8 (82/82) (14.8-21.6)	L-107-1 0.8 mi. SE, Sector G	21.6 (1/1)	15.3 (2/2) (15.1-15.4)	0

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

APPENDIX II

METEOROLOGICAL DATA

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	4	4
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	4	4

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	3	3
SW	0	0	0	0	1	2	3
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	5	6

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - NEUTRAL (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	5	17	21	18	2	63
NNE	0	8	34	23	12	0	77
NE	0	13	11	24	23	4	75
ENE	0	7	14	23	19	36	99
E	2	3	8	10	12	11	46
ESE	0	6	10	5	14	17	52
SE	1	3	5	6	2	4	21
SSE	2	2	8	10	14	5	41
S	0	1	9	10	11	23	54
SSW	0	5	3	2	8	23	41
SW	3	7	14	4	2	7	37
WSW	0	1	6	4	8	12	31
W	1	3	6	18	15	36	79
WNW	1	4	12	34	34	39	124
NW	1	10	18	25	48	33	135
NNW	2	0	9	10	15	18	54
VARIABLE	0	0	0	0	0	0	0
TOTAL	13	78	184	229	255	270	1029

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 35
Hours of missing stability measurements in all stability classes: 0

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	1	3	12	13	0	30
NNE	1	2	27	16	8	1	55
NE	1	2	9	18	2	8	40
ENE	1	3	4	19	10	21	58
E	1	4	14	16	9	14	58
ESE	0	2	5	10	11	8	36
SE	0	2	2	8	7	20	39
SSE	0	7	8	10	3	9	37
S	0	1	0	2	7	22	32
SSW	1	1	5	10	2	39	58
SW	0	1	4	17	7	12	41
WSW	0	1	2	6	3	12	24
W	1	2	5	7	14	48	77
WNW	1	0	3	9	14	46	73
NW	1	3	5	3	13	7	32
NNW	1	3	5	7	8	1	25
VARIABLE	0	0	0	0	0	0	0
TOTAL	10	35	101	170	131	268	715

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	0	0	2	0	0	3
NNE	1	1	2	3	0	0	7
NE	2	1	2	4	2	0	11
ENE	3	1	0	3	1	1	9
E	0	1	4	6	0	1	12
ESE	0	1	2	10	1	3	17
SE	0	1	6	3	0	5	15
SSE	2	1	7	3	5	2	20
S	0	2	0	2	0	7	11
SSW	0	0	4	2	4	23	33
SW	1	0	0	3	2	31	37
WSW	0	0	0	4	8	7	19
W	0	0	6	7	5	4	22
WNW	0	2	4	1	5	2	14
NW	0	1	3	5	6	3	18
NNW	0	0	0	2	1	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	10	12	40	60	40	89	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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JANUARY-MARCH 1999

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	1	1	0	2
ENE	0	0	1	1	0	0	2
E	0	0	0	2	0	0	2
ESE	0	1	0	2	2	1	6
SE	0	0	1	5	2	5	13
SSE	0	0	3	6	5	2	16
S	0	0	3	1	5	8	17
SSW	0	1	1	3	10	12	27
SW	0	1	1	4	2	4	12
WSW	0	0	1	3	1	0	5
W	0	0	1	1	4	2	8
WNW	0	0	0	3	2	2	7
NW	0	0	0	0	3	0	3
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	3	12	32	37	36	120

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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: 01

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	1	3	4
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	2	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	0	0	0	0	1	5	6

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	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	0	0	0	0
SE	0	0	0	0	0	1	1
SSE	0	0	0	0	0	1	1
S	0	0	0	0	0	3	3
SSW	0	0	0	0	3	1	4
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	1	1
WNW	0	0	0	0	1	0	1
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	0	0	1	0	4	7	12

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - NEUTRAL (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	2	10	20	16	19	1	68
NNE	1	4	16	12	10	4	47
NE	0	16	25	21	35	24	121
ENE	0	16	11	20	22	33	102
E	0	7	11	8	11	11	48
ESE	0	10	21	27	5	14	77
SE	0	8	19	26	8	1	62
SSE	0	5	14	17	10	12	58
S	2	7	12	27	36	18	102
SSW	1	8	21	21	17	14	82
SW	1	6	5	26	14	20	72
WSW	0	3	6	2	18	5	34
W	1	5	5	13	18	7	49
WNW	0	8	8	33	26	21	96
NW	2	4	15	8	22	23	74
NNW	0	0	8	8	12	7	35
VARIABLE	0	0	0	0	0	0	0
TOTAL	10	117	217	285	283	215	1127

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	2	5	5	6	0	18
NNE	0	3	5	6	0	0	14
NE	0	2	8	7	17	15	49
ENE	0	4	5	20	17	8	54
E	0	1	9	23	17	15	65
ESE	1	8	9	24	14	10	66
SE	0	9	8	19	9	10	55
SSE	0	4	6	19	8	8	45
S	1	1	5	16	23	22	68
SSW	0	4	10	10	11	21	56
SW	1	2	4	3	8	20	38
WSW	0	5	7	8	14	3	37
W	0	3	5	11	6	13	38
WNW	1	3	5	9	11	7	36
NW	1	4	5	6	4	0	20
NNW	0	4	6	7	8	2	27
VARIABLE	0	0	0	0	0	0	0
TOTAL	5	59	102	193	173	154	686

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	1	1	2	0	0	5
NNE	0	1	2	0	0	0	3
NE	0	0	0	0	1	0	1
ENE	0	1	0	3	2	0	6
E	1	3	0	5	1	0	10
ESE	0	2	5	9	15	0	31
SE	0	3	13	20	10	1	47
SSE	2	1	6	18	9	2	38
S	0	2	2	1	20	14	39
SSW	0	1	0	2	22	20	45
SW	0	1	1	0	3	2	7
WSW	0	2	2	1	5	6	16
W	0	1	4	1	9	5	20
WNW	0	0	3	9	3	4	19
NW	0	2	1	1	3	0	7
NNW	0	1	0	2	1	0	4
VARIABLE	0	0	0	0	0	0	0
TOTAL	4	22	40	74	104	54	298

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: APRIL-JUNE 1999

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	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	2	1	0	3
SE	0	0	0	1	3	0	4
SSE	0	0	0	5	4	3	12
S	0	0	1	5	5	6	17
SSW	0	1	0	4	3	1	9
SW	0	0	0	0	1	0	1
WSW	0	0	0	0	0	1	1
W	0	0	3	0	0	1	4
WNW	0	0	3	1	0	0	4
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	0	1	7	18	17	12	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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	6	5	4	15
SW	0	0	0	4	1	2	7
WSW	0	0	0	3	3	0	6
W	0	0	0	0	2	0	2
WNW	0	0	0	3	0	0	3
NW	0	0	0	1	0	0	1
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	17	11	6	34

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	2	5	1	0	8
NNE	0	0	0	3	0	0	3
NE	0	0	0	0	0	0	0
ENE	0	0	1	1	1	0	3
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	0	0	0	1
SSE	0	0	2	0	0	0	2
S	0	0	0	0	0	0	0
SSW	0	0	1	6	4	1	12
SW	0	0	2	4	6	2	14
WSW	0	0	3	2	2	3	10
W	0	0	4	1	4	1	10
WNW	0	0	1	1	0	0	2
NW	0	0	0	3	2	0	5
NNW	0	0	2	2	2	0	6
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	19	28	22	7	76

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - NEUTRAL (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	1	11	30	31	8	5	86
NNE	0	10	41	25	1	0	77
NE	2	30	11	17	14	0	74
ENE	0	9	6	17	4	0	36
E	0	5	7	4	0	0	16
ESE	1	8	8	3	0	0	20
SE	1	18	20	0	0	0	39
SSE	0	15	7	1	5	1	29
S	1	8	11	5	3	1	29
SSW	0	13	7	5	23	3	51
SW	1	17	19	22	26	6	91
WSW	3	14	23	19	19	3	81
W	0	13	32	32	22	3	102
WNW	0	6	24	15	8	3	56
NW	2	4	16	18	10	1	51
NNW	0	7	26	30	21	3	87
VARIABLE	0	0	0	0	0	0	0
TOTAL	12	188	288	244	164	29	925

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	4	14	24	23	0	65
NNE	2	1	7	17	3	0	30
NE	1	3	10	10	10	0	34
ENE	0	1	10	12	3	0	26
E	0	3	10	8	9	1	31
ESE	1	3	10	2	7	0	23
SE	1	3	7	6	3	0	20
SSE	0	3	6	5	2	0	16
S	0	1	7	2	3	19	32
SSW	3	6	2	5	14	25	55
SW	1	6	5	4	23	26	65
WSW	1	3	11	3	16	5	39
W	0	2	9	17	10	0	38
WNW	0	2	6	9	4	0	21
NW	1	3	4	6	5	0	19
NNW	0	8	4	8	10	0	30
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	52	122	138	145	76	544

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	4	2	8	5	3	22
NNE	2	1	13	7	1	0	24
NE	1	3	5	2	0	0	11
ENE	1	0	2	0	0	0	3
E	1	2	4	5	6	3	21
ESE	1	4	5	7	1	4	22
SE	3	6	10	11	4	0	34
SSE	2	4	3	4	5	0	18
S	1	4	2	3	4	11	25
SSW	1	2	3	3	8	13	30
SW	0	2	10	5	9	21	47
WSW	0	3	5	10	15	11	44
W	1	1	6	16	21	10	55
WNW	1	2	2	11	15	0	31
NW	0	3	5	7	7	0	22
NNW	0	2	2	11	10	0	25
VARIABLE	0	0	0	0	0	0	0
TOTAL	15	43	79	110	111	76	434

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: JULY-SEPTEMBER 1999

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	3	1	0	0	4
NNE	0	1	1	2	1	0	5
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	1	1	0	0	0	2
ESE	0	0	0	4	0	4	8
SE	0	1	0	8	6	3	18
SSE	0	1	0	7	9	5	22
S	0	0	7	5	6	5	23
SSW	0	0	1	1	8	17	27
SW	0	2	1	7	5	7	22
WSW	0	1	4	4	6	10	25
W	0	3	1	10	3	1	18
WNW	0	2	2	5	1	0	10
NW	0	1	0	4	1	0	6
NNW	0	1	2	0	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	15	23	58	46	52	194

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - EXTREMELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - MODERATELY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - SLIGHTLY UNSTABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND SPEED (in mph)

WIND DIRECTION	0.8-3	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	1	0	1
SSE	0	0	0	0	0	0	0
S	0	0	0	0	2	0	2
SSW	0	0	0	0	6	1	7
SW	0	0	0	0	3	4	7
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	0	12	5	17

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - NEUTRAL (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	9	6	22	36	3	76
NNE	1	10	21	27	6	1	66
NE	2	15	7	5	4	1	34
ENE	2	4	5	9	5	0	25
E	1	4	1	1	1	0	8
ESE	1	8	6	8	2	0	25
SE	1	4	8	7	7	0	27
SSE	1	4	5	22	3	0	35
S	0	3	4	8	12	21	48
SSW	1	2	1	9	20	27	60
SW	1	7	6	23	22	22	81
WSW	0	8	5	18	8	10	49
W	0	11	16	22	22	20	91
WNW	0	3	14	17	12	5	51
NW	0	5	23	27	18	37	110
NNW	0	9	6	18	39	25	97
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	106	134	243	217	172	883

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - SLIGHTLY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	9	4	18	20	1	52
NNE	0	2	11	17	3	0	33
NE	0	3	11	16	7	4	41
ENE	0	2	9	9	4	0	24
E	1	2	3	7	2	2	17
ESE	0	6	12	14	1	1	34
SE	0	4	6	12	4	3	29
SSE	0	2	4	6	7	9	28
S	1	2	9	4	5	37	58
SSW	0	4	8	0	18	66	96
SW	1	4	2	8	17	36	68
WSW	1	1	4	7	6	5	24
W	0	3	7	7	5	21	43
WNW	0	1	17	17	3	26	64
NW	0	4	14	11	7	19	55
NNW	0	0	7	6	12	4	29
VARIABLE	0	0	0	0	0	0	0
TOTAL	4	49	128	159	121	234	695

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - MODERATELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	1	7	6	14	4	32
NNE	0	4	9	7	0	0	20
NE	0	0	4	9	2	0	15
ENE	0	0	0	0	1	0	1
E	0	2	2	1	6	3	14
ESE	0	2	1	6	4	4	17
SE	0	3	3	7	4	6	23
SSE	0	1	3	2	4	7	17
S	0	1	1	2	11	27	42
SSW	0	0	3	2	13	34	52
SW	0	2	5	9	9	31	56
WSW	0	0	4	10	4	7	25
W	1	0	6	3	1	6	17
WNW	0	1	14	10	10	1	36
NW	0	2	0	15	23	9	49
NNW	0	0	0	3	13	1	17
VARIABLE	0	0	0	0	0	0	0
TOTAL	1	19	62	92	119	140	433

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

LASALLE NUCLEAR POWER STATION

PERIOD OF RECORD: OCTOBER-DECEMBER 1999

STABILITY CLASS - EXTREMELY STABLE (DIFF TEMP 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (in mph) 0.8-3	4-7	8-12	13-18	19-24	> 24	TOTAL
N	0	0	1	4	3	0	8
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	3	3
SE	0	0	0	0	2	8	10
SSE	0	1	1	0	4	13	19
S	0	0	1	2	2	18	23
SSW	0	0	0	0	4	14	18
SW	1	1	0	7	10	38	57
WSW	0	0	0	3	3	16	22
W	1	0	1	1	0	4	7
WNW	0	1	0	1	1	1	4
NW	0	2	0	0	4	1	7
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	2	5	5	18	33	116	179

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

APPENDIX III

1999 REMP SAMPLE RESULTS

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1.0 INTRODUCTION

The following constitutes the current, 1999 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the LaSalle County Station, Marseilles, 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 alpha and beta, are decay corrected to the time of collection.

TLD data is provided by Commonwealth Edison Company.

Deviations from Scheduled Sampling and Corrective Actions Taken

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

Unusual Environmental Measurements:

None for 1999.

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Expected Collection Date	Reason
MI	L-16	07-29-99	Collector inadvertantly omitted milk collection due to misunderstanding of collection frequency (collection is biweekly, not bimonthly). Collector was informed of his error by Teledyne ComEd Point of Contact; Corporate Point of Contact notified.

3.0 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	L-06	12-09-99	Low reading of 139.1 possibly due to installation of new power line.
A	L-05	12-29-99	Low reading of 56.9 due to power outage at location.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Air Particulates - Continuous; weekly exchange
Iodine Cartridges - Continuous; biweekly exchange

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

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

L-01 Nearsite No. 1

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-07-99	283	3.2 ± 0.4; 0.7	0.1 ± 0.6; 0.6
01-14-99	283	3.5 ± 0.4; 0.7	-
01-21-99	284	1.3 ± 0.3; 0.4	0.0 ± 0.6; 0.6
01-28-99	283	0.9 ± 0.3; 0.3	-
02-04-99	288	0.9 ± 0.3; 0.4	0.7 ± 0.8; 0.8
02-11-99	283	2.8 ± 0.4; 0.6	-
02-18-99	285	2.4 ± 0.4; 0.6	-0.0 ± 0.8; 0.8
02-25-99	287	1.9 ± 0.3; 0.5	-
03-04-99	294	2.6 ± 0.4; 0.6	-0.1 ± 0.5; 0.5
03-11-99	276	2.2 ± 0.3; 0.5	-
03-18-99	288	2.4 ± 0.3; 0.5	0.1 ± 0.8; 0.8
03-25-99	286	2.1 ± 0.3; 0.5	-
1st Qtr. Mean±s.d.		2.2±0.8	0.1±0.3
04-01-99	285	1.9 ± 0.3; 0.5	0.1 ± 0.6; 0.6
04-08-99	297	2.2 ± 0.4; 0.5	-
04-15-99	273	2.0 ± 0.4; 0.5	-0.2 ± 1.0; 1.0
04-22-99	290	2.1 ± 0.3; 0.5	-
04-29-99	279	1.9 ± 0.4; 0.5	0.7 ± 1.1; 1.1
05-06-99	286	2.2 ± 0.3; 0.5	-
05-13-99	280	2.0 ± 0.3; 0.5	0.1 ± 0.6; 0.6
05-20-99	300	2.0 ± 0.3; 0.5	-
05-27-99	285	2.0 ± 0.3; 0.5	0.8 ± 0.7; 0.7
06-03-99	283	1.9 ± 0.4; 0.5	-
06-10-99	287	2.3 ± 0.3; 0.5	-0.0 ± 0.4; 0.4
06-17-99	285	1.5 ± 0.3; 0.4	-
06-24-99	283	3.1 ± 0.4; 0.7	0.1 ± 0.6; 0.6
2nd Qtr. Mean±s.d.		2.1±0.4	0.2±0.4
07-01-99	287	2.1 ± 0.3; 0.5	-
07-08-99	286	2.1 ± 0.4; 0.5	0.4 ± 0.7; 0.7
07-15-99	290	2.4 ± 0.4; 0.6	-
07-22-99	279	2.8 ± 0.4; 0.6	0.5 ± 0.8; 0.8
07-29-99	290	2.7 ± 0.4; 0.6	-
08-05-99	294	2.0 ± 0.4; 0.5	0.3 ± 0.6; 0.6
08-12-99	290	3.0 ± 0.4; 0.7	-
08-21-99	367	2.1 ± 0.3; 0.5	0.1 ± 0.4; 0.4
08-26-99	191	3.0 ± 0.5; 0.7	-
09-02-99	284	3.6 ± 0.4; 0.8	-0.0 ± 0.6; 0.6
09-09-99	281	3.9 ± 0.4; 0.8	-
09-16-99	282	3.2 ± 0.4; 0.7	-0.1 ± 0.6; 0.6
09-23-99	286	2.4 ± 0.4; 0.6	-
09-30-99	288	2.9 ± 0.4; 0.6	0.3 ± 0.6; 0.6
3rd Qtr. Mean±s.d.		2.7±0.6	0.2±0.2
10-07-99	285	2.8 ± 0.4; 0.6	-
10-14-99	281	3.4 ± 0.4; 0.8	0.3 ± 0.6; 0.6
10-21-99	293	2.5 ± 0.3; 0.6	-
10-28-99	279	2.5 ± 0.4; 0.6	0.3 ± 0.6; 0.6
11-04-99	285	5.0 ± 0.5; 1.0	-
11-11-99	285	3.7 ± 0.4; 0.8	-0.5 ± 0.8; 0.8
11-18-99	285	4.3 ± 0.4; 0.9	-
11-24-99	244	4.9 ± 0.5; 1.0	-0.1 ± 0.6; 0.6
12-02-99	324	4.0 ± 0.4; 0.8	-
12-09-99	288	2.7 ± 0.4; 0.6	0.5 ± 0.7; 0.7
12-16-99	288	3.7 ± 0.4; 0.8	-
12-22-99	237	3.7 ± 0.5; 0.8	0.5 ± 0.6; 0.6
12-29-99	286	3.5 ± 0.4; 0.8	-
4th Qtr. Mean±s.d.		3.6±0.8	0.2±0.4

[a] Volume based on two week collection period.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Air Particulates - Continuous; weekly exchange
Iodine Cartridges - Continuous; biweekly exchange

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

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

L-03 Onsite No. 3

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-07-99	288	3.1 ± 0.4; 0.7	-0.1 ± 0.6; 0.6
01-14-99	282	3.6 ± 0.4; 0.8	-
01-21-99	285	1.8 ± 0.3; 0.5	-0.1 ± 0.6; 0.6
01-28-99	283	1.9 ± 0.3; 0.5	-
02-04-99	288	2.2 ± 0.4; 0.5	0.4 ± 0.7; 0.7
02-11-99	283	2.5 ± 0.3; 0.6	-
02-18-99	284	1.9 ± 0.3; 0.5	0.1 ± 0.7; 0.7
02-25-99	283	1.6 ± 0.3; 0.4	-
03-04-99	293	2.0 ± 0.3; 0.5	0.6 ± 0.6; 0.6
03-11-99	277	2.0 ± 0.3; 0.5	-
03-18-99	288	2.4 ± 0.3; 0.5	-0.5 ± 0.7; 0.7
03-25-99	272	2.2 ± 0.4; 0.5	-
1st Qtr. Mean±s.d.		2.3±0.6	0.1±0.4
04-01-99	292	1.8 ± 0.3; 0.5	-0.1 ± 0.5; 0.5
04-08-99	297	2.0 ± 0.4; 0.5	-
04-15-99	273	1.9 ± 0.4; 0.5	0.6 ± 1.2; 1.2
04-22-99	290	1.9 ± 0.3; 0.5	-
04-29-99	279	2.1 ± 0.4; 0.5	-0.7 ± 1.2; 1.2
05-06-99	285	1.9 ± 0.3; 0.5	-
05-13-99	281	1.5 ± 0.3; 0.4	-0.4 ± 0.7; 0.7
05-20-99	289	0.9 ± 0.3; 0.3	-
05-27-99	286	1.8 ± 0.3; 0.4	0.4 ± 0.8; 0.8
06-03-99	282	1.6 ± 0.4; 0.5	-
06-10-99	287	2.0 ± 0.3; 0.5	0.2 ± 0.4; 0.4
06-17-99	284	1.6 ± 0.3; 0.4	-
06-24-99	283	2.7 ± 0.3; 0.6	0.0 ± 0.9; 0.9
2nd Qtr. Mean±s.d.		1.8±0.4	0.0±0.4
07-01-99	288	2.1 ± 0.3; 0.5	-
07-08-99	286	1.6 ± 0.3; 0.4	-0.0 ± 0.7; 0.7
07-15-99	290	2.2 ± 0.4; 0.5	-
07-22-99	279	3.4 ± 0.4; 0.7	0.2 ± 0.7; 0.7
07-29-99	290	2.9 ± 0.4; 0.6	-
08-05-99	294	1.7 ± 0.4; 0.5	0.2 ± 0.6; 0.6
08-12-99	289	2.8 ± 0.4; 0.6	-
08-21-99	367	2.1 ± 0.3; 0.5	-0.1 ± 0.4; 0.4
08-26-99	191	3.0 ± 0.5; 0.7	-
09-02-99	284	3.4 ± 0.4; 0.7	-0.2 ± 0.7; 0.7
09-09-99	285	3.8 ± 0.4; 0.8	-
09-16-99	282	2.8 ± 0.4; 0.6	0.2 ± 0.5; 0.5
09-23-99	287	1.9 ± 0.4; 0.5	-
09-30-99	288	3.2 ± 0.4; 0.7	0.5 ± 0.6; 0.6
3rd Qtr. Mean±s.d.		2.6±0.7	0.1±0.2
10-07-99	285	2.4 ± 0.4; 0.6	-
10-14-99	281	3.1 ± 0.4; 0.7	0.2 ± 0.6; 0.6
10-21-99	293	2.8 ± 0.4; 0.6	-
10-28-99	279	2.4 ± 0.3; 0.6	-0.2 ± 0.5; 0.5
11-04-99	285	4.2 ± 0.5; 0.9	-
11-11-99	285	3.6 ± 0.4; 0.8	-0.1 ± 0.7; 0.7
11-18-99	285	4.2 ± 0.4; 0.9	-
11-24-99	244	5.1 ± 0.5; 1.0	-0.0 ± 0.6; 0.6
12-02-99	324	3.2 ± 0.4; 0.7	-
12-09-99	287	3.4 ± 0.4; 0.7	0.1 ± 0.5; 0.5
12-16-99	284	3.3 ± 0.4; 0.7	-
12-22-99	237	3.6 ± 0.5; 0.8	1.1 ± 0.5; 0.5
12-29-99	286	2.6 ± 0.4; 0.6	-
4th Qtr. Mean±s.d.		3.4±0.8	0.2±0.5

[a] Volume based on two week collection period.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Air Particulates - Continuous; weekly exchange
Iodine Cartridges - Continuous; biweekly exchange

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

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

L-05 Onsite Station No. 5

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-07-99	283	2.8 ± 0.4; 0.6	0.0 ± 0.6; 0.6
01-14-99	289	3.3 ± 0.4; 0.7	-
01-21-99	287	2.1 ± 0.4; 0.5	0.1 ± 0.6; 0.6
01-28-99	284	2.1 ± 0.3; 0.5	-
02-04-99	286	2.1 ± 0.4; 0.5	-0.6 ± 0.8; 0.8
02-11-99	284	2.5 ± 0.3; 0.6	-
02-18-99	285	2.0 ± 0.3; 0.5	-0.3 ± 0.7; 0.7
02-25-99	283	1.8 ± 0.3; 0.5	-
03-04-99	285	1.9 ± 0.3; 0.5	-0.1 ± 0.7; 0.7
03-11-99	276	2.1 ± 0.3; 0.5	-
03-18-99	284	2.5 ± 0.3; 0.6	-0.2 ± 0.8; 0.8
03-25-99	289	2.2 ± 0.3; 0.5	-
1st Qtr. Mean±s.d.		2.3±0.4	-0.2±0.2
04-01-99	280	1.7 ± 0.3; 0.5	0.2 ± 1.0; 1.0
04-08-99	296	1.7 ± 0.3; 0.5	-
04-15-99	272	1.9 ± 0.4; 0.5	0.5 ± 0.8; 0.8
04-22-99	290	2.1 ± 0.3; 0.5	-
04-29-99	279	2.0 ± 0.4; 0.5	0.4 ± 0.7; 0.7
05-06-99	285	1.9 ± 0.3; 0.5	-
05-13-99	281	1.3 ± 0.3; 0.4	0.4 ± 0.8; 0.8
05-20-99	290	1.6 ± 0.3; 0.4	-
05-27-99	285	1.8 ± 0.3; 0.4	0.2 ± 0.7; 0.7
06-03-99	283	1.9 ± 0.4; 0.5	-
06-10-99	288	2.0 ± 0.3; 0.5	-0.2 ± 0.7; 0.7
06-17-99	283	1.5 ± 0.3; 0.4	-
06-24-99	283	2.3 ± 0.3; 0.5	-0.0 ± 0.4; 0.4
2nd Qtr. Mean±s.d.		1.8±0.3	0.2±0.2
07-01-99	288	1.5 ± 0.3; 0.4	-
07-08-99	282	2.1 ± 0.4; 0.5	0.5 ± 0.5; 0.5
07-15-99	290	2.4 ± 0.4; 0.6	-
07-22-99	279	3.4 ± 0.4; 0.7	0.3 ± 0.7; 0.7
07-29-99	290	3.1 ± 0.4; 0.7	-
08-05-99	294	2.2 ± 0.4; 0.5	0.2 ± 0.7; 0.7
08-12-99	294	2.6 ± 0.4; 0.6	-
08-21-99	367	2.3 ± 0.3; 0.5	0.2 ± 0.4; 0.4
08-26-99	191	3.5 ± 0.5; 0.8	-
09-02-99	293	3.4 ± 0.4; 0.7	0.5 ± 0.7; 0.7
09-09-99	281	4.0 ± 0.4; 0.8	-
09-16-99	282	2.6 ± 0.4; 0.6	-0.2 ± 0.6; 0.6
09-23-99	291	2.1 ± 0.4; 0.5	-
09-30-99	299	2.7 ± 0.3; 0.6	0.2 ± 0.6; 0.6
3rd Qtr. Mean±s.d.		2.7±0.7	0.2±0.2
10-07-99	286	2.0 ± 0.4; 0.5	-
10-14-99	282	2.8 ± 0.4; 0.6	0.3 ± 0.6; 0.6
10-21-99	293	3.1 ± 0.4; 0.7	-
10-28-99	279	2.6 ± 0.4; 0.6	-0.2 ± 0.6; 0.6
11-04-99	282	5.4 ± 0.5; 1.1	-
11-11-99	287	3.8 ± 0.4; 0.8	0.0 ± 0.7; 0.7
11-18-99	285	4.1 ± 0.4; 0.8	-
11-24-99	240	5.2 ± 0.5; 1.1	-0.4 ± 0.6; 0.6
12-02-99	325	4.5 ± 0.4; 0.9	-
12-09-99	287	3.2 ± 0.4; 0.7	-0.1 ± 0.6; 0.6
12-16-99	288	3.4 ± 0.4; 0.8	-
12-22-99	236	3.6 ± 0.5; 0.8	0.2 ± 0.5; 0.5
12-29-99	96.[b]	4.4 ± 1.0; 1.3	-
4th Qtr. Mean±s.d.		3.7±1.0	-0.0±0.3

[a] Volume based on two week collection period.

[b] Volume low due to power outage at location.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Air Particulates - Continuous; weekly exchange
Iodine Cartridges - Continuous; biweekly exchange

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

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

L-06 Nearsite No. 6

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-07-99	288	3.4 ± 0.4; 0.7	-0.8 ± 0.6; 0.6
01-14-99	279	4.0 ± 0.4; 0.8	-
01-21-99	284	2.1 ± 0.4; 0.5	0.2 ± 0.6; 0.6
01-28-99	283	1.7 ± 0.3; 0.4	-
02-04-99	288	2.1 ± 0.4; 0.5	0.3 ± 0.7; 0.7
02-11-99	283	2.5 ± 0.3; 0.6	-
02-18-99	284	2.1 ± 0.4; 0.5	-0.2 ± 0.7; 0.7
02-25-99	287	1.7 ± 0.3; 0.5	-
03-04-99	294	2.2 ± 0.3; 0.5	0.1 ± 0.7; 0.7
03-11-99	277	2.0 ± 0.3; 0.5	-
03-18-99	288	2.6 ± 0.3; 0.6	-0.2 ± 0.9; 0.9
03-25-99	286	2.0 ± 0.3; 0.5	-
1st Qtr. Mean±s.d.		2.4±0.7	-0.1±0.4
04-01-99	285	2.5 ± 0.4; 0.6	0.1 ± 0.5; 0.5
04-08-99	297	1.8 ± 0.3; 0.5	-
04-15-99	273	1.7 ± 0.3; 0.5	1.0 ± 1.0; 1.0
04-22-99	290	1.9 ± 0.3; 0.5	-
04-29-99	279	2.2 ± 0.4; 0.5	1.3 ± 1.3; 1.3
05-06-99	285	2.1 ± 0.3; 0.5	-
05-13-99	280	1.8 ± 0.3; 0.5	-0.4 ± 0.7; 0.7
05-20-99	300	2.0 ± 0.3; 0.5	-
05-27-99	285	2.1 ± 0.3; 0.5	0.4 ± 0.7; 0.7
06-03-99	273	2.2 ± 0.4; 0.6	-
06-10-99	288	2.4 ± 0.3; 0.6	-0.6 ± 0.7; 0.7
06-17-99	284	1.3 ± 0.3; 0.4	-
06-24-99	281	3.0 ± 0.4; 0.6	-0.1 ± 0.4; 0.4
2nd Qtr. Mean±s.d.		2.1±0.4	0.3±0.7
07-01-99	287	2.2 ± 0.3; 0.5	-
07-08-99	282	2.0 ± 0.4; 0.5	0.5 ± 0.6; 0.6
07-15-99	290	2.4 ± 0.4; 0.6	-
07-22-99	279	2.8 ± 0.4; 0.6	0.4 ± 0.8; 0.8
07-29-99	290	2.9 ± 0.4; 0.6	-
08-05-99	294	2.1 ± 0.4; 0.5	0.4 ± 0.6; 0.6
08-12-99	290	2.9 ± 0.4; 0.7	-
08-21-99	367	2.0 ± 0.3; 0.5	0.2 ± 0.3; 0.3
08-26-99	191	3.2 ± 0.5; 0.8	-
09-02-99	284	3.8 ± 0.4; 0.8	0.1 ± 0.6; 0.6
09-09-99	285	4.6 ± 0.5; 0.9	-
09-16-99	283	3.2 ± 0.4; 0.7	0.0 ± 0.6; 0.6
09-23-99	291	2.4 ± 0.4; 0.6	-
09-30-99	288	2.9 ± 0.4; 0.6	0.1 ± 0.6; 0.6
3rd Qtr. Mean±s.d.		2.8±0.7	0.2±0.2
10-07-99	285	2.3 ± 0.4; 0.6	-
10-14-99	281	2.9 ± 0.4; 0.7	0.1 ± 0.6; 0.6
10-21-99	293	2.9 ± 0.4; 0.6	-
10-28-99	279	2.5 ± 0.4; 0.6	-0.2 ± 0.6; 0.6
11-04-99	285	5.3 ± 0.5; 1.1	-
11-11-99	280	4.2 ± 0.4; 0.9	0.1 ± 0.8; 0.8
11-18-99	285	5.0 ± 0.4; 1.0	-
11-24-99	244	5.4 ± 0.5; 1.1	0.2 ± 0.6; 0.6
12-02-99	324	3.9 ± 0.4; 0.8	-
12-09-99	236[b]	4.0 ± 0.5; 0.8	0.4 ± 0.6; 0.6
12-16-99	288	3.5 ± 0.4; 0.8	-
12-22-99	241	3.6 ± 0.5; 0.8	0.7 ± 0.6; 0.6
12-29-99	286	3.5 ± 0.4; 0.8	-
4th Qtr. Mean±s.d.		3.8±1.0	0.2±0.3

[a] Volume based on two week collection period.

[b] Volume low, possibly due to installation of new power line.

Table 1. Airborne Particulates and Iodine Cartridges

Collection: Air Particulates - Continuous; weekly exchange
Iodine Cartridges - Continuous; biweekly exchange

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

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

L-10 (C) Streator

Date Collected	Volume (m^3)	Gross Beta	I-131[a]
01-07-99	288	3.5 ± 0.4; 0.7	-0.2 ± 0.6; 0.6
01-14-99	285	4.0 ± 0.4; 0.8	-
01-21-99	285	2.2 ± 0.4; 0.5	0.6 ± 0.5; 0.5
01-28-99	284	2.4 ± 0.3; 0.5	-
02-04-99	286	2.6 ± 0.4; 0.6	0.7 ± 0.7; 0.7
02-11-99	282	2.4 ± 0.3; 0.6	-
02-18-99	289	2.0 ± 0.3; 0.5	0.2 ± 0.7; 0.7
02-25-99	292	2.0 ± 0.3; 0.5	-
03-04-99	285	2.2 ± 0.4; 0.5	0.5 ± 0.5; 0.5
03-11-99	285	1.7 ± 0.3; 0.4	-
03-18-99	284	2.9 ± 0.4; 0.6	-0.5 ± 0.9; 0.9
03-25-99	288	2.4 ± 0.3; 0.6	-
1st Qtr. Mean±s.d.		2.5±0.6	0.2±0.5
04-01-99	282	2.5 ± 0.4; 0.6	-0.1 ± 0.5; 0.5
04-08-99	301	2.2 ± 0.4; 0.5	-
04-15-99	271	1.7 ± 0.3; 0.5	-0.3 ± 1.0; 1.0
04-22-99	291	2.0 ± 0.3; 0.5	-
04-29-99	279	2.1 ± 0.4; 0.5	-0.1 ± 0.8; 0.8
05-06-99	280	2.2 ± 0.3; 0.5	-
05-13-99	276	2.0 ± 0.3; 0.5	-1.0 ± 0.8; 0.9
05-20-99	293	2.0 ± 0.3; 0.5	-
05-27-99	286	2.0 ± 0.3; 0.5	-0.1 ± 0.7; 0.7
06-03-99	282	2.0 ± 0.4; 0.5	-
06-10-99	289	2.4 ± 0.3; 0.5	0.6 ± 0.8; 0.8
06-17-99	283	1.5 ± 0.3; 0.4	-
06-24-99	284	3.3 ± 0.4; 0.7	0.1 ± 0.8; 0.8
2nd Qtr. Mean±s.d.		2.1±0.4	-0.1±0.5
07-01-99	285	2.1 ± 0.3; 0.5	-
07-08-99	284	2.3 ± 0.4; 0.6	-0.8 ± 0.7; 0.7
07-15-99	290	2.5 ± 0.4; 0.6	-
07-22-99	279	3.2 ± 0.4; 0.7	-0.6 ± 0.9; 0.9
07-29-99	290	2.7 ± 0.3; 0.6	-
08-05-99	294	2.3 ± 0.4; 0.6	-0.3 ± 0.6; 0.6
08-12-99	290	3.0 ± 0.4; 0.7	-
08-21-99	366	2.7 ± 0.3; 0.6	-0.1 ± 0.4; 0.4
08-26-99	190	3.3 ± 0.5; 0.8	-
09-02-99	284	4.1 ± 0.4; 0.9	0.7 ± 0.7; 0.7
09-09-99	285	4.3 ± 0.4; 0.9	-
09-16-99	282	2.7 ± 0.4; 0.6	-0.2 ± 0.6; 0.6
09-23-99	286	2.7 ± 0.4; 0.6	-
09-30-99	285	3.0 ± 0.4; 0.7	-0.2 ± 0.6; 0.6
3rd Qtr. Mean±s.d.		2.9±0.6	-0.2±0.5
10-07-99	288	2.6 ± 0.4; 0.6	-
10-14-99	282	3.0 ± 0.4; 0.7	0.3 ± 0.6; 0.6
10-21-99	293	2.8 ± 0.4; 0.6	-
10-28-99	279	2.7 ± 0.4; 0.6	-0.6 ± 0.7; 0.7
11-04-99	282	5.2 ± 0.5; 1.1	-
11-11-99	287	3.8 ± 0.4; 0.8	0.0 ± 0.7; 0.7
11-18-99	285	4.7 ± 0.4; 1.0	-
11-24-99	244	5.7 ± 0.5; 1.1	0.4 ± 0.7; 0.7
12-02-99	325	4.8 ± 0.4; 1.0	-
12-09-99	287	2.9 ± 0.4; 0.6	-0.0 ± 0.6; 0.6
12-16-99	288	3.8 ± 0.4; 0.8	-
12-22-99	240	4.1 ± 0.5; 0.9	0.3 ± 0.5; 0.5
12-29-99	283	4.0 ± 0.5; 0.9	-
4th Qtr. Mean±s.d.		3.9±1.0	0.1±0.4

[a] Volume based on two week collection period.

Table 2. Airborne Particulates

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

Sample Description and Concentration

L-01 Nearsite No. 1

1999 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	LAP-2600	LAP-5176	LAP-8273	LAP-10196
Volume	3,428	3,719	4,000	3,666
Mn-54	0.2 ± 4.5; 4.5	-0.2 ± 5.0; 5.0	0.2 ± 3.7; 3.7	-5.5 ± 5.3; 5.4
Fe-59	9.1 ± 10.6; 10.7	-5.1 ± 8.9; 9.0	9.2 ± 81.5; 81.5	14.9 ± 9.3; 9.6
Co-58	-7.1 ± 5.1; 5.3	2.1 ± 6.4; 6.5	1.8 ± 4.1; 4.1	-0.5 ± 5.1; 5.1
Co-60	0.6 ± 5.4; 5.4	1.0 ± 4.9; 4.9	-0.2 ± 1.5; 1.5	4.0 ± 6.5; 6.6
Zn-65	-2.3 ± 9.3; 9.3	1.3 ± 11.6; 11.6	-17.1 ± 10.3; 10.7	5.2 ± 10.1; 10.2
Zr/Nb-95	2.8 ± 9.7; 9.7	-5.9 ± 8.5; 8.5	0.7 ± 6.6; 6.6	-4.0 ± 9.6; 9.6
Cs-134	-0.5 ± 2.5; 2.5	4.4 ± 65.0; 65.0	-2.3 ± 1.2; 1.2	0.6 ± 5.6; 5.6
Cs-137	2.5 ± 4.6; 4.6	2.0 ± 4.6; 4.6	1.2 ± 3.3; 3.3	-0.1 ± 5.0; 5.0
Ba/La-140	-31.4 ± 32.0; 32.5	-27.5 ± 66.0; 66.2	-13.8 ± 26.3; 26.4	-56.4 ± 8.0; 12.9

L-03 Onsite No. 3

1999 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	LAP-2601	LAP-5177	LAP-8274	LAP-10197,8
Volume	3,414	3,714	4,007	3,666
Mn-54	1.4 ± 6.0; 6.0	-3.2 ± 7.7; 7.7	-0.7 ± 3.2; 3.2	0.7 ± 2.9; 2.9
Fe-59	21.1 ± 28.8; 29.0	-7.2 ± 74.7; 74.7	2.2 ± 3.2; 3.2	0.2 ± 5.9; 5.9
Co-58	-4.5 ± 7.3; 7.4	-2.0 ± 9.4; 9.4	0.1 ± 3.8; 3.8	7.1 ± 4.2; 4.4
Co-60	-0.5 ± 29.1; 29.1	-5.0 ± 12.0; 12.0	0.9 ± 0.7; 0.7	1.5 ± 3.5; 3.5
Zn-65	-16.8 ± 15.1; 15.4	-30.9 ± 17.3; 18.2	-5.1 ± 7.3; 7.4	-16.4 ± 7.5; 8.1
Zr/Nb-95	2.7 ± 13.1; 13.1	-3.5 ± 12.0; 12.0	-4.2 ± 6.6; 6.6	-0.2 ± 5.8; 5.8
Cs-134	0.5 ± 2.4; 2.4	3.8 ± 3.1; 3.1	1.7 ± 0.5; 0.6	1.9 ± 3.1; 3.1
Cs-137	-1.6 ± 6.2; 6.2	3.1 ± 7.5; 7.5	0.3 ± 2.8; 2.8	1.6 ± 3.1; 3.1
Ba/La-140	5.8 ± 16.5; 16.5	-24.0 ± 22.1; 22.5	3.1 ± 87.3; 87.3	10.7 ± 4.0; 4.4

Table 2. Airborne Particulates

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

Sample Description and Concentration

L-05 Onsite Station No. 5

1999 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	LAP-2602	LAP-5178	LAP-8275	LAP-10199
Volume	3,421	3,701	4,026	3,474
Mn-54	1.5 ± 5.8; 5.8	0.4 ± 5.6; 5.6	-0.6 ± 4.6; 4.6	1.0 ± 4.8; 4.8
Fe-59	19.8 ± 54.7; 54.8	-3.5 ± 7.5; 7.5	1.1 ± 1.9; 2.0	-8.6 ± 7.8; 8.0
Co-58	1.0 ± 7.1; 7.1	3.4 ± 4.8; 4.8	-0.4 ± 5.9; 5.9	-1.5 ± 4.0; 4.0
Co-60	4.5 ± 8.5; 8.6	1.5 ± 1.9; 1.9	-0.2 ± 0.7; 0.7	3.8 ± 4.7; 4.8
Zn-65	8.9 ± 10.6; 10.7	0.9 ± 13.9; 13.9	-2.5 ± 10.7; 10.7	0.5 ± 8.7; 8.7
Zr/Nb-95	-2.8 ± 9.8; 9.8	0.6 ± 5.2; 5.2	0.3 ± 8.1; 8.1	-1.1 ± 3.9; 4.0
Cs-134	0.8 ± 1.2; 1.2	2.9 ± 14.6; 14.6	-1.6 ± 4.3; 4.3	1.6 ± 4.3; 4.3
Cs-137	1.2 ± 4.7; 4.7	1.2 ± 5.7; 5.7	4.1 ± 4.6; 4.6	-0.4 ± 4.0; 4.0
Ba/La-140	41.1 ± 236.0; 236.1	0.3 ± 2.4; 2.4	6.9 ± 201.0; 201.0	-14.7 ± 5.9; 6.4

L-06 Nearsite No. 6

1999 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	LAP-2603	LAP-5179	LAP-8276	LAP-10200
Volume	3,428	3,707	4,006	3,614
Mn-54	2.0 ± 6.2; 6.2	-5.0 ± 4.7; 4.8	-0.7 ± 3.6; 3.6	1.1 ± 3.3; 3.3
Fe-59	-5.4 ± 5.2; 5.3	4.9 ± 8.3; 8.3	-8.4 ± 74.4; 74.4	2.0 ± 8.9; 8.9
Co-58	-2.3 ± 6.9; 6.9	-0.4 ± 5.7; 5.7	-2.8 ± 4.6; 4.6	-1.6 ± 3.0; 3.0
Co-60	5.7 ± 99.0; 99.0	-0.9 ± 8.1; 8.1	-2.4 ± 23.2; 23.2	4.7 ± 5.1; 5.2
Zn-65	5.8 ± 10.9; 10.9	6.9 ± 9.8; 9.9	-9.0 ± 9.0; 9.1	-7.3 ± 9.1; 9.2
Zr/Nb-95	1.4 ± 12.9; 12.9	-2.1 ± 7.1; 7.1	-8.6 ± 28.5; 28.5	0.5 ± 3.3; 3.3
Cs-134	4.1 ± 9.0; 9.0	0.4 ± 1.6; 1.6	-1.9 ± 1.4; 1.5	-0.5 ± 4.4; 4.4
Cs-137	-2.4 ± 6.0; 6.0	-3.8 ± 3.6; 3.7	-1.9 ± 3.7; 3.7	3.6 ± 3.9; 3.9
Ba/La-140	-25.5 ± 432.0; 432.0	-5.1 ± 69.7; 69.7	-18.5 ± 30.4; 30.6	-2.7 ± 5.2; 5.3

Table 2. Airborne Particulates

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

Sample Description and Concentration

L-10 (C) Streator

1999 Collection Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	LAP-2604	LAP-5180	LAP-8277	LAP-10201
Volume	3,440	3,703	3,998	3,669
Mn-54	-1.5 ± 5.8; 5.8	-2.9 ± 7.4; 7.5	0.3 ± 4.8; 4.8	1.1 ± 3.0; 3.0
Fe-59	10.2 ± 28.2; 28.3	-18.9 ± 196.0; 196.0	-1.3 ± 1.2; 1.3	2.6 ± 6.0; 6.0
Co-58	-2.0 ± 6.7; 6.7	0.6 ± 8.0; 8.0	-4.1 ± 5.5; 5.5	-2.7 ± 3.3; 3.4
Co-60	4.1 ± 7.6; 7.6	-10.0 ± 14.3; 14.4	4.6 ± 5.2; 5.3	2.4 ± 3.5; 3.5
Zn-65	-8.2 ± 12.4; 12.5	-4.2 ± 13.6; 13.6	-0.9 ± 7.7; 7.7	1.6 ± 7.2; 7.2
Zr/Nb-95	2.4 ± 10.7; 10.7	-3.5 ± 10.9; 10.9	-1.8 ± 15.7; 15.7	0.5 ± 3.5; 3.5
Cs-134	1.8 ± 4.1; 4.1	1.3 ± 4.5; 4.5	-0.5 ± 1.0; 1.0	0.2 ± 3.9; 3.9
Cs-137	0.8 ± 4.7; 4.7	-0.7 ± 6.5; 6.5	2.7 ± 3.7; 3.7	2.9 ± 3.0; 3.1
Ba/La-140	-3.8 ± 5.7; 5.7	40.1 ± 57.7; 58.1	-9.3 ± 14.3; 14.4	5.8 ± 4.5; 4.6

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

L-16 (C) Lowery Dairy

Date Collected	01-07-99	02-04-99	03-04-99	04-02-99
Lab Code	LMI-85	LMI-682,3	LMI-1359	LMI-1943
I-131	0.16 ± 0.19; 0.20	0.19 ± 0.21; 0.21	0.18 ± 0.18; 0.19	-0.09 ± 0.17; 0.17
Mn-54	-0.3 ± 2.2; 2.2	-1.3 ± 2.4; 2.4	-2.3 ± 3.1; 3.1	1.2 ± 2.3; 2.3
Fe-59	3.0 ± 32.8; 32.8	0.1 ± 6.6; 6.6	-0.5 ± 5.1; 5.1	1.9 ± 17.5; 17.5
Co-58	0.3 ± 2.1; 2.1	-0.5 ± 2.4; 2.4	-0.7 ± 3.4; 3.4	0.1 ± 2.3; 2.3
Co-60	0.1 ± 0.1; 0.1	-0.1 ± 1.4; 1.4	3.2 ± 4.3; 4.4	-3.0 ± 20.3; 20.3
Zn-65	-7.0 ± 6.0; 6.1	-5.4 ± 5.6; 5.7	-6.5 ± 7.8; 7.8	-6.0 ± 6.0; 6.1
Zr/Nb-95	-0.6 ± 2.7; 2.7	2.2 ± 2.3; 2.3	0.8 ± 0.8; 0.8	1.1 ± 2.6; 2.6
Cs-134	1.6 ± 1.1; 1.1	0.8 ± 1.1; 1.1	-0.4 ± 1.0; 1.0	-1.1 ± 0.9; 0.9
Cs-137	-0.9 ± 2.4; 2.4	0.4 ± 2.3; 2.3	-0.2 ± 3.2; 3.2	1.7 ± 2.5; 2.5
Ba/La-140	-2.5 ± 11.3; 11.3	-2.0 ± 44.6; 44.6	-0.7 ± 9.8; 9.8	1.3 ± 42.7; 42.7

Date Collected	05-06-99	05-20-99	06-03-99	06-17-99
Lab Code	LMI-3102	LMI-3427	LMI-3860	LMI-4269
I-131	-0.14 ± 0.16; 0.16	-0.01 ± 0.16; 0.16	-0.20 ± 0.13; 0.13	0.07 ± 0.21; 0.21
Mn-54	-1.5 ± 3.3; 3.3	-1.1 ± 2.6; 2.6	-0.2 ± 2.6; 2.6	1.0 ± 2.1; 2.1
Fe-59	0.2 ± 1.7; 1.7	2.7 ± 5.5; 5.5	5.9 ± 5.1; 5.1	-0.7 ± 0.8; 0.8
Co-58	1.3 ± 3.5; 3.5	1.3 ± 2.9; 2.9	-2.7 ± 2.8; 2.8	2.6 ± 2.6; 2.6
Co-60	-1.9 ± 17.6; 17.6	1.1 ± 2.4; 2.4	-3.6 ± 3.2; 3.2	-0.1 ± 0.2; 0.2
Zn-65	0.9 ± 9.6; 9.6	-6.2 ± 6.3; 6.4	-3.6 ± 6.7; 6.7	3.1 ± 6.8; 6.8
Zr/Nb-95	-1.8 ± 3.7; 3.7	0.2 ± 2.6; 2.6	0.9 ± 2.6; 2.6	-0.9 ± 2.6; 2.6
Cs-134	1.6 ± 2.1; 2.1	-0.3 ± 0.4; 0.4	-0.5 ± 0.8; 0.8	-0.3 ± 0.3; 0.3
Cs-137	0.2 ± 2.9; 2.9	1.1 ± 2.7; 2.7	2.0 ± 2.7; 2.7	0.3 ± 2.6; 2.6
Ba/La-140	-9.7 ± 46.5; 46.5	-2.1 ± 4.2; 4.2	-0.1 ± 0.4; 0.4	-0.8 ± 0.8; 0.8

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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

L-16 (C) Lowery Dairy

Date Collected	07-01-99	07-15-99	07-29-99	08-12-99
Lab Code	LMI-4632	LMI-5232	NS[a]	LMI-5967
I-131	0.27 ± 0.28; 0.29	-0.14 ± 0.20; 0.20	-	-0.07 ± 0.15; 0.15
Mn-54	0.1 ± 2.3; 2.3	2.0 ± 2.3; 2.3	-	-0.5 ± 2.0; 2.0
Fe-59	0.9 ± 1.3; 1.3	-0.4 ± 1.4; 1.4	-	-2.5 ± 4.5; 4.5
Co-58	-0.2 ± 2.3; 2.3	0.6 ± 2.9; 2.9	-	-0.8 ± 2.4; 2.4
Co-60	1.6 ± 23.5; 23.5	-3.2 ± 52.6; 52.6	-	1.6 ± 3.0; 3.0
Zn-65	-3.6 ± 5.3; 5.4	2.8 ± 6.9; 6.9	-	0.5 ± 5.0; 5.0
Zr/Nb-95	1.2 ± 2.0; 2.0	-0.9 ± 3.2; 3.2	-	-0.7 ± 2.8; 2.8
Cs-134	0.3 ± 0.2; 0.2	-0.7 ± 0.6; 0.6	-	0.2 ± 0.2; 0.2
Cs-137	1.7 ± 2.1; 2.1	0.7 ± 2.8; 2.8	-	-0.8 ± 2.3; 2.3
Ba/La-140	-0.9 ± 4.0; 4.0	-2.8 ± 3.7; 3.7	-	-3.3 ± 2.7; 2.7

Date Collected	08-26-99	09-09-99	09-23-99	10-07-99
Lab Code	LMI-6242,3	LMI-6645	LMI-7010	LMI-7593
I-131	0.00 ± 0.16; 0.16	0.19 ± 0.24; 0.24	-0.03 ± 0.18; 0.18	0.22 ± 0.26; 0.26
Mn-54	-0.7 ± 1.6; 1.6	-0.6 ± 1.9; 1.9	-0.9 ± 2.0; 2.0	3.4 ± 3.4; 3.5
Fe-59	-0.8 ± 13.1; 13.1	0.5 ± 1.0; 1.0	2.4 ± 4.9; 4.9	3.1 ± 89.4; 89.4
Co-58	-0.9 ± 1.6; 1.6	1.8 ± 2.2; 2.3	-0.1 ± 2.0; 2.0	-3.4 ± 3.2; 3.2
Co-60	-0.6 ± 1.6; 1.6	-0.3 ± 1.0; 1.0	-0.6 ± 4.3; 4.3	-1.8 ± 2.7; 2.7
Zn-65	0.2 ± 3.8; 3.8	-5.1 ± 5.9; 5.9	0.9 ± 5.7; 5.7	0.6 ± 7.8; 7.8
Zr/Nb-95	-1.1 ± 1.8; 1.8	0.3 ± 2.3; 2.3	-0.9 ± 2.4; 2.4	2.0 ± 3.6; 3.6
Cs-134	1.3 ± 1.5; 1.5	1.8 ± 1.8; 1.8	-0.5 ± 1.9; 1.9	-0.4 ± 0.4; 0.4
Cs-137	0.1 ± 1.7; 1.7	0.7 ± 2.4; 2.4	-0.8 ± 2.3; 2.3	0.4 ± 3.0; 3.0
Ba/La-140	-0.5 ± 56.8; 56.8	0.1 ± 0.3; 0.3	-0.4 ± 0.9; 0.9	-1.2 ± 6.7; 6.7

[a] NS = No sample. See Section 2.0, page III-5 - Listings of Misssed Samples.

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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

L-16 (C) Lowery Dairy

Date Collected	10-21-99	11-04-99	12-02-99
Lab Code	LMI-8284	LMI-8692	LMI-9282
I-131	-0.01 ± 0.20; 0.20	0.01 ± 0.20; 0.20	0.05 ± 0.14; 0.14
Mn-54	0.3 ± 1.9; 1.9	-0.9 ± 2.1; 2.1	0.4 ± 3.6; 3.6
Fe-59	-2.1 ± 3.9; 3.9	0.2 ± 0.5; 0.5	-0.3 ± 1.8; 1.8
Co-58	-0.7 ± 2.2; 2.2	-0.9 ± 2.2; 2.2	-0.4 ± 3.8; 3.8
Co-60	0.5 ± 1.3; 1.3	-0.3 ± 0.3; 0.3	2.3 ± 4.8; 4.8
Zn-65	3.6 ± 5.2; 5.2	0.7 ± 5.3; 5.3	3.6 ± 9.4; 9.4
Zr/Nb-95	1.2 ± 2.3; 2.3	-1.3 ± 2.4; 2.4	-2.1 ± 4.0; 4.1
Cs-134	0.8 ± 0.6; 0.6	-2.4 ± 40.2; 40.2	0.9 ± 1.6; 1.6
Cs-137	-0.2 ± 2.2; 2.2	0.6 ± 2.3; 2.3	0.1 ± 4.0; 4.0
Ba/La-140	0.8 ± 0.9; 0.9	-1.7 ± 3.8; 3.8	2.5 ± 63.9; 63.9

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

L-35 (C) Marseilles Pool of Illinois River

Date Collected	05-11-99	05-11-99	05-11-99	05-11-99
Lab Code	LF-3265	LF-3266	LF-3267	LF-3268
Type	Carp	Channel Catfish	Smallmouth Buffalo	Quillback
Mn-54	0.8 ± 0.9; 0.9	-0.1 ± 1.0; 1.0	0.1 ± 1.4; 1.4	0.0 ± 1.0; 1.0
Fe-59	-0.9 ± 1.4; 1.4	0.3 ± 0.6; 0.6	-0.1 ± 1.9; 1.9	-1.5 ± 4.8; 4.8
Co-58	0.7 ± 1.0; 1.0	-0.5 ± 1.1; 1.1	-1.1 ± 1.7; 1.7	-0.2 ± 1.3; 1.3
Co-60	-0.8 ± 17.6; 17.6	0.7 ± 3.3; 3.3	0.3 ± 0.6; 0.6	-0.2 ± 2.3; 2.3
Zn-65	1.8 ± 2.3; 2.3	0.5 ± 2.3; 2.3	-0.8 ± 3.8; 3.8	-1.2 ± 3.4; 3.4
Zr/Nb-95	-0.8 ± 1.2; 1.2	0.1 ± 1.1; 1.1	-0.3 ± 0.9; 0.9	0.2 ± 1.4; 1.4
Cs-134	0.1 ± 0.4; 0.4	0.2 ± 0.2; 0.2	0.2 ± 0.4; 0.4	0.4 ± 4.5; 4.5
Cs-137	0.2 ± 0.9; 0.9	0.4 ± 0.8; 0.8	0.3 ± 1.4; 1.4	-0.1 ± 1.0; 1.0
Ba/La-140	-0.4 ± 0.7; 0.7	-3.4 ± 9.0; 9.1	-3.5 ± 4.4; 4.4	-0.4 ± 0.9; 0.9

Date Collected	05-11-99	10-05-99	10-05-99	10-05-99
Lab Code	LF-3269	LF-7482	LF-7483	LF-7484
Type	Freshwater Drum	Channel Catfish	Smallmouth Buffalo	Carp
Mn-54	-0.4 ± 1.6; 1.6	-0.1 ± 0.5; 0.5	0.2 ± 0.9; 0.9	-0.4 ± 0.9; 0.9
Fe-59	1.0 ± 1.5; 1.5	-1.5 ± 2.5; 2.5	-1.6 ± 3.6; 3.6	-0.3 ± 2.3; 2.3
Co-58	0.1 ± 1.8; 1.8	0.3 ± 0.9; 0.9	0.2 ± 1.0; 1.0	0.1 ± 0.8; 0.8
Co-60	0.5 ± 0.6; 0.6	0.2 ± 0.9; 0.9	0.3 ± 1.2; 1.2	-0.1 ± 0.4; 0.4
Zn-65	1.7 ± 2.8; 2.8	-1.2 ± 1.5; 1.5	-1.1 ± 2.1; 2.1	-0.5 ± 2.3; 2.3
Zr/Nb-95	-0.1 ± 0.9; 0.9	-0.8 ± 1.8; 1.8	0.3 ± 1.0; 1.0	-0.4 ± 0.9; 0.9
Cs-134	-0.2 ± 0.4; 0.4	0.2 ± 0.3; 0.3	1.0 ± 7.1; 7.1	0.4 ± 5.2; 5.2
Cs-137	0.5 ± 1.4; 1.4	0.1 ± 0.5; 0.5	0.2 ± 0.8; 0.8	0.1 ± 0.8; 0.8
Ba/La-140	0.4 ± 2.5; 2.5	-17.1 ± 37.3; 37.4	-0.2 ± 4.1; 4.1	-1.5 ± 3.8; 3.8

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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	
L-35 (C) Marseilles Pool of Illinois River	
Date Collected	10-05-99
Lab Code	LF-7485
Type	Gizzard Shad
Mn-54	0.6 ± 1.5; 1.5
Fe-59	2.0 ± 2.5; 2.5
Co-58	0.8 ± 1.4; 1.4
Co-60	-0.9 ± 2.7; 2.7
Zn-65	-1.1 ± 4.0; 4.0
Zr/Nb-95	-0.4 ± 1.8; 1.8
Cs-134	0.2 ± 0.2; 0.2
Cs-137	1.2 ± 1.4; 1.4
Ba/La-140	-1.6 ± 6.4; 6.4

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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

L-36 Illinois River, Upstream of Discharge

Date Collected	05-11-99	05-11-99	05-11-99	05-11-99
Lab Code	LF-3270	LF-3271	LF-3272	LF-3273
Type	Carp	Channel Catfish	Smallmouth Buffalo	Freshwater Drum
Mn-54	0.6 ± 1.4; 1.4	-0.2 ± 1.0; 1.0	0.3 ± 1.2; 1.2	0.3 ± 0.9; 0.9
Fe-59	0.3 ± 0.7; 0.7	-0.5 ± 2.4; 2.4	-1.5 ± 1.5; 1.5	-1.1 ± 2.3; 2.3
Co-58	1.4 ± 1.6; 1.7	-0.1 ± 1.1; 1.1	-1.0 ± 1.2; 1.2	-0.4 ± 1.1; 1.1
Co-60	-1.3 ± 1.1; 1.2	0.8 ± 4.6; 4.6	-1.1 ± 2.3; 2.3	0.4 ± 0.8; 0.8
Zn-65	-1.0 ± 2.9; 2.9	1.1 ± 2.5; 2.5	1.2 ± 3.2; 3.2	-0.2 ± 2.3; 2.3
Zr/Nb-95	-1.4 ± 2.0; 2.0	1.1 ± 1.1; 1.1	0.3 ± 1.6; 1.6	-0.4 ± 1.0; 1.0
Cs-134	0.2 ± 0.4; 0.4	-0.6 ± 2.1; 2.1	0.7 ± 5.1; 5.1	-0.1 ± 0.1; 0.1
Cs-137	0.3 ± 1.3; 1.3	0.4 ± 1.0; 1.0	0.6 ± 1.0; 1.0	0.1 ± 1.0; 1.0
Ba/La-140	3.9 ± 28.0; 28.0	0.7 ± 53.3; 53.3	-2.4 ± 5.3; 5.3	0.4 ± 2.9; 2.9

Date Collected	10-05-99	10-05-99	10-05-99	10-05-99
Lab Code	LF-7477	LF-7478,9	LF-7480	LF-7481
Type	Carp	Channel Catfish	Smallmouth Buffalo	Freshwater Drum
Mn-54	0.2 ± 0.6; 0.6	-0.2 ± 0.7; 0.7	0.3 ± 0.9; 0.9	0.4 ± 0.5; 0.5
Fe-59	-2.4 ± 8.9; 8.9	0.8 ± 5.3; 5.3	0.3 ± 11.6; 11.6	0.7 ± 3.7; 3.7
Co-58	0.2 ± 0.7; 0.7	0.1 ± 0.7; 0.7	0.1 ± 0.8; 0.8	-0.1 ± 0.5; 0.5
Co-60	-0.3 ± 1.5; 1.5	0.5 ± 2.5; 2.5	-0.4 ± 10.0; 10.0	0.4 ± 4.6; 4.6
Zn-65	1.3 ± 2.0; 2.0	-1.1 ± 1.8; 1.8	0.3 ± 2.4; 2.4	0.5 ± 1.2; 1.2
Zr/Nb-95	0.3 ± 0.8; 0.8	0.4 ± 0.7; 0.7	-0.4 ± 0.9; 0.9	-0.3 ± 0.3; 0.3
Cs-134	0.4 ± 0.5; 0.5	0.1 ± 2.0; 2.0	0.3 ± 1.7; 1.7	-0.4 ± 13.3; 13.3
Cs-137	-0.2 ± 0.7; 0.7	-0.3 ± 0.6; 0.6	-0.1 ± 0.9; 0.9	-0.0 ± 0.6; 0.6
Ba/La-140	2.3 ± 1.2; 1.2	-0.0 ± 1.0; 1.0	-1.6 ± 8.1; 8.1	0.0 ± 0.1; 0.1

Table 5. Bottom Sediments [a]

Collection: Semiannually

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

Other LLDs: Mn-54 = 0.10; Fe-59 = 0.60; Co-58, Co-60 = 0.10; Zn-65 = 0.60; Zr/Nb-95 = 0.20; Ba/La-140 = 0.60 pCi/g dry weight

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

Sample Description and Concentration

L-40 Illinois River Downstream

Date Collected	05-27-99	10-07-99
Lab Code	LBS-3648	LBS-7613
Mn-54	-0.0 ± 1.1; 1.1	-0.2 ± 1.4; 1.4
Fe-59	-2.2 ± 11.4; 11.4	0.5 ± 1.2; 1.2
Co-58	0.6 ± 1.4; 1.4	0.9 ± 1.6; 1.6
Co-60	0.1 ± 0.3; 0.3	1.2 ± 4.7; 4.7
Zn-65	-6.7 ± 3.0; 3.1	-8.6 ± 4.0; 4.1
Zr/Nb-95	-1.2 ± 2.2; 2.2	-1.7 ± 1.3; 1.3
Cs-134	1.5 ± 6.8; 6.8	0.8 ± 0.9; 0.9
Cs-137	0.9 ± 1.2; 1.2	2.7 ± 1.5; 1.5
Ba/La-140	-1.0 ± 1.4; 1.4	-6.6 ± 4.2; 4.3

L-41 Illinois River Downstream

Date Collected	05-27-99	10-07-99
Lab Code	LBS-3649	LBS-7614
Mn-54	0.6 ± 0.9; 0.9	0.5 ± 1.3; 1.3
Fe-59	0.6 ± 1.0; 1.0	-0.1 ± 0.7; 0.7
Co-58	0.3 ± 1.2; 1.2	0.4 ± 1.4; 1.4
Co-60	0.2 ± 0.5; 0.5	1.3 ± 22.5; 22.5
Zn-65	-4.3 ± 2.6; 2.6	-1.2 ± 3.0; 3.0
Zr/Nb-95	-1.0 ± 1.7; 1.7	0.2 ± 0.1; 0.1
Cs-134	2.2 ± 2.8; 2.8	2.9 ± 14.3; 14.3
Cs-137	1.5 ± 1.0; 1.1	2.2 ± 1.4; 1.4
Ba/La-140	-4.9 ± 4.0; 4.0	-1.1 ± 1.0; 1.0

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		
	L-Control (C) Eugene Clements	
Date Collected	08-26-99	08-26-99
Lab Code	LVE-6252 [a]	LVE-6253 [a]
Type	Beets	Beet Greens
I-131	-0.49 ± 1.09; 1.09	0.52 ± 2.60; 2.60
Mn-54	0.4 ± 0.6; 0.6	0.0 ± 0.7; 0.7
Fe-59	0.4 ± 1.2; 1.2	-0.9 ± 8.7; 8.7
Co-58	0.6 ± 0.7; 0.7	0.0 ± 0.7; 0.7
Co-60	0.6 ± 0.7; 0.7	-0.2 ± 3.9; 3.9
Zn-65	0.2 ± 1.6; 1.6	-0.8 ± 1.6; 1.6
Zr/Nb-95	-0.1 ± 0.6; 0.6	0.8 ± 0.8; 0.8
Cs-134	0.5 ± 7.3; 7.3	0.6 ± 0.6; 0.6
Cs-137	0.1 ± 0.7; 0.7	0.3 ± 0.7; 0.7
Ba/La-140	-0.5 ± 1.6; 1.6	-0.0 ± 0.0; 0.0
	L-Quad 1 Diane Partridge	
Date Collected	08-26-99	08-26-99
Lab Code	LVE-6254 [a]	LVE-6255 [a]
Type	Beets	Cabbage
I-131	0.30 ± 0.59; 0.59	0.39 ± 14.20; 14.20
Mn-54	-0.1 ± 0.6; 0.6	0.0 ± 0.7; 0.7
Fe-59	-1.4 ± 2.2; 2.2	0.4 ± 0.6; 0.6
Co-58	-0.4 ± 0.6; 0.6	0.4 ± 0.7; 0.7
Co-60	-0.2 ± 0.9; 0.9	-1.1 ± 7.9; 7.9
Zn-65	-0.9 ± 1.4; 1.4	-1.4 ± 1.8; 1.8
Zr/Nb-95	0.5 ± 0.6; 0.6	0.1 ± 0.6; 0.6
Cs-134	0.5 ± 0.3; 0.3	0.1 ± 0.2; 0.2
Cs-137	0.4 ± 0.6; 0.6	0.1 ± 0.7; 0.7
Ba/La-140	-0.1 ± 0.3; 0.3	0.2 ± 0.7; 0.7

[a] ODCM-required. Beet greens, cabbage = broad leaf; beets = root vegetation.

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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

L-Quad 2 Mike & Gina Welbourne

Date Collected	08-26-99	08-26-99
Lab Code	LVE-6256 [a]	LVE-6257 [a]
Type	Potatoes	Cabbage
I-131	0.36 ± 1.87; 1.87	0.12 ± 0.16; 0.16
Mn-54	-0.3 ± 0.6; 0.6	0.2 ± 0.6; 0.6
Fe-59	-0.1 ± 1.1; 1.1	-0.4 ± 1.5; 1.5
Co-58	0.4 ± 0.6; 0.6	0.0 ± 0.6; 0.6
Co-60	-0.1 ± 0.2; 0.2	-0.2 ± 1.3; 1.3
Zn-65	-3.1 ± 1.7; 1.8	-0.5 ± 1.6; 1.6
Zr/Nb-95	-0.2 ± 0.7; 0.7	-0.7 ± 1.3; 1.3
Cs-134	0.2 ± 0.2; 0.2	0.1 ± 3.6; 3.6
Cs-137	0.4 ± 0.6; 0.6	0.6 ± 0.6; 0.6
Ba/La-140	0.4 ± 0.9; 0.9	0.1 ± 2.2; 2.2

L-Quad 3 Michael Olson

Date Collected	08-26-99	08-26-99
Lab Code	LVE-6258 [a]	LVE-6259 [a]
Type	Beets	Cabbage
I-131	-0.01 ± 0.02; 0.02	-0.70 ± 1.94; 1.94
Mn-54	-0.2 ± 0.4; 0.4	0.1 ± 0.6; 0.6
Fe-59	-0.7 ± 2.7; 2.7	0.9 ± 22.2; 22.2
Co-58	0.0 ± 0.4; 0.4	0.0 ± 0.7; 0.7
Co-60	-0.4 ± 2.3; 2.3	-0.2 ± 0.9; 0.9
Zn-65	-0.4 ± 1.1; 1.1	-0.2 ± 1.6; 1.6
Zr/Nb-95	-0.1 ± 0.4; 0.4	-0.0 ± 0.6; 0.6
Cs-134	-0.1 ± 0.4; 0.4	0.2 ± 0.4; 0.4
Cs-137	-0.2 ± 0.4; 0.4	-0.3 ± 0.7; 0.7
Ba/La-140	-0.2 ± 0.4; 0.4	-0.0 ± 0.2; 0.2

[a] ODCM-required. Cabbage = broad leaf; potatoes, beets = root vegetation.

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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		
	L-Quad 4 Robert Eisers	
Date Collected	08-26-99	08-26-99
Lab Code	LVE-6260 [a]	LVE-6261 [a]
Type	Potatoes	Cabbage
I-131	0.60 ± 1.70; 1.70	-0.28 ± 1.31; 1.31
Mn-54	-0.4 ± 0.9; 0.9	0.4 ± 0.7; 0.7
Fe-59	-1.8 ± 1.7; 1.7	0.2 ± 0.3; 0.3
Co-58	0.3 ± 1.0; 1.0	-0.7 ± 0.6; 0.6
Co-60	-0.8 ± 4.1; 4.1	0.7 ± 2.2; 2.2
Zn-65	-1.2 ± 2.6; 2.6	0.3 ± 1.7; 1.7
Zr/Nb-95	-0.9 ± 1.0; 1.0	-0.3 ± 0.6; 0.7
Cs-134	-0.8 ± 0.7; 0.7	-0.1 ± 0.5; 0.5
Cs-137	-0.1 ± 1.0; 1.0	-0.5 ± 0.7; 0.7
Ba/La-140	-0.9 ± 1.1; 1.1	-0.1 ± 0.8; 0.8

[a] ODCM-required. Cabbage = broad leaf, potatoes = root vegetation.

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

L-21 (C) Illinois River at Seneca

1999 Collection Period	January	February	March
Lab Code	LSW-578	LSW-1298	LSW-2268
Gross Beta	6.6 ± 1.9 ; 2.1	3.6 ± 1.8 ; 1.9	7.2 ± 1.9 ; 2.2
Mn-54	-0.8 ± 1.4; 1.4	0.2 ± 2.1; 2.1	-2.8 ± 3.6; 3.6
Fe-59	1.5 ± 6.3; 6.3	2.6 ± 20.4; 20.4	-2.4 ± 5.8; 5.8
Co-58	-1.4 ± 1.4; 1.4	-1.9 ± 2.2; 2.2	0.9 ± 3.6; 3.6
Co-60	0.1 ± 0.1; 0.1	3.1 ± 3.8; 3.8	0.9 ± 1.1; 1.1
Zn-65	-2.8 ± 2.4; 2.5	-1.7 ± 4.5; 4.5	-1.1 ± 3.8; 3.8
Zr/Nb-95	0.4 ± 1.5; 1.5	0.1 ± 2.3; 2.3	1.8 ± 3.8; 3.8
Cs-134	0.6 ± 0.3; 0.4	2.8 ± 12.1; 12.1	-0.3 ± 0.8; 0.8
Cs-137	0.9 ± 1.5; 1.5	1.2 ± 2.3; 2.3	-0.7 ± 3.2; 3.2
Ba/La-140	-1.2 ± 6.9; 6.9	-0.9 ± 7.6; 7.6	-3.0 ± 39.9; 39.9

1999 Collection Period	April	May	June
Lab Code	LSW-3032	LSW-4143	LSW-4711
Gross Beta	5.2 ± 1.8 ; 1.9	4.5 ± 1.2 ; 1.3	8.1 ± 2.0 ; 2.3
Mn-54	-1.7 ± 3.7; 3.7	-1.0 ± 1.9; 1.9	0.6 ± 1.3; 1.3
Fe-59	-9.1 ± 11.8; 11.9	-0.4 ± 1.8; 1.8	2.8 ± 7.8; 7.8
Co-58	-2.5 ± 4.0; 4.0	-0.3 ± 2.4; 2.4	-1.1 ± 1.5; 1.5
Co-60	2.1 ± 8.1; 8.1	0.5 ± 0.4; 0.4	0.6 ± 1.8; 1.8
Zn-65	-5.0 ± 8.6; 8.7	1.5 ± 4.2; 4.2	-3.1 ± 3.2; 3.2
Zr/Nb-95	-0.2 ± 4.6; 4.6	-0.9 ± 3.1; 3.1	-0.3 ± 2.0; 2.0
Cs-134	-0.6 ± 0.9; 0.9	0.8 ± 4.1; 4.1	0.9 ± 3.6; 3.6
Cs-137	1.8 ± 3.7; 3.7	0.8 ± 2.1; 2.1	0.1 ± 1.5; 1.5
Ba/La-140	2.1 ± 3.3; 3.3	-4.8 ± 7.5; 7.5	-0.4 ± 2.5; 2.5

Table 7. Surface Water

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

Sample Description and Concentration

L-21 (C) Illinois River at Seneca

1999 Collection Period	July	August	September
Lab Code	LSW-5726	LSW-6469	LSW-7730
Gross Beta	5.2 ± 1.7 ; 1.9	8.6 ± 1.9 ; 2.3	9.6 ± 2.0 ; 2.5
Mn-54	-0.4 ± 1.6; 1.6	0.4 ± 1.7; 1.7	-1.0 ± 2.0; 2.0
Fe-59	1.0 ± 7.4; 7.4	-0.6 ± 4.7; 4.7	3.8 ± 17.2; 17.2
Co-58	-0.7 ± 1.6; 1.6	-0.4 ± 2.2; 2.2	0.4 ± 2.3; 2.3
Co-60	0.7 ± 1.6; 1.6	-0.6 ± 4.2; 4.2	1.5 ± 6.8; 6.8
Zn-65	-0.1 ± 3.4; 3.4	-0.6 ± 3.4; 3.4	-6.2 ± 5.3; 5.4
Zr/Nb-95	-2.9 ± 18.7; 18.7	1.6 ± 2.7; 2.7	0.8 ± 2.5; 2.5
Cs-134	-0.6 ± 0.9; 0.9	-0.1 ± 0.2; 0.2	0.6 ± 0.5; 0.5
Cs-137	-0.4 ± 1.5; 1.5	-0.7 ± 2.0; 2.0	1.4 ± 2.3; 2.3
Ba/La-140	-0.1 ± 0.2; 0.2	-0.4 ± 6.3; 6.3	-0.6 ± 5.9; 5.9

1999 Collection Period	October	November	December
Lab Code	LSW-8734	LSW-9344	LSW-9964,5
Gross Beta	4.3 ± 2.0 ; 2.1	8.3 ± 2.0 ; 2.3	6.9 ± 1.3 ; 1.5
Mn-54	-0.3 ± 0.8; 0.8	-3.2 ± 3.9; 3.9	0.1 ± 1.7; 1.7
Fe-59	-0.7 ± 2.6; 2.6	0.4 ± 1.8; 1.8	2.7 ± 3.1; 3.1
Co-58	0.2 ± 0.8; 0.8	0.8 ± 3.6; 3.6	-1.3 ± 1.6; 1.6
Co-60	0.5 ± 0.6; 0.6	0.5 ± 1.4; 1.4	0.1 ± 1.7; 1.7
Zn-65	-3.9 ± 1.7; 1.8	-2.8 ± 6.6; 6.6	-1.0 ± 3.5; 3.5
Zr/Nb-95	-0.0 ± 1.2; 1.2	4.6 ± 4.5; 4.5	-0.9 ± 1.8; 1.8
Cs-134	-3.5 ± 16.8; 16.8	0.5 ± 0.6; 0.6	-0.7 ± 1.8; 1.8
Cs-137	-0.3 ± 0.8; 0.8	-0.1 ± 3.7; 3.7	-0.5 ± 1.9; 1.9
Ba/La-140	-2.4 ± 4.1; 4.1	0.3 ± 0.4; 0.4	0.2 ± 1.6; 1.6

Table 7. Surface Water

Collection: Monthly composites of weekly collections

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

Units: pCi/L

Sample Description and Concentration

L-40 Illinois River Downstream

1999 Collection Period	January	February	March
Lab Code	LSW-579	LSW-1299	LSW-2269
Gross Beta	6.3 ± 1.8 ; 2.1	3.6 ± 1.8 ; 1.9	6.0 ± 1.7 ; 2.0
Mn-54	-1.1 ± 2.0; 2.0	0.5 ± 2.3; 2.3	0.2 ± 2.0; 2.0
Fe-59	-1.7 ± 2.4; 2.4	0.3 ± 0.9; 0.9	-2.5 ± 8.5; 8.5
Co-58	1.7 ± 2.2; 2.2	-0.8 ± 2.2; 2.2	-0.4 ± 2.5; 2.5
Co-60	-0.2 ± 2.0; 2.0	0.3 ± 0.8; 0.8	-0.4 ± 1.4; 1.4
Zn-65	0.3 ± 3.9; 3.9	-2.9 ± 5.3; 5.3	-2.6 ± 5.2; 5.2
Zr/Nb-95	-0.7 ± 2.4; 2.4	2.4 ± 2.8; 2.8	1.2 ± 2.6; 2.6
Cs-134	0.6 ± 2.4; 2.4	1.0 ± 0.8; 0.8	1.0 ± 3.4; 3.4
Cs-137	1.7 ± 1.9; 1.9	0.2 ± 2.6; 2.6	1.0 ± 2.5; 2.5
Ba/La-140	-0.8 ± 2.0; 2.0	2.1 ± 7.3; 7.3	-3.1 ± 4.8; 4.8

1999 Collection Period	April	May	June
Lab Code	LSW-3033	LSW-4144	LSW-4712
Gross Beta	3.4 ± 1.5 ; 1.6	3.5 ± 1.2 ; 1.3	4.5 ± 1.6 ; 1.8
Mn-54	-3.6 ± 3.6; 3.6	1.2 ± 1.6; 1.6	-0.6 ± 2.1; 2.1
Fe-59	2.1 ± 3.7; 3.7	1.5 ± 16.6; 16.6	0.6 ± 0.8; 0.8
Co-58	1.5 ± 3.4; 3.4	-0.6 ± 1.9; 1.9	2.4 ± 2.6; 2.6
Co-60	0.6 ± 4.4; 4.4	2.2 ± 28.9; 28.9	1.1 ± 8.1; 8.1
Zn-65	-0.7 ± 7.9; 7.9	-0.7 ± 3.8; 3.8	-1.8 ± 5.2; 5.2
Zr/Nb-95	-0.1 ± 4.7; 4.7	2.7 ± 2.6; 2.6	-2.4 ± 3.1; 3.1
Cs-134	0.8 ± 2.2; 2.2	-0.4 ± 1.0; 1.0	-0.5 ± 0.5; 0.5
Cs-137	0.9 ± 3.7; 3.7	-0.0 ± 1.6; 1.6	0.7 ± 2.4; 2.4
Ba/La-140	2.0 ± 7.1; 7.1	3.4 ± 8.2; 8.2	-5.7 ± 63.6; 63.6

Table 7. Surface Water

Collection: Monthly composites of weekly collections

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

Units: pCi/L

Sample Description and Concentration

L-40 Illinois River Downstream

1999 Collection Period	July	August	September
Lab Code	LSW-5727	LSW-6470	LSW-7731
Gross Beta	6.1 ± 1.8 ; 2.1	5.4 ± 1.7 ; 1.9	7.3 ± 1.9 ; 2.2
Mn-54	0.8 ± 3.2; 3.2	1.4 ± 3.1; 3.1	0.2 ± 1.4; 1.4
Fe-59	10.9 ± 5.7; 5.9	9.4 ± 22.4; 22.4	-0.6 ± 3.8; 3.8
Co-58	2.1 ± 2.9; 3.0	1.7 ± 3.7; 3.7	-0.2 ± 1.5; 1.5
Co-60	0.9 ± 0.6; 0.6	1.6 ± 2.8; 2.8	-0.4 ± 0.6; 0.6
Zn-65	-1.2 ± 7.5; 7.5	-0.8 ± 6.5; 6.5	0.3 ± 3.2; 3.2
Zr/Nb-95	-0.3 ± 3.4; 3.4	-2.0 ± 4.8; 4.8	-0.4 ± 2.1; 2.1
Cs-134	3.7 ± 47.8; 47.8	-1.4 ± 3.1; 3.1	0.7 ± 0.5; 0.5
Cs-137	2.2 ± 3.1; 3.1	1.2 ± 3.8; 3.8	-0.8 ± 1.7; 1.7
Ba/La-140	-5.6 ± 7.5; 7.5	-1.0 ± 5.0; 5.0	-0.3 ± 0.8; 0.8

1999 Collection Period	October	November	December
Lab Code	LSW-8735	LSW-9345	LSW-9966
Gross Beta	4.8 ± 2.0 ; 2.2	8.2 ± 2.0 ; 2.3	5.9 ± 1.7 ; 1.9
Mn-54	0.2 ± 0.9; 0.9	3.2 ± 2.8; 2.8	1.2 ± 1.8; 1.8
Fe-59	1.5 ± 10.0; 10.0	-3.8 ± 5.9; 5.9	-1.7 ± 3.5; 3.5
Co-58	-0.4 ± 1.0; 1.0	0.8 ± 4.0; 4.0	-0.3 ± 1.9; 1.9
Co-60	0.3 ± 1.8; 1.8	-1.1 ± 5.6; 5.6	3.4 ± 2.1; 2.1
Zn-65	-5.4 ± 2.2; 2.3	3.5 ± 8.6; 8.6	-0.1 ± 4.2; 4.2
Zr/Nb-95	0.0 ± 1.4; 1.4	2.6 ± 4.2; 4.2	-5.3 ± 4.7; 4.7
Cs-134	-2.5 ± 4.0; 4.0	0.2 ± 0.2; 0.2	1.8 ± 2.3; 2.3
Cs-137	-0.3 ± 0.9; 0.9	-0.6 ± 3.7; 3.7	1.6 ± 2.1; 2.1
Ba/La-140	-0.6 ± 1.3; 1.3	1.6 ± 15.0; 15.0	-2.3 ± 2.3; 2.3

Table 7. Surface Water

Collection: Quarterly composites of weekly collections

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

Units: pCi/L

1999 Collection Period	Sample Description and Concentration	
	Lab Code	Tritium
	L-21 (C) Illinois River at Seneca	
1st Quarter	LSW- 2301	482 ± 99; 118
2nd Quarter	LSW- 4506	256 ± 97; 103
3rd Quarter	LSW- 7282	278 ± 103; 109
4th Quarter	LSW- 9909	323 ± 99; 108
	L-40 Illinois River Downstream	
1st Quarter	LSW- 2302	353 ± 94; 105
2nd Quarter	LSW- 4507	215 ± 95; 100
3rd Quarter	LSW- 7283	193 ± 99; 103
4th Quarter	LSW- 9910	567 ± 108; 133

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

L-27 LSCS Onsite Well at Station

Date Collected	01-07-99	04-03-99	07-01-99	10-07-99
Lab Code	LWW-88	LWW-2004	LWW-4684	LWW-7611
H-3	21 ± 83; 83	50 ± 84; 84	-32 ± 80; 80	-172 ± 83; 86
Mn-54	-0.1 ± 1.7; 1.7	0.3 ± 1.8; 1.8	0.5 ± 2.2; 2.2	-0.1 ± 1.8; 1.8
Fe-59	1.2 ± 2.9; 2.9	-6.9 ± 9.6; 9.7	-0.6 ± 1.6; 1.6	-5.2 ± 11.8; 11.8
Co-58	-1.8 ± 1.9; 1.9	0.1 ± 2.1; 2.1	2.6 ± 2.3; 2.3	-1.6 ± 2.4; 2.4
Co-60	0.0 ± 0.1; 0.1	0.3 ± 2.3; 2.3	-1.4 ± 20.0; 20.0	-0.7 ± 0.9; 0.9
Zn-65	-8.4 ± 4.2; 4.4	-3.7 ± 5.9; 5.9	-0.6 ± 3.9; 3.9	0.2 ± 3.8; 3.8
Zr/Nb-95	-2.9 ± 2.1; 2.1	-0.8 ± 3.7; 3.7	0.2 ± 2.9; 2.9	-1.4 ± 2.8; 2.8
Cs-134	-1.1 ± 0.4; 0.5	1.1 ± 0.8; 0.9	1.1 ± 3.1; 3.1	0.9 ± 0.4; 0.4
Cs-137	-0.8 ± 1.9; 1.9	-0.2 ± 2.1; 2.1	-0.8 ± 2.1; 2.1	-1.1 ± 1.9; 1.9
Ba/La-140	1.0 ± 5.3; 5.3	0.6 ± 1.7; 1.7	-4.2 ± 8.0; 8.0	4.1 ± 6.0; 6.0

L-28 Marseilles Well

Date Collected	01-07-99	04-03-99	07-01-99	10-07-99
Lab Code	LWW-89	LWW-2005	LWW-4685	LWW-7612
H-3	27 ± 83; 83	7 ± 82; 82	-68 ± 78; 79	-95 ± 87; 88
Mn-54	1.3 ± 1.3; 1.3	-1.1 ± 2.2; 2.2	0.0 ± 1.6; 1.6	1.0 ± 2.1; 2.1
Fe-59	2.1 ± 4.0; 4.0	-1.0 ± 2.2; 2.2	1.1 ± 7.1; 7.1	2.1 ± 5.5; 5.5
Co-58	0.4 ± 1.3; 1.3	-0.5 ± 2.3; 2.3	-0.2 ± 1.8; 1.8	-1.4 ± 2.5; 2.5
Co-60	2.2 ± 3.9; 3.9	-0.5 ± 1.4; 1.4	-0.1 ± 1.8; 1.8	0.1 ± 1.1; 1.1
Zn-65	-0.1 ± 3.3; 3.3	4.8 ± 4.4; 4.5	-2.0 ± 3.6; 3.6	-10.8 ± 5.8; 6.0
Zr/Nb-95	-1.4 ± 1.7; 1.7	0.3 ± 2.7; 2.7	-0.4 ± 2.4; 2.4	-2.5 ± 3.3; 3.4
Cs-134	0.3 ± 0.3; 0.3	0.3 ± 5.8; 5.8	0.3 ± 0.6; 0.6	0.3 ± 0.2; 0.2
Cs-137	0.6 ± 1.5; 1.5	1.7 ± 2.3; 2.3	0.1 ± 1.7; 1.7	2.2 ± 2.5; 2.5
Ba/La-140	-0.0 ± 0.0; 0.0	1.2 ± 2.8; 2.8	3.4 ± 15.0; 15.0	0.6 ± 0.8; 0.8

MILCH ANIMALS, NEAREST LIVESTOCK, AND NEAREST RESIDENCES CENSUS

LASALLE

MILCH ANIMALS CENSUS, 1999

Sampling Locations

L-16 Lowrey Dairy
8.2 miles, Sector F
ground grain, hay and silage; no pasture

Bettenhausen Farm
8.5 miles, Sector J
5% or less pasture, ground grain, silage and hay

Census conducted by A. Lewis on August 29, 1999

LASALLE

NEAREST LIVESTOCK CENSUS, 1999

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

Sector	Direction	Distance
A	N	4.0 miles
B	NNE	1.7 miles
C	NE	3.5 miles
D	ENE	3.1 miles
E	E	None
F	ESE	None
G	SE	4.7 miles
H	SSE	4.7 miles
J	S	4.7 miles
K	SSW	None
L	SW	5.8 miles
M	WSW	None
N	W	3.0 miles
P	WNW	3.0 miles
Q	NW	4.0 miles
R	NNW	4.6 miles

Census conducted by A. Lewis on August 29, 1999

LASALLE

NEAREST RESIDENCE CENSUS, 1999

Nearest resident of the LaSalleStation within a 6.2 mile radius.

Sector	Direction	Distance
A	N	3.9 miles
B	NNE	1.6 miles
C	NE	2.1 miles
D	ENE	3.3 miles
E	E	3.2 miles
F	ESE	1.4 miles
G	SE	1.7 miles
H	SSE	1.8 miles
J	S	1.5 miles
K	SSW	0.7 miles
L	SW	1.0 miles
M	WSW	1.5 miles
N	W	0.8 miles
P	WNW	0.9 miles
Q	NW	1.8 miles
R	NNW	1.7 miles

Census conducted by A. Lewis on August 29, 1999

4.0 TLD DATA*

*TLD Data provided by Commonwealth Edison Company.

Commonwealth Edison Company

Date: 27-JAN-00

Environmental Site Report V4 for LaSalle

Gamma Radiation Measured in mR by TLDs

Site	Description	Quarter 1 1999	Quarter 2 1999	Quarter 3 1999	Quarter 4 1999
I. INDICATOR LOCATIONS					
a. Air Samplers					
L-01-1	NEARSITE NO.1	17.5	19.7	18.5	17.9
L-01-2	NEARSITE NO.1	17.3	18.6	17.8	18.8
L-03-1	ONSITE NO.3	16.5	16.2	15.7	16.9
L-03-2	ONSITE NO.3	15.6	16.9	17.8	16.3
L-04-1	ONSITE NO.4	15.5	16.9	17.5	16.4
L-04-2	ONSITE NO.4	15.5	17.1	16.0	15.3
L-05-1	ONSITE NO.5	15.5	18.1	18.2	18.2
L-05-2	ONSITE NO.5	15.3	17.2	17.4	16.4
L-06-1	NEARSITE NO.6	16.7	18.2	17.9 #	18.0
L-06-2	NEARSITE NO.6	15.5	17.6	16.8	16.9
L-07-1	SENECA	15.9	18.7	17.1	17.9
L-07-2	SENECA	19.4	18.5	18.3	17.9
L-08-1	MARSEILLES	17.8	17.5	16.8	17.9
L-08-2	MARSEILLES	16.3	17.5	17.6	16.3
L-11-1	RANSOM	14.2	17.1	14.7	14.8
L-11-2	RANSOM	15.2	15.6	14.9	15.0
	Air Sampler Mean ± S.D.	16.2 ± 1.3	17.6 ± 1.0	17.1 ± 1.2	16.9 ± 1.2
	Annual Air Sampler Mean ± S.D.				17.0 ± 1.2
b. Inner Ring (100 Series)					
L-101-1		17.0	18.0	18.6	19.3
L-101-2		15.9	19.1	17.6	18.1
L-102-1		18.9	21.3	20.9	20.3
L-102-2		17.7	20.3	20.0	19.0
L-103-1		15.5	17.8	17.7	17.7
L-103-2		16.2	18.1	18.1 #	17.5
L-104-1		15.9	17.0	18.3	18.4
L-104-2		15.5	18.5	17.3	17.5
L-105-1		18.1	20.1	19.3	18.8
L-105-2		17.6	19.7	20.2	20.0
L-106-1		15.6	18.3	17.7	16.9
L-106-2		16.5	17.7	17.3	17.4
L-107-1		17.0	18.4	19.1	21.6
L-107-2		19.1	19.3	18.8	17.6
L-108-1		14.0	19.8	18.1	18.3
L-108-2		16.6	16.5	14.9	14.8
L-109-1		16.0	19.6	18.3	17.4

Site	Description	Quarter 1 1999	Quarter 2 1999	Quarter 3 1999	Quarter 4 1999
b. Inner Ring (100 Series)					
L-109-2		17.5	19.5	19.1	17.9
L-110-1		16.2	19.1	18.5	18.1
L-110-2		15.8	19.8	18.8	18.5
L-111B-1		15.8	20.2	18.8	18.7
L-111B-2		17.5	18.9	18.0	17.8
L-112-1		16.2	21.0	19.1	17.2
L-112-2		16.8	19.5	18.7	17.4
L-113A-1		18.2	19.5	19.7	18.1
L-113A-2		17.0	19.5	19.0	19.7
L-114-1		16.5	19.4	18.5	19.1
L-114-2		17.5	19.5	18.7	19.1
L-115-1		15.0	16.8	16.8	16.5
L-115-2		14.7	15.9	15.6	16.4
L-116-1		15.7	17.3	16.7	15.7
L-116-2		15.3	16.9	16.7	15.8
	Inner Ring Mean ± S.D.	16.5 ± 1.2	18.8 ± 1.3	18.3 ± 1.3	18.0 ± 1.4
	Annual Inner Ring Mean ± S.D.				17.9 ± 1.5
c. Outer Ring (200 Series)					
L-201-3		14.1	15.7	15.0	14.9
L-201-4		17.3	19.9	19.3	19.2
L-202-3		16.3	17.0	16.3	16.5
L-202-4		15.2 #	16.6	16.1	16.2
L-203-1		18.7	18.2	19.4	18.0
L-203-2		17.0	18.0	17.9	17.0
L-204-1		15.5	19.0	18.8	18.9
L-204-2		16.4	19.0	18.3	18.7
L-205-1		15.3	18.4	18.8 #	16.5
L-205-2		15.8	19.6	19.3	18.8
L-205-3		17.1	19.0	19.0	17.8
L-205-4		15.6	19.1	17.2	18.1
L-206-1		17.5	18.6	18.2	18.0
L-206-2		18.5 #	18.4	18.4	17.5
L-207-1		16.8	18.9	18.5	18.0
L-207-2		17.2	17.3 #	17.8	17.9
L-208-1		17.6	18.7	17.9	17.9
L-208-2		17.4	19.1	19.2	19.2
L-209-1		17.5	18.3	18.9	18.7
L-209-2		16.0	18.6	18.8	17.9
L-210-1		19.2	20.9	20.2	20.2
L-210-2		18.0	19.8	18.9	19.8
L-211-1		19.0	19.7 #	18.2	18.6
L-211-2		18.7	19.4	19.0	18.6
L-212-1		17.4	19.1	20.1	17.9
L-212-2		17.0	18.3	18.6	17.7
L-213-3		15.3	17.4	16.4	16.7
L-213-4		14.9	17.4	17.2	16.2
L-214-3		16.9	18.0	17.5	17.4

Site	Description	Quarter 1 1999	Quarter 2 1999	Quarter 3 1999	Quarter 4 1999
c. Outer Ring (200 Series)					
L-214-4		16.5	17.6	17.7	17.0
L-215-3		17.0	18.8	18.3	18.2
L-215-4		17.3	18.6	19.5	18.4
L-216-3		17.9	19.3	18.9	19.0
L-216-4		16.4	18.6	19.3	17.5
	Outer Ring Mean ± S.D.	16.9 ± 1.2	18.5 ± 1.0	18.3 ± 1.1	17.9 ± 1.1
	Annual Outer Ring Mean ± S.D.				17.9 ± 1.3
	INDICATOR LOCATION MEAN ± S.D.	16.6 ± 1.2	18.5 ± 1.2	18.1 ± 1.3	17.8 ± 1.3
	Annual INDICATOR LOCATION MEAN ± S.D.				17.7 ± 1.4
II. CONTROL LOCATIONS					
L-10-1	STREATOR	14.7	16.8	15.3	15.4
L-10-2	STREATOR	13.9	16.1	15.2	15.1
	CONTROL LOCATION Mean ± S.D.	14.3 ± 0.6	16.5 ± 0.5	15.3 ± 0.1	15.3 ± 0.2
	Annual CONTROL LOCATION Mean ± S.D.				15.3 ± 0.9
	INDICATOR LOCATION MEAN ± S.D.	16.6 ± 1.3	18.4 ± 1.2	18.0 ± 1.3	17.7 ± 1.3
	Annual INDICATOR LOCATION MEAN ± S.D.				17.7 ± 1.5

COMMENTS: "•" Indicates lost dosimeter. A portion of the Dose was estimated.
"#" Indicates edited dosimeter. The original Dose was replaced with an estimated value.
"n" (n=2..9) Indicates dose is average of n values. A "+" means more than 9 values.

5.0 GRAPHS OF DATA TRENDS

Air Particulates - Gross Beta

L-01 Nearsite No. 1

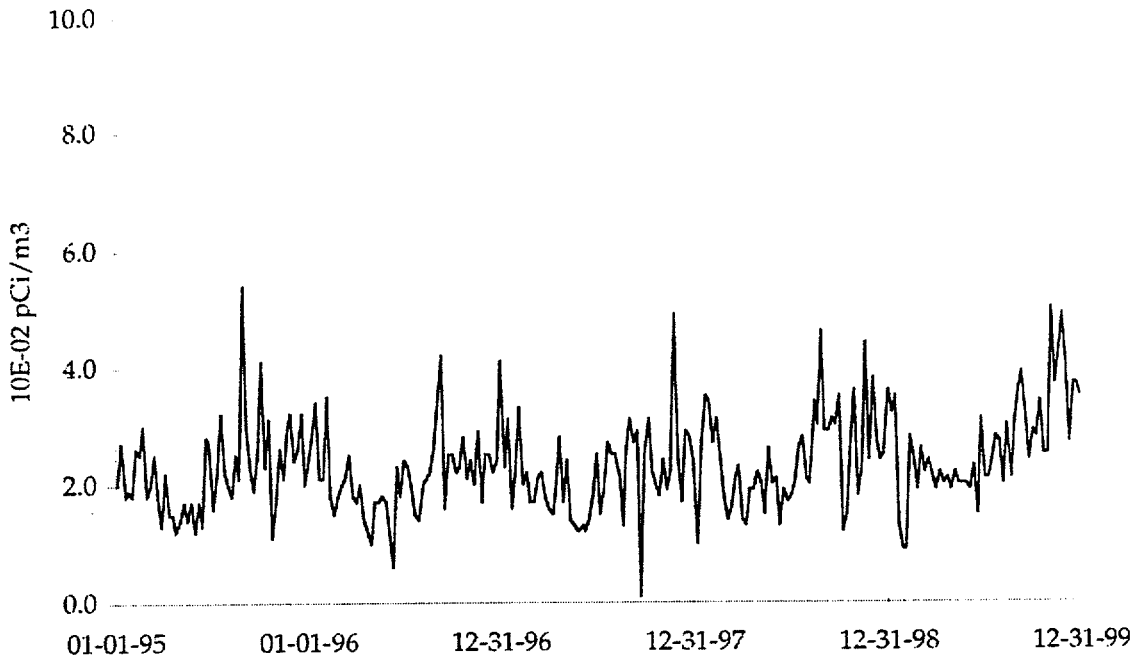

Figure 1. Continuous collection with weekly exchange of particulate filter.

L-03 Onsite No. 3

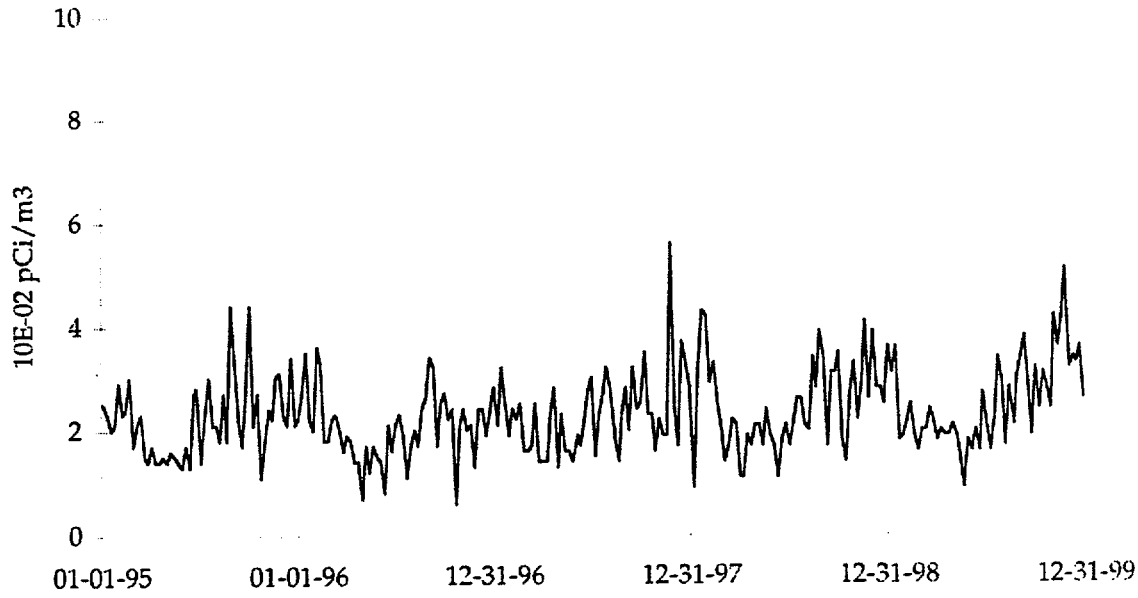

Figure 2. Continuous collection with weekly exchange of particulate filter.

L-05 Onsite No. 5

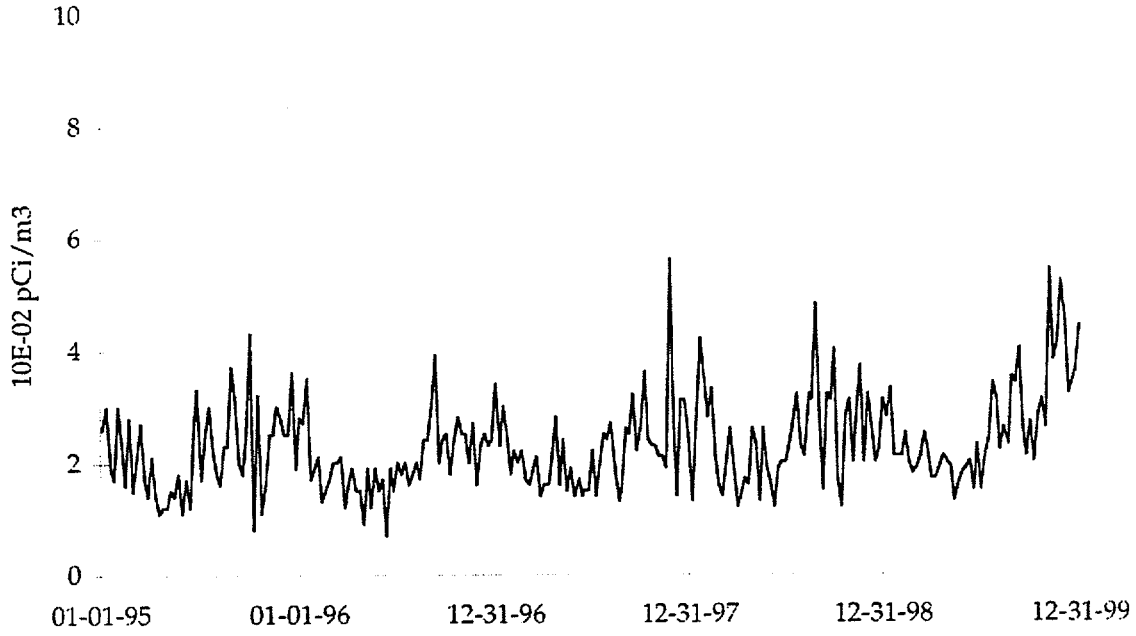

Figure 3. Continuous collection with weekly exchange of particulate filter.

L-06 Nearsite No. 6

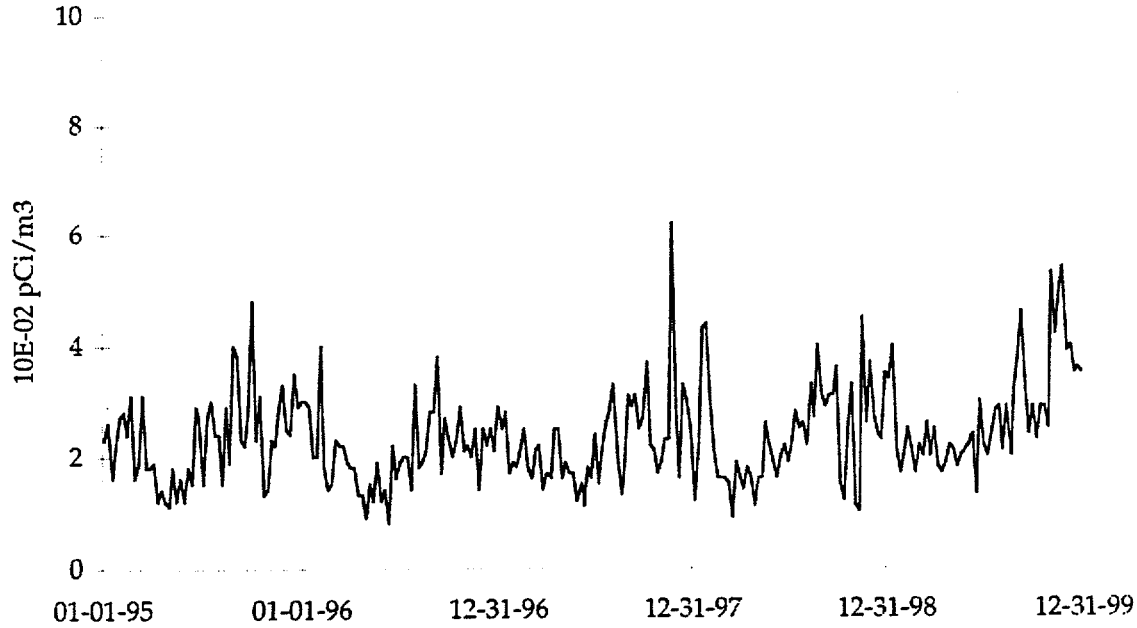

Figure 4. Continuous collection with weekly exchange of particulate filter.

Air Particulates - Gross Beta

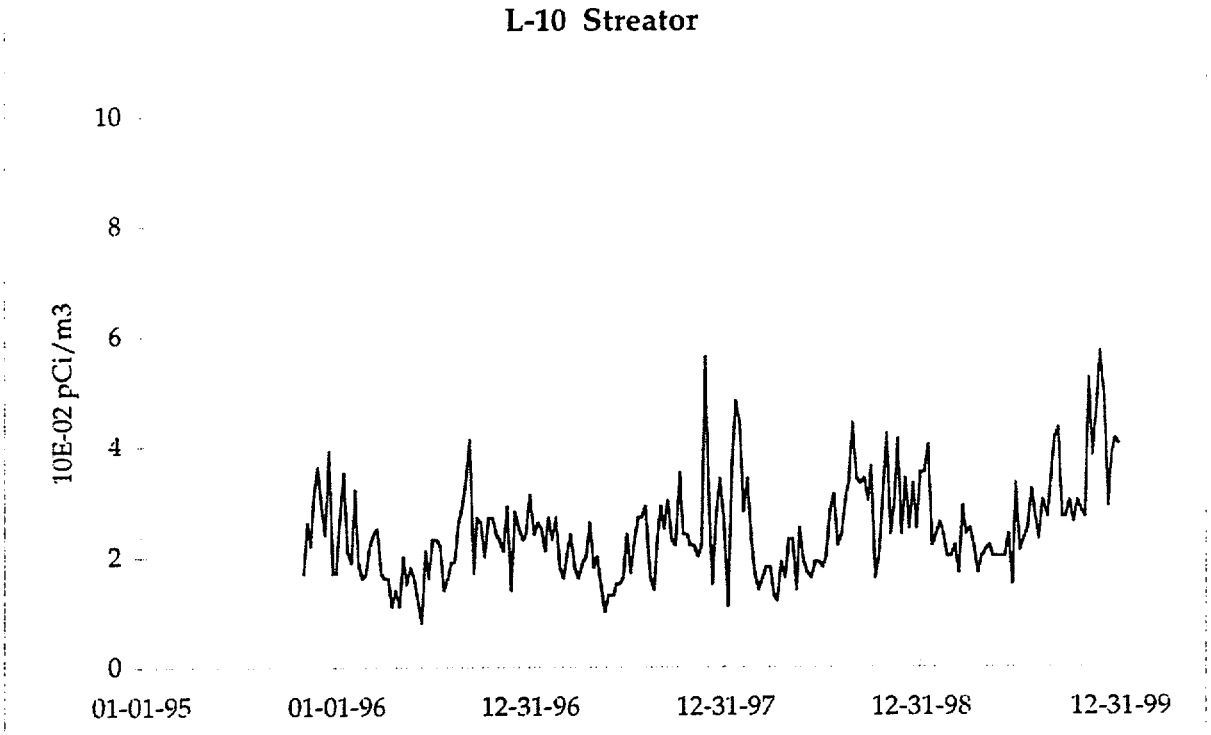

Figure 5. Continuous collection with weekly exchange of particulate filter.

Surface Water - Gross Beta

L-21 Illinois River at Seneca

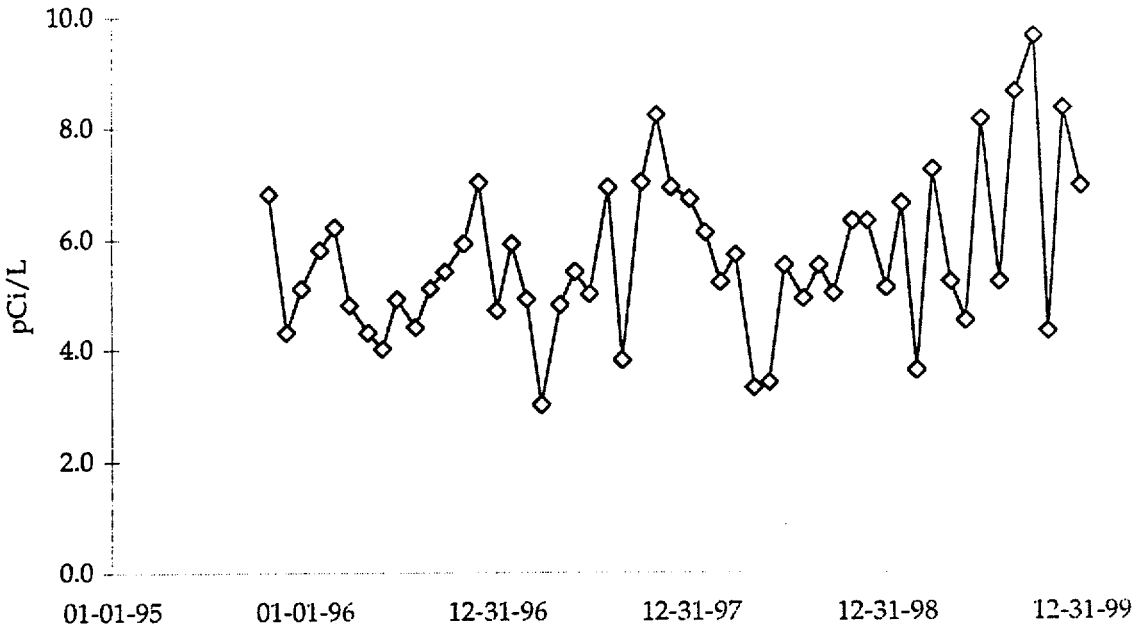

Figure 6. Monthly composites of weekly collections.

L-40 Illinois River Downstream

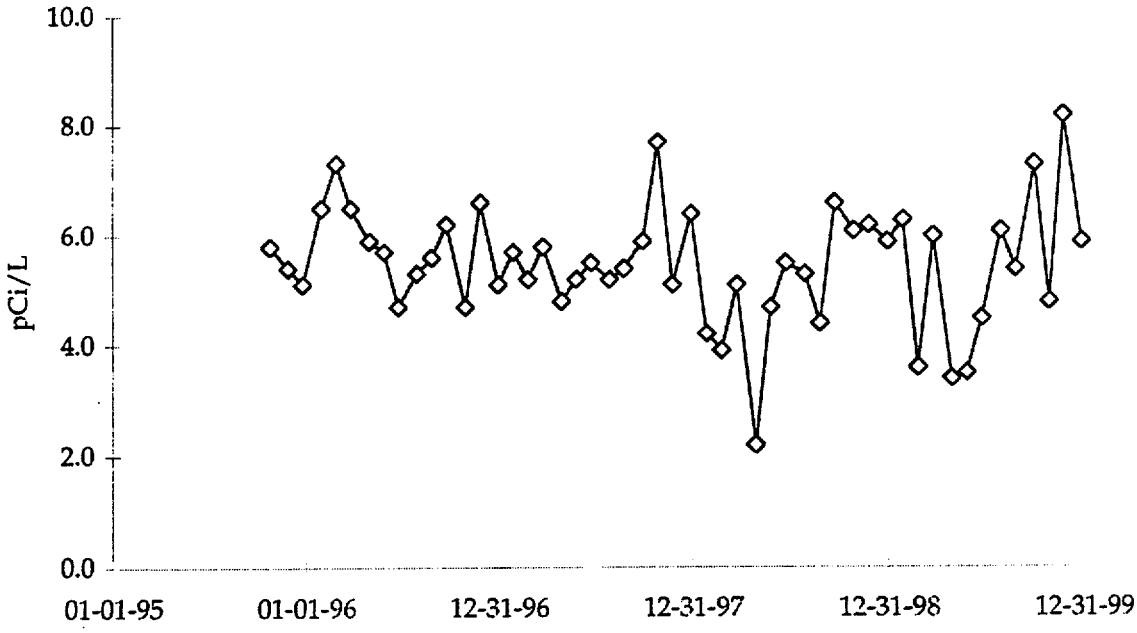

Figure 7. Monthly composites of weekly collections.

L-21(C) Illinois River at Seneca

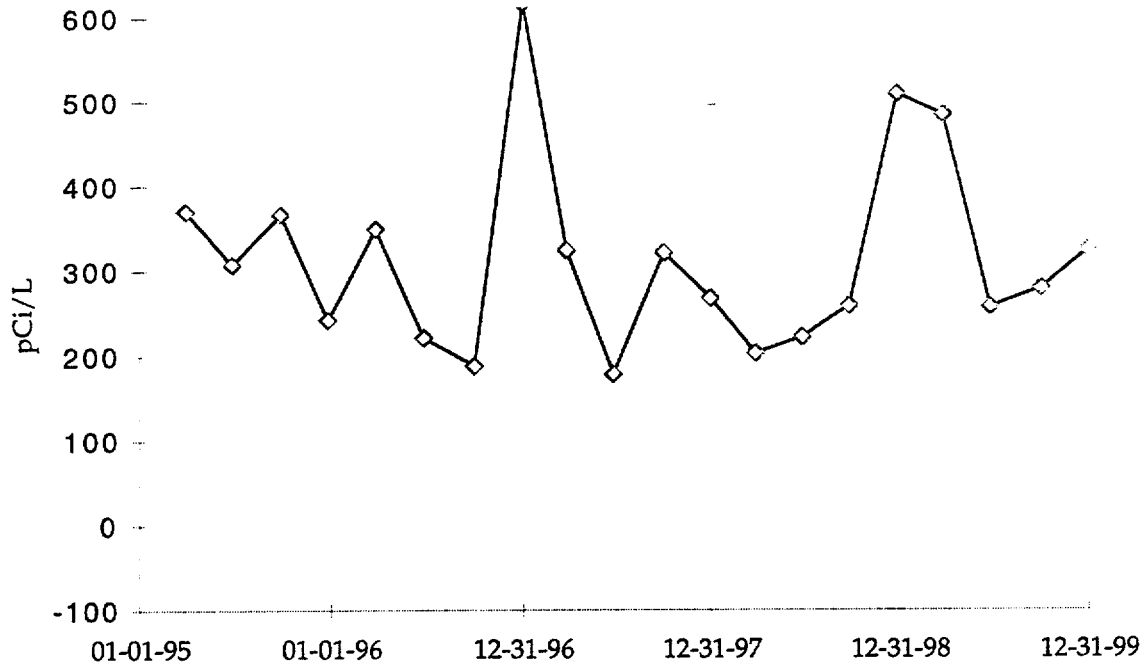

Figure 8. Quarterly composites of weekly collections.

L-40 Illinois River Downstream

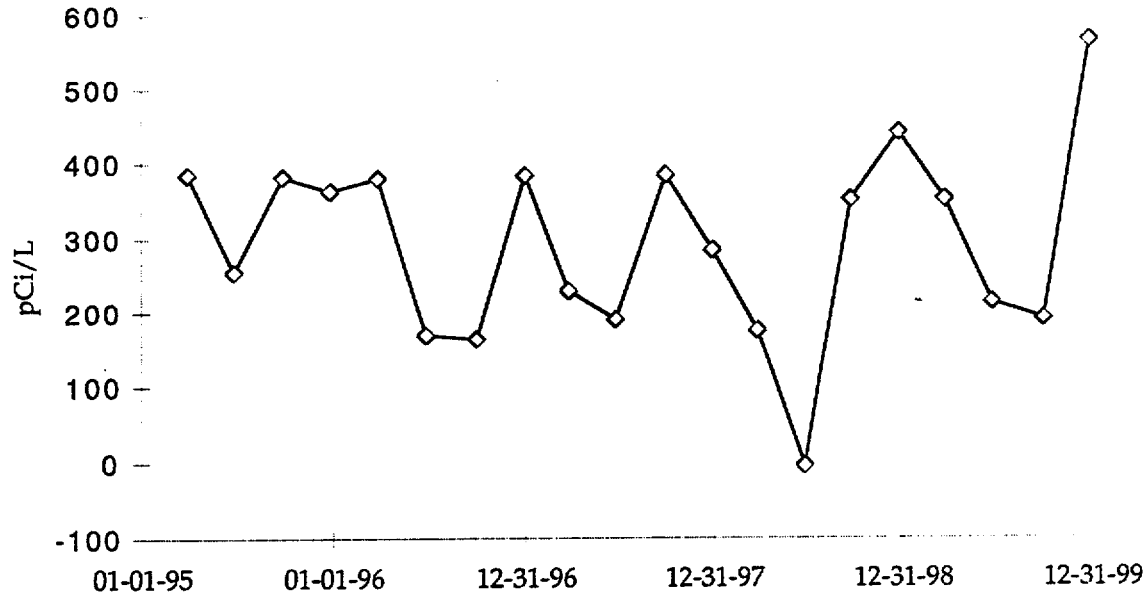

Figure 9. Quarterly composites of weekly collections.

L-27 LSCS Onsite Well at Station

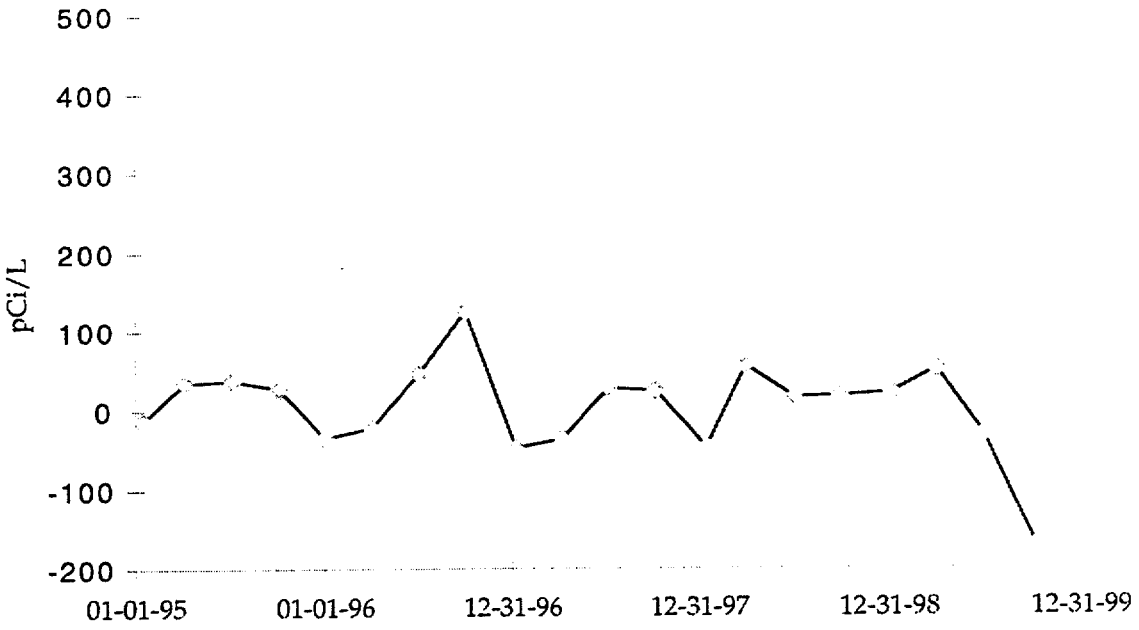

Figure 10. Quarterly collections.

L-28 Marseilles Well

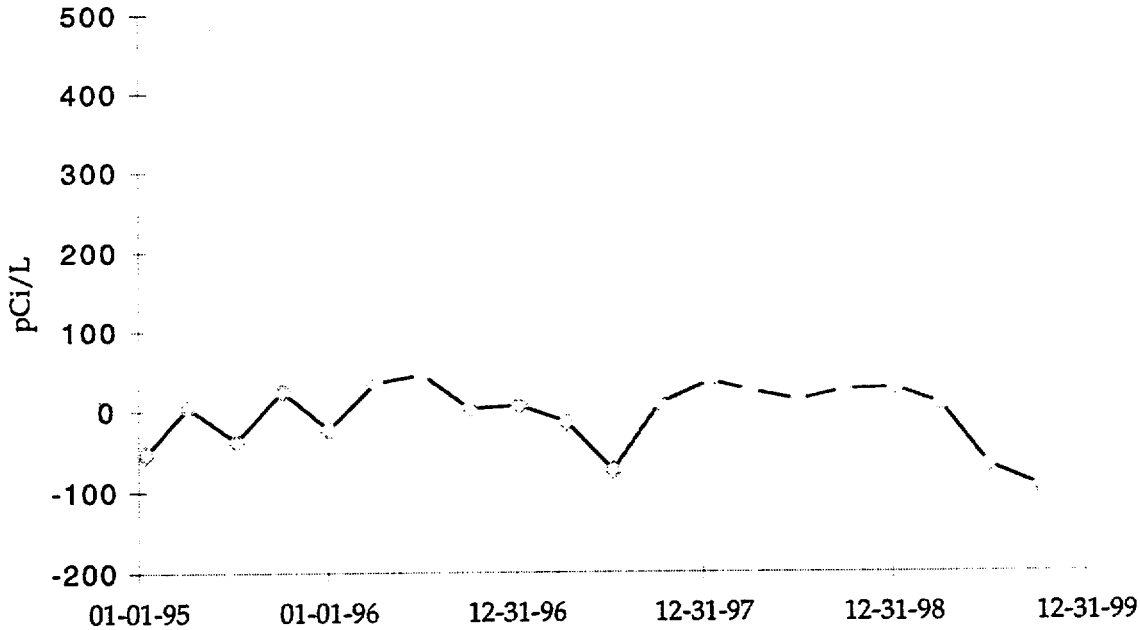

Figure 11. Quarterly collections.

APPENDIX IV

INTERLABORATORY COMPARISON PROGRAM RESULTS

NOTE: Teledyne Brown Engineering - Environmental Services, Midwest Laboratory participates in intercomparison studies administered by Environmental Resources Associates, and serves as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada. Results are reported annually in Appendix VI. Mixed analyte and Environmental Measurements Laboratory (EML) performance evaluation program results are also reported.

January, 1999 through December, 1999

Appendix IV

Interlaboratory Comparison Program Results

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

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

The results in Table IV-1 were obtained through participation in the environmental sample crosscheck program for milk, water, air filters, and food samples through December 31, 1999. This program was conducted by the Environmental Resource Associates and serves to replace studies formerly conducted by the U. S. Environmental Protection Agency.

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

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

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

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

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/L[b] EPA Result[c] 1s, N=1	Control Limits	TBEESML Results ± 2 Sigma[d]
STW-861	Water	Sep, 1999	Ra-226	16.5 ± 1.7	12.2 - 20.8	15.6 ± 0.3;1.6
STW-861	Water	Sep, 1999	Ra-228	2.2 ± 0.2	1.2 - 3.1	3.2 ± 0.3;0.5
		The activity reported is the average of three separate analyses. Individual results : 2.6, 2.9 and 4.0.				
STW-861	Water	Sep, 1999	Uranium	45.4 ± 4.5	37.7 - 53.1	39.4 ± 1.2;4.1
STW-862	Water	Nov, 1999	I-131	23.3 ± 2.3	18.1 - 28.5	23.9 ± 0.1;2.4

[a] Results obtained by Teledyne Brown Engineering Environmental Services Midwest Laboratory as a participant in the environmental sample crosscheck program operated by Environmental Resource Associates(ERA).

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

[c] Unless otherwise indicated, the TBEESML results are given as the mean ± 2 standard deviations for three determinations.

[d] ERA results are presented as the known values and expected laboratory precision (1s, 1 determination) and control limits as defined by ERA.

Table IV-2. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP), comparison of MAPEP and Teledyne's Midwest Laboratory results for various sample media[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/kg[b] MAPEP Result[d] 1s, N=1	Control Limits	Teledyne Results ±Standard Deviation[c]
SPW-846	WATER	Jan, 1999	Co-57	358.0	250.6 - 465.4	337.6 ± 33.8;47.7
SPW-846	WATER	Jan, 1999	Cs-137	637.0	445.9 - 828.1	656.6 ± 65.7;115.1
SPW-846	WATER	Jan, 1999	Fe-55	664.0	464.8 - 863.2	724.5 ± 72.5;102.5
SPW-846	WATER	Jan, 1999	Mn-54	229.0	160.3 - 297.7	234.2 ± 23.4;33.1
SPW-846	WATER	Jan, 1999	Pu-238	1.5	1.0 - 1.9	1.1 ± 0.1;0.2
SPW-846	WATER	Jan, 1999	Pu-239/40	4.0	2.8 - 5.3	3.2 ± 0.3;0.5
SPW-846	WATER	Jan, 1999	Sr-90	39.5	27.7 - 51.4	40.9 ± 4.1;5.8
SPW-846	WATER	Jan, 1999	U-233/4	2.7	1.9 - 3.5	2.7 ± 0.3;0.4
SPW-846	WATER	Jan, 1999	U-238	21.2	14.8 - 27.6	20.8 ± 2.1;2.9
SPW-846	WATER	Jan, 1999	Zn-65	1,560.0	1,092.0 - 2,028.0	1,508.9 ± 150.9;264.5
STSO-854	SOIL	Jan, 1999	Am-241	6.6	4.6 - 8.5	6.2 ± 0.7;0.9
STSO-854	SOIL	Jan, 1999	Co-57	360.0	252.0 - 468.0	311.1 ± 3.6;31.3
STSO-854	SOIL	Jan, 1999	Co-60	131.0	91.7 - 170.3	134.6 ± 2.2;13.6
STSO-854	SOIL	Jan, 1999	Cs-134	752.0	526.4 - 977.6	682.4 ± 4.5;68.4
STSO-854	SOIL	Jan, 1999	Cs-137	331.0	231.7 - 430.3	319.5 ± 3.6;32.2
STSO-854	SOIL	Jan, 1999	K-40	652.0	456.4 - 847.6	667.0 ± 21.5;70.1
STSO-854	SOIL	Jan, 1999	Mn-54	345.0	241.5 - 448.5	349.0 ± 7.0;35.6
STSO-854	SOIL	Jan, 1999	Pu-238	27.5	19.3 - 35.8	25.3 ± 1.0;2.7
STSO-854	SOIL	Jan, 1999	Pu-239/40	48.1	33.7 - 62.5	45.7 ± 1.0;4.7
STSO-854	SOIL	Jan, 1999	U-233/4	157.0	109.9 - 204.1	139.6 ± 1.8;14.1
STSO-854	SOIL	Jan, 1999	U-238	40.7	28.5 - 52.9	23.5 ± 0.8;2.5
The analysis was repeated. Result of reanalysis; 29.5±6.3 Bq/kg.						
STSO-854	SOIL	Jan, 1999	Zn-65	2,840.0	1,988.0 - 3,692.0	2,697.2 ± 25.0;270.9

[a] Results obtained by Teledyne Brown Engineering Environmental Services 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] Unless otherwise indicated, the TBEESML results are given as the mean ± 1 standard deviations for three determinations.

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

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML), comparison of EML and Teledyne's Midwest Laboratory results for various sample media[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Teledyne Result[c]	EML Result[d]	Control Limits[e]
STAF-848	Air Filter	Mar, 1999	Gr. Alpha	1.2 ± 0.0; 0.1	1.6 ± 0.2	0.6 - 1.6
STAF-848	Air Filter	Mar, 1999	Gr. Beta	2.0 ± 0.0; 0.2	1.6 ± 0.2	0.6 - 1.6
STW-850	Water	Mar, 1999	Am-241	1.2 ± 0.2; 0.2	1.1 ± 0.1	0.7 - 2.6
STW-850	Water	Mar, 1999	Co-60	54.4 ± 2.0; 8.1	51.1 ± 3.0	0.9 - 1.2
STW-850	Water	Mar, 1999	Cs-137	43.5 ± 2.0; 6.6	39.4 ± 2.4	0.9 - 1.3
STW-850	Water	Mar, 1999	Fe-55	81.5 ± 19.5; 21.1	97.4 ± 1.7	0.3 - 1.5
STW-850	Water	Mar, 1999	Gr. Alpha	1,169.0 ± 37.0; 147.3	1,090.0 ± 20.0	0.5 - 1.3
STW-850	Water	Mar, 1999	Gr. Beta	1,274.6 ± 33.3; 199.1	1,100.0 ± 40.0	0.5 - 1.3
STW-850	Water	Mar, 1999	H-3	90.3 ± 24.8; 27.7	121.1 ± 6.8	0.7 - 1.9
STW-850	Water	Mar, 1999	Ni-63	125.8 ± 6.3; 14.1	114.0 ± 10.0	0.5 - 1.5
STW-850	Water	Mar, 1999	Pu-238	0.8 ± 0.0; 0.1	0.8 ± 0.0	0.8 - 1.4
STW-850	Water	Mar, 1999	Pu-239/40	1.0 ± 0.1; 0.1	1.0 ± 0.1	0.8 - 1.4
STW-850	Water	Mar, 1999	Sr-90	3.6 ± 1.2; 1.3	4.1 ± 0.0	0.5 - 1.5
STW-850	Water	Mar, 1999	U-233/4	0.3 ± 0.1; 0.1	0.3 ± 0.0	0.8 - 1.4
STW-850	Water	Mar, 1999	U-238	0.3 ± 0.1; 0.1	0.3 ± 0.0	0.8 - 1.4
STVE-851	Vegetation	Mar, 1999	Am-241	3.4 ± 0.9; 0.9	3.5 ± 0.6	0.7 - 2.8
STVE-851	Vegetation	Mar, 1999	Cm-244	0.6 ± 0.4; 0.4	1.7 ± 0.5	0.5 - 1.7
STVE-851	Vegetation	Mar, 1999	Co-60	21.0 ± 1.9; 3.4	21.5 ± 1.0	0.6 - 1.4
STVE-851	Vegetation	Mar, 1999	Cs-137	453.9 ± 5.7; 62.0	467.0 ± 20.0	0.8 - 1.5
STVE-851	Vegetation	Mar, 1999	K-40	667.6 ± 33.7; 74.8	656.5 ± 20.0	0.8 - 1.5
STVE-851	Vegetation	Mar, 1999	Sr-90	704.8 ± 27.8; 75.8	736.1 ± 7.7	0.5 - 1.3
STSO-852	Soil	Mar, 1999	Ac-228	45.1 ± 7.4; 8.7	47.2 ± 3.0	0.5 - 1.5
STSO-852	Soil	Mar, 1999	Am-241	5.7 ± 2.4; 2.5	4.9 ± 1.0	0.5 - 2.7
STSO-852	Soil	Mar, 1999	Bi-214	67.3 ± 3.3; 7.5	69.9 ± 5.7	0.5 - 1.5
STSO-852	Soil	Mar, 1999	Cs-137	620.5 ± 5.9; 62.3	659.5 ± 25.0	0.8 - 1.3
STSO-852	Soil	Mar, 1999	K-40	355.7 ± 24.6; 43.2	362.8 ± 20.2	0.7 - 1.7
STSO-852	Soil	Mar, 1999	Pb-212	47.9 ± 3.0; 5.7	47.9 ± 2.6	0.5 - 1.5
STSO-852	Soil	Mar, 1999	Pb-214	70.1 ± 4.8; 8.5	71.0 ± 7.0	0.5 - 1.5
STSO-852	Soil	Mar, 1999	Pu-239/40	7.3 ± 1.3; 1.5	8.1 ± 1.1	0.7 - 1.9
STSO-852	Soil	Mar, 1999	Sr-90	28.3 ± 3.5; 4.5	32.4 ± 0.5	0.5 - 2.8
STSO-852	Soil	Mar, 1999	Th-234	227.4 ± 35.2; 41.9	138.0 ± 4.1	0.5 - 2.0
STSO-852	Soil	Mar, 1999	U-233/4	132.9 ± 6.9; 15.0	140.7 ± 1.2	0.4 - 1.6
STSO-852	Soil	Mar, 1999	U-238	139.4 ± 7.0; 15.6	145.0 ± 1.7	0.4 - 1.6
STAF-853	Air Filter	Mar, 1999	Am-241	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 2.4
STAF-853	Air Filter	Mar, 1999	Co-57	3.3 ± 0.1; 0.3	3.0 ± 0.1	0.6 - 1.2
STAF-853	Air Filter	Mar, 1999	Co-60	5.3 ± 0.2; 0.5	5.0 ± 0.3	0.6 - 1.4
STAF-853	Air Filter	Mar, 1999	Cs-137	7.0 ± 0.2; 0.7	6.1 ± 0.3	0.7 - 1.3
STAF-853	Air Filter	Mar, 1999	Pu-238	0.3 ± 0.0; 0.0	0.3 ± 0.0	0.6 - 1.5

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML), comparison of EML and Teledyne's Midwest Laboratory results for various sample media[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Teledyne Result[c]	EML Result[d]	Control Limits[e]
STAF-853	Air Filter	Mar, 1999	Pu-239/40	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.6 - 1.5
STAF-853	Air Filter	Mar, 1999	Sb-125	4.4 ± 0.3; 0.5	3.6 ± 0.3	0.6 - 1.4
STAF-853	Air Filter	Mar, 1999	Sr-90	0.7 ± 0.2; 0.2	0.6 ± 0.0	0.7 - 2.7
STAF-853	Air Filter	Mar, 1999	U-233/4	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 3.0
STAF-853	Air Filter	Mar, 1999	U-238	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 3.0
STW-855	Water	Sep, 1999	Am-241	1.1 ± 0.2; 0.3	0.9 ± 0.1	0.8 - 1.5
STW-855	Water	Sep, 1999	Co-60	54.1 ± 1.1; 7.9	52.4 ± 2.2	0.8 - 1.2
STW-855	Water	Sep, 1999	Cs-137	77.1 ± 1.4; 11.2	76.0 ± 3.4	0.8 - 1.3
STW-855	Water	Sep, 1999	Fe-55	48.6 ± 6.8; 8.4	53.0 ± 2.0	0.4 - 1.5
STW-855	Water	Sep, 1999	U-233/4	0.5 ± 0.1; 0.1	0.4 ± 0.0	0.8 - 1.9
STW-855	Water	Sep, 1999	U-238	0.5 ± 0.1; 0.1	0.4 ± 0.0	0.8 - 1.3
Increasing the sample counting time achieved acceptable results (0.42±0.07 Bq/L).						
STW-856	Water	Sep, 1999	Gr. Alpha	1,543.0 ± 44.0; 193.3	1,580.0 ± 20.0	0.6 - 1.3
STW-856	Water	Sep, 1999	Gr. Beta	1,053.0 ± 31.0; 165.1	740.0 ± 40.0	0.6 - 1.5
STW-856	Water	Sep, 1999	H-3	136.0 ± 25.0; 31.1	80.7 ± 3.7	0.7 - 1.8
STW-856	Water	Sep, 1999	Pu-238	0.8 ± 0.1; 0.1	0.8 ± 0.1	0.8 - 1.3
STW-856	Water	Sep, 1999	Pu-239/40	0.8 ± 0.1; 0.1	0.9 ± 0.1	0.8 - 1.4
STW-856	Water	Sep, 1999	Sr-90	2.2 ± 1.0; 1.0	1.7 ± 1.0	0.8 - 1.5
STW-856	Water	Sep, 1999	U-233/4	0.5 ± 0.1; 0.1	0.4 ± 0.0	0.8 - 1.4
STW-856	Water	Sep, 1999	U-238	0.5 ± 0.1; 0.1	0.4 ± 0.0	0.8 - 1.3
STSO-857	Soil	Sep, 1999	Ac-228	127.3 ± 7.5; 14.8	124.0 ± 4.8	0.8 - 1.8
STSO-857	Soil	Sep, 1999	Bi-212	107.4 ± 2.6; 11.1	140.0 ± 14.0	0.4 - 1.2
STSO-857	Soil	Sep, 1999	Bi-214	90.1 ± 4.2; 9.9	69.5 ± 1.8	0.8 - 1.4
STSO-857	Soil	Sep, 1999	Cs-137	195.9 ± 4.0; 20.0	204.0 ± 5.0	0.8 - 1.3
STSO-857	Soil	Sep, 1999	K-40	744.7 ± 37.7; 83.5	780.0 ± 27.0	0.8 - 1.5
STSO-857	Soil	Sep, 1999	Pb-212	123.4 ± 3.7; 12.9	127.0 ± 4.8	0.7 - 1.3
STSO-857	Soil	Sep, 1999	Pb-214	96.5 ± 5.0; 10.9	72.0 ± 0.4	0.7 - 1.5
STSO-857	Soil	Sep, 1999	Sr-90	13.0 ± 1.4; 1.9	13.0 ± 0.5	0.6 - 3.7
STSO-857	Soil	Sep, 1999	Th-234	298.7 ± 24.6; 38.7	198.0 ± 5.6	0.6 - 1.9
STSO-857	Soil	Sep, 1999	U-233/4	184.4 ± 8.5; 20.3	190.0 ± 5.2	0.5 - 1.3
STSO-857	Soil	Sep, 1999	U-238	184.8 ± 8.5; 20.3	190.0 ± 5.2	0.5 - 1.3
STVE-858	Vegetation	Sep, 1999	Am-241	3.3 ± 0.9; 0.9	2.9 ± 0.2	0.7 - 2.7
STVE-858	Vegetation	Sep, 1999	Cm-244	2.1 ± 0.9; 0.9	1.6 ± 0.4	0.5 - 1.7
STVE-858	Vegetation	Sep, 1999	Co-60	17.6 ± 1.9; 3.1	17.6 ± 1.0	0.7 - 1.5
STVE-858	Vegetation	Sep, 1999	Cs-137	414.6 ± 5.7; 56.7	440.0 ± 20.0	0.8 - 1.4
STVE-858	Vegetation	Sep, 1999	K-40	502.8 ± 34.7; 61.1	513.0 ± 20.0	0.8 - 1.4
STVE-858	Vegetation	Sep, 1999	Pu-239/40	4.1 ± 1.0; 1.1	4.3 ± 0.5	0.7 - 1.6
STAP-859	Air Filter	Sep, 1999	Am-241	0.1 ± 0.1; 0.1	0.1 ± 0.0	0.7 - 2.6

Table IV-3. Environmental Measurements Laboratory Quality Assessment Program (EML), comparison of EML and Teledyne's Midwest Laboratory results for various sample media[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in Bq/L[b] Teledyne Result[c]	EML Result[d]	Control Limits[e]
STAP-859	Air Filter	Sep, 1999	Co-57	8.1 ± 0.1; 0.8	7.7 ± 0.0	0.7 - 1.4
STAP-859	Air Filter	Sep, 1999	Co-60	6.7 ± 0.1; 0.7	6.4 ± 0.4	0.8 - 1.3
STAP-859	Air Filter	Sep, 1999	Cs-137	7.1 ± 0.2; 0.7	6.4 ± 0.4	0.7 - 1.4
STAP-859	Air Filter	Sep, 1999	Mn-54	8.8 ± 0.2; 0.9	7.9 ± 0.5	0.8 - 1.4
STAP-859	Air Filter	Sep, 1999	Pu-238	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.7 - 1.4
STAP-859	Air Filter	Sep, 1999	Pu-239/40	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 1.4
Insufficient sample volume (15 ml.) for accurate analysis.						
STAP-859	Air Filter	Sep, 1999	Ru-106	5.9 ± 0.8; 1.0	5.5 ± 1.8	0.6 - 1.3
STAP-859	Air Filter	Sep, 1999	Sr-90	0.6 ± 0.2; 0.2	0.3 ± 0.0	0.6 - 1.9
STAP-859	Air Filter	Sep, 1999	U-233/4	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 1.9
STAP-859	Air Filter	Sep, 1999	U-238	0.1 ± 0.0; 0.0	0.1 ± 0.0	0.8 - 2.6
STAP-860	Air Filter	Sep, 1999	Gr. Alpha	3.2 ± 0.1; 0.3	2.8 ± 0.3	0.5 - 1.6
STAP-860	Air Filter	Sep, 1999	Gr. Beta	3.7 ± 0.1; 0.4	2.7 ± 0.3	0.7 - 1.7

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

[b] Results are reported in Bq/L^{-1} with the following exceptions: Air Filter results are reported in $Bq/Filter^{-1}$, Soil results are reported in Bq/Kg^{-1}, Vegetation results are reported in Bq/Kg^{-1}. The results of elemental Uranium are reported in $ug/filter^{-1}$, g, or ml.

[c] Teledyne results are reported as the mean of three determinations±standard deviation;total promulgated uncertainty.

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

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