LASALLE COUNTY STATION

RADIOACTIVE WASTE AND ENVIRONMENTAL MONITORING

ANNUAL REPORT 1982

HAZLETON ENVIRONMENTAL SCIENCES

Northbrook, Illinois

MARCH 1983

LASALLE COUNTY NUCLEAR POWER STATION

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INTRODUCTION

LaSalle Station, a two-unit BWR plant is located near Marseilles, Illinois, in Lasalle County, next to the Illinois River. Each reactor is designed to have a capacity of 1078 MW net. Unit No. 1 loaded fuel in April 1982. Unit No. 2 is scheduled to load fuel in September 1983. The plant 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 half-life gases. Releases to the atmosphere are calculated on the basis of analyses of daily grab samples of noble gases and continuously collected composite samples of iodine and particulate matter. The results of effluent analyses are summarized on a monthly basis and reported to the Nuclear Regulatory Commission as required per Technical Specifications. Airborne concentrations of noble gases, I-131 and particulate radioactivity in off-site areas are calculated using effluent and meteorological data on isotopic composition of effluents.

Environmental monitoring is conducted by sampling at indicator and reference (background) locations in the vicinity of the LaSalle County Station to measure changes in radiation or radioactivity levels that may be attributable to plant 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 I-131 in milk are the most critical pathways at this site; however, an environmental monitoring program is conducted which includes other pathways of less importance.

SUMMARY

Gaseous and liquid effluents for the period remained at a fraction of the Technical Specification 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 the plant are unlikely to exceed the regulatory limits. Gamma radiation exposure from noble gases released to the atmosphere represented the critical pathway for the period with a maximum individual dose estimated to be 1.02E-06 mrem for the year, when a shielding and occupancy factor of 0.7 is assumed. Environmental monitoring results confirm that dose via other pathways was not significant.

1.0 EFFLUENTS

1.1 Gaseous Effluents to the Atmosphere

Measured concentrations and isotopic composition of noble gases, radioiodine, and particulate radioactivity released to the atmosphere during the year, are listed in Table 1.1-1. A total of 3.46 curies of fission and activation gases was released with a maximum release rate of 2.67±E+04 µCi/sec.

No I-131 was released during the year.

A total of 4.16 curies of beta-gamma emitters and 7.08E-06 curies of alpha emitters was released as airborne particulate matter, with an average release rate of 1.31E-04 µCi/sec.

No tritium was released during the year.

1.2 Liquids Released to the Illinois River

A total of 9.69E+06 liters of radioactive liquid waste (prior to dilution) containing 4.30E-02 curies (excluding tritium, gases, and alpha) were discharged after dilution with a total of 1.40E+10 liters of water. These wastes were released at a monthly average concentration of 4.0E-09 µCi/ml during the second half of 1982, dicharged on an unidentified nuclide basis, which is 4% of the Technical Specification release limits for unidentified radioactivity. A total of 1.23E-05 curies of alpha radioactivity and <2.88E-03 curies of tritium were released. Monthly release estimates and principal radionuclides in liquid effluents are given in Table 1.2-1.

2.0 SOLID RADIOACTIVE WASTE

No solid radioactive wastes were shipped during the reporting period.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

Gamma Dose Rates

Gamma air and whole body dose rates off-site were calculated based on measured release rates, isotopic composition of the noble gases, and meterological data for the period (Table 3.1-1). Isodose contours of whole body dose are shown in Figure 3.1-1 for the year. Based on measured effluents and meteorological data, the maximum dose to an individual would be 1.02E-06 mrem for the year, with an occupancy or shielding factor of 0.7 included. The maximum gamma air dose was 3.37E-06 mrad.

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 purpose of calculating the dose from beta radiation incident on the skin. However, the actual dose to sensitive skin tissues is difficult to calculate because this depends on 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 mg/cm^2 and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was 3.70E-06 mrem.

The air concentrations of radioactive noble gases at the off-site receptor locations are given in Figure 3.1-2. The maximum off-site beta air dose for the year was 3.83E-06 mrad.

Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine, and the radioiodine, I-131, released during routine operation of the plant, may be made available to man thus resulting in a dose to the thyroid. The principal pathway of interest for this radionuclide is ingestion of radioiodine in milk by an infant. Calculation made in previous years indicate that contributions to doses from inhalation of I-131 and I-133, and I-133 in milk, are negligible.

Iodine-131 Concentrations in Air

The calculated concentration contours for I-131 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 off-site average concentration is estimated to be 0.0 pCi/m^3 for the year.

Dose to Infant's Thyroid

The hypothetical thyroid dose to an infant living near the plant 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 to October. The maximum infant's thyroid dose was 1.90E-07 mrem during the year (Table 3.1-1).

Concentrations of Particulates in Air

Concentration contours of radioactive airborne particulates are shown in Figure 3.1-4. The maximum off-site average level is estimated to be 1.12E-05 pCi/m^3.

Summary of Doses

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

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 walking on the shoreline. Not all of these pathways are applicable at a given time or station but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC* developed equations were used to calculate the doses to the whole body, lower GI tract, thyroid, bone and skin; specific parameters for use in the equations are given in the Commonwealth Edison Off-site Dose Calculation Manual. The maximum whole body dose for the year was 7.87E-06 mrem and no organ dose exceeded 4.14E-05 mrem.

4.0 SITE METEOROLOGY

A summary of the site meteorological measurements taken during each quarter of the year is given in Appendix II. The data are presented as cumulative joint frequency distributions of 375' level wind direction and wind speed class by atmospheric stability class determined from the temperature difference between the 375' and 33' levels. Data recovery for these measurements was about 99.7%.

5.0 ENVIRONMENTAL MONITORING

Table 5.0-1 provides an outline of the radiological environmental monitoring program as required in the Technical Specifications.

Except for tables of special interest, tables listing all data are no longer included in the annual report. All data tables are available for inspection at the Station or in the Corporate offices.

Specific findings for various environmental media are discussed below.

5.1 Gamma Radiation

External radiation dose from on-site sources and noble gases released to the atmosphere was measured at ten indicator and four reference (background) locations using solid lithium fluoride thermoluminescent dosimeters (TLD). A comparison of the TLD results for reference stations with on-site and off-site indicator stations is included in Table 5.1-1. Additional TLDs, a total of 48 were installed on June 1, 1980 such that each sector was covered at both five miles and the site boundary.

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

5.2 Airborne I-131 and Particulate Radioactivity

Concentrations of airborne I-131 and particulate radioactivity at monitoring locations are summarized in Tables 5.0-2 through 5.0-5. Locations of the samplers are shown in Figure 5.0-1. Airborne I-131 remained below the LLD of 0.1 pCi/m^3 throughout the year.

Gross beta concentrations ranged from 0.011 to 0.047 pCi/m^3 at indicator locations and 0.012 to 0.056 pCi/m^3 at control locations, with an average concentration of 0.022 pCi/m^3 for the year at both indicator and control locations. No radioactivity attributable to station operation was detected in any sample.

5.3 Terrestrial Radioactivity

Precipitation samples were collected monthly from four milk sampling locations and analyzed for gross beta, tritium, strontium-89 and -90, and gamma-emitting isotopes. Except for gross beta, all other radioactivity was below the limits of detection indicating that there was no measurable amount of radioactivity attributable to the station releases.

Annual mean gross beta concentration measured 29.5 pCi/l, which is the level expected in precipitation samples.

Vegetables were collected in August and analyzed for gross beta, strontium-89 and -90 , and gamma-emitting isotopes. In addition, green leafy vegetables were analyzed for iodine-131. Gross beta concentration ranged from 1.5 to 4.2 pCi/g wet weight and averaged 2.4 pCi/g wet weight. The range and mean values were those expected in the vegetation samples. All other isotopes were below the limits of detection indicating that there was no measurable amount of radioactivity attributable to the station releases.

Cattlefeed and grass samples were collected quarterly from milk sampling locations and analyzed for gross beta, strontium-89 and -90 and gamma-emitting isotopes. Except for gross beta, the level of radioactivity was below the detection limits. Gross beta concentrations were at the level usually encountered in these samples.

Well water from on-site well (L-27) was collected monthly and analyzed for gross beta activity. The annual mean gross beta concentration was 19.5 pCi/l. Monthly samples were also composited quarterly and analyzed for strontium-89 and -90, tritium, and gamma scanned. All results were below the lower limits of detection.

Well water was also collected quarterly from five off-site wells and analyzed for the same parameters as in well water from on-site. The results were similar to those obtained for the on-site well, indicating that there was no measurable amount of radioactivity due to the station releases.

5.4 Aquatic Radioactivity

Surface water samples were collected weekly from eight locations and analyzed for gross beta content. Weekly samples from the Illinois River near the intake and discharge pipes were composited monthly and analyzed for gamma emitters, tritium, and strontium-89 and -90. Samples from other locations were composited monthly for gamma isotopic analysis and quarterly for tritium, Sr-89 and Sr-90. None of the composite samples indicated the presence of other than naturally occurring gamma emitters at a sensitivity of 10 pCi/l. None of the samples contained Sr-89 or Sr-90 above respective detection sensitivities of 10 pCi/l and 2 pCi/l. Tritium concentrations were below the LLD level of 200 pCi/l in all samples.

Gross beta concentrations were similar to those obtained during the preoperational program indicating that there was no measurable amount of radioactivity due to station operation present.

Sediment samples were collected three times, from one indicator and two control locations, and analyzed for gross beta and gamma-emitters. Gamma emitters were either below or at the detection limits. Mean gross beta activity in indicator samples measured 26.4 pCi/g and 25.1 pCi/g at control locations indicating the presence of no radioactivity due to station operation.

Collection sites, frequency, and analysis of aquatic vegetation were identical to those of sediments. As expected, the gross beta concentration was lower for aquatic vegetation than for sediments. All gamma emitters were below the detection levels.

Levels of gamma radioactivity in fish were measured and found in all cases to be below the lower limits of detection for the program. Gross beta concentration averaged 3.2 pCi/g wet weight and was at the level expected in fish.

5.5 Milk

Milk samples were collected monthly from November through April and weekly from May through October and analyzed for iodine-131, radiostrontium, and gamma emitters. Radioiodine was below the limits of detection, 0.5 pCi/l during the grazing period (May to October) and 5.0 pCi/l during the non-grazing period (November to April). Sr-90 concentrations were variable within the usual range for milk and Sr-89 and gamma emitters were below the limits of detection.

5.6 Special Collection

No special collections were made during the period.

6.0 ANALYTICAL PROCEDURES

A description of the procedures used for analyzing radioactivity in environmental samples is given in Appendix III of the Dresden report for the period January - December 1981. Procedures used during the period covered by this report remained essentially unchanged.

7.0 MILCH ANIMAL CENSUS

A census of milch animals was conducted within five miles of the Station. The survey was conducted by "door-to door" canvas and by information from Illinois Agricultural Agents. The census was conducted by A. Lewis on September 4, 1982.

There are no dairy farms within a five mile radius of the LaSalle Nuclear Power Station.

8.0 NEAREST RESIDENTS CENSUS

The census was conducted by A. Lewis in December of 1982. There were no changes from the previous census.

9.0 ERRATA

See Appendix III, page 63.

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

I. Gaseous Effluents	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF
1. Gross Radioactivity Releases a) Total Release Main Stack	Curies	None Released	None Released	2.85E-05	4.38E-03	3.42E00	3.28E-02	3.46E+00	6.6.A.4.b.
b. Maximum Release Rate									3.11.2.1
(grab sample)	uCi/sec	N/A	N/A	9.4E+00	2.81E03	5.16E+03	2.67E+04	2.67E+04	
c. Isotopes Released									3.11.2.2
Kr-85m	Curies	----	----	----	----	----	----	----	
Kr-87	Curies	----	----	----	----	----	----	----	
Kr-88	Curies	----	----	----	----	----	----	----	
Xe-133	Curies	----	----	2.85E-05	4.38E-03	3.42E00	3.28E-02	3.46E+00	
Xe-135	Curies	----	----	----	----	----	----	----	
Xe-135m	Curies	----	----	----	----	----	----	----	
Xe-138	Curies	----	----	----	----	----	----	----	
d. Percent of Stack Limit	%	N/A	N/A	2.78E-10	4.27E-08	3.33E-05	3.20E-07	3.37E-05	3.11.2.2.b.
e. Average Release Rate	uCi/sec	N/A	N/A	1.06E-05	1.69E-03	1.28E00	1.26E-02	2.21E-01	3.11.2.1.a
2. Main Stack Iodine Release		None	None	None	None	None	None	None	6.6.A.4.b
a. Isotopes Released		Released	Released	Released	Released	Released	Released	Released	3.11.2.3
I-131	Curies	----	----	----	----	----	----	----	
I-133	Curies	----	----	----	----	----	----	----	
I-135	Curies	----	----	----	----	----	----	----	
b. Percent of Stack Limit	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Average Release Rate	uCi/sec	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.11.2.1.b.

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

I. Gaseous Effluents	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
1. Gross Radioactivity Release a) Total Release Main Stack	Curies	1.8E-11	4.43E-06	1.6E-12	None Released	2.56E-03	1.61E-03	4.17E-03	6.6.A.4.b.
b. Maximum Release Rate									3.11.2.1
(grab sample)	uCi/sec	1.8E-05	1.46E-02	1.6E-06	N/A	6.68E-03	1.0E+01	1.0E+01	
c. Isotopes Released									3.11.2.2
Kr-85m	Curies	---	---	---	---	---	---	---	
Kr-87	Curies	---	---	---	---	---	---	---	
Kr-88	Curies	---	---	---	---	---	---	---	
Xe-133	Curies	---	---	---	---	---	---	---	
Xe-135	Curies	---	---	---	---	---	---	---	
Xe-135m	Curies	---	---	---	---	---	---	---	
Xe-138	Curies	---	---	---	---	---	---	---	
Ar-41	Curies	---	---	---	---	---	1.0E-05	1.0E-05	
d. Percent of Stack Limit	%	6.27E-11	6.27E-06	0.00	N/A	6.93E-07	5.7E-07	6.41E-06	3.11.2.2.b.
e. Average Release Rate	uCi/sec	6.72E-12	1.65E-06	6.17E-13	N/A	9.87E-04	6.01E-04	2.63E-04	3.11.2.1.a
2. Main Stack Iodine Releases		None	None	None	None	None	None	None	6.6.A.4.b.
a. Isotopes Released		Released	Released	Released	Released	Released	Released	Released	3.11.2.3.
I-131	Curies	---	---	---	---	---	---	---	
I-133	Curies	---	---	---	---	---	---	---	
I-135	Curies	---	---	---	---	---	---	---	
b. Percent of Stack Limit	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Average Release Rate	uCi/sec	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.11.2.1.b.

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

1. Gaseous Effluents(cont'd)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF
3. Main Stack Particulate Release									
a. Gross Radioactivity(β-γ)	milli-curies	None Released	None Released	None Released	2.14E-05	2.16E-09	8.35E-09	2.14E-05	6.6.A.4.b.
b. Gross Alpha Radioactivity	mCi	None	None	None	7.08E-06	None	None	7.08E-06	3.11.2.3
c. Isotopes Released		None	None	None					3.11.2.3.
Cr-51	mCi	Released	Released	Released	----	----	----	----	
Mn-54	mCi	----	----	----	----	----	----	----	
Co-58	mCi	----	----	----	----	----	----	----	
Fe-59	mCi	----	----	----	----	----	----	----	
Co-60	mCi	----	----	----	----	----	----	----	
Zn-65	mCi	----	----	----	----	----	----	----	
Sr-89	mCi	----	----	----	6.30E-06	----	5.57E-09	6.30E-06	
Sr-90	mCi	----	----	----	1.51E-05	2.16E-09	2.78E-09	1.51E-05	
Zr-95	mCi	----	----	----	----	----	----	----	
Nb-95	mCi	----	----	----	----	----	----	----	
Ru-103	mCi	----	----	----	----	----	----	----	
Ag-110m	mCi	----	----	----	----	----	----	----	
Sb-124	mCi	----	----	----	----	----	----	----	
I-131	mCi	----	----	----	----	----	----	----	
Cs-134	mCi	----	----	----	----	----	----	----	
Cs-136	mCi	----	----	----	----	----	----	----	
Cs-137	mCi	----	----	----	----	----	----	----	
Ba-140*	mCi	----	----	----	----	----	----	----	
Ce-141	mCi	----	----	----	----	----	----	----	
Ce-144	mCi	----	----	----	----	----	----	----	
(*La-140 identified but not reported)		----	----	----	----	----	----	----	

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

I. Gaseous Effluents (cont)	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6 MO. TOTAL	TECH. SPEC. REF
3. Main Stack Particulate Release									
a. Gross Radioactivity (β-γ)	milli-curries	1.8E-08	4.43E-03	None Released	None Released	2.56E+00	1.60E00	4.16E+00	6.6.A.4.b
b. Gross Alpha Radioactivity	mCi	<1.4E-8	<3E-09	1.6E-09	*	*	*	1.6E-09	3.11.2.3
c. Isotopes Released					None				3.11.2.3
Cr-51	mCi	---	---	---	Released	---	---	---	
Mn-54	mCi	---	---	---	---	1.52E-02	1.49E-02	3.01E-02	
Co-58	mCi	---	---	---	---	---	---	---	
Fe-59	mCi	---	---	---	---	---	---	---	
Co-60	mCi	---	---	---	---	---	9.2E-03	9.2E-03	
Zn-65	mCi	---	---	---	---	---	---	---	
Sr-89	mCi	<4E-08	<1E-08	<1E-09	*	*	*	<1E-08	
Sr-90	mCi	1.8E-08	1.8E-03	<2E-09	*	*	*	1.8E-03	
Mn-56	mCi	---	---	---	---	1.20E00	9.43E-01	2.14E+00	
Na-24	mCi	---	---	---	---	1.31E00	6.37E-01	1.95E+00	
Ru-103	mCi	---	---	---	---	---	---	---	
Ag-110m	mCi	---	---	---	---	---	---	---	
As-76	mCi	---	---	---	---	3.38E-02	---	3.38E-02	
I-131	mCi	---	---	---	---	---	---	---	
Cs-134	mCi	---	---	---	---	---	---	---	
Cs-136	mCi	---	---	---	---	---	---	---	
Cs-137	mCi	---	---	---	---	---	---	---	
Ba-140 /La-140	mCi	---	---	---	---	---	---	---	
Ce-141	mCi	---	---	---	---	---	---	---	
Ce-144	mCi	---	---	---	---	---	---	---	
Cs-138	mCi	---	2.63E-03	---	---	---	---	2.63E-03	

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS: 50-373 YEAR: 1982

Gaseous Effluents (cont)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6 Mo. TOTAL	TECH SPEC REF
. Main Stack Particulate Release									
. Percent Main Stack limit	%	N/A	N/A	N/A	5.43E-08	7.53E-15	1.03E-11	5.43E-08	6.6.A.4.b.
. Average Release Rate	uCi/sec	N/A	N/A	N/A	1.10E-08	8.33E-13	3.22E-12	1.80E-09	3.11.2.1.b
. Sum of Iodine and		None	None	None					6.6.A.4.b.
Particulate	Curies	Released	Released	Released	2.85E-08	2.16E-12	8.35E-12	2.85E-08	3.11.2.3
. Percent Main Stack									
Limit	%	N/A	N/A	N/A	5.43E-08	7.53E-15	1.03E-11	5.43E-08	
5. Gaseous Tritium		None	None	None	None	None	None	None	6.6.A.4.b
a. Release	Curies	Released	Released	Released	Released	Released	Released	Released	
b. Average Release Rate	uCi/sec	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Percent Tech Spec Limit	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS: 50-373 YEAR: 1982

1. Gaseous Effluents(cont'd	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
3. Main Stack Particulate Release									6.6.A.4.b.
d. Percent Main Stack Limit	%	6.27E-11	6.27E-06	0.00	N/A	6.93E-07	5.7E-07	6.41E-06	
e. Average Release Rate	uCi/sec	6.72E-12	1.65E-06	6.17E-13	N/A	9.87E-04	5.97E-04	2.62E-04	3.11.2.1.b.
4. Sum of Iodine and Particulate	Curies	1.8E-11	4.43E-06	1.6E-12	NONE Released	2.56E-03	1.6E-03	4.16E-03	6.6.A.4.b. 3.11.2.3.
a. Percent Main Stack Limit	%	6.27E-11	6.27E-06	0.00	N/A	6.93E-07	5.7E-07	6.41E-06	
5. Gaseous Tritium		NONE		NONE	NONE	NONE	NONE	NONE	6.6.A.4.b.
a. Release	Curies	Released	<1E-12	Released	Released	Released	Released	Released	
b. Average Release Rate	uCi/sec	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Percent Tech Spec Limit	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

*Data to be presented inan errata to this report.

Table 1.2-1

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

I. Liquid Effluents		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF.
. Gross Radioactivity(β-γ)									
a. Total Release	Curies	None Released	None Released	None Released	None Released	None Released	None Released	None Released	6.6.A.4.b.
b. Avg. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Max. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
d. Percent of Tech Spec (based on Avg. Conc. Released)	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.11.1.1
2. Tritium		None	None	None	None	None	None	None	6.6.A.4.b.
a. Total Release	Curies	Released	Released	Released	Released	Released	Released	Released	
b. Avg. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Percent of Tech Spec	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3. Dissolved Noble Gases		None	None	None	None	None	None	None	6.6.A.4.b.
a. Total Release	Curies	Released	Released	Released	Released	Released	Released	Released	
b. Avg. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Percent of Tech Spec	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.11.1.1.
4. Gross Alpha Radioactivity		None	None	None	None	None	None	None	6.6.A.4.b.
a. Total Release	Curies	Released	Released	Released	Released	Released	Released	Released	
b. Avg. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5. Volume of Liquid Waste	Liters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
6. Volume of Dilution Water	Liters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

II. Liquids Effluents	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF.
1. Gross Radioactivity (β-γ)									
a. Total Release	Curies	5.92E-05	1.29E-04	2.13E-04	3.39E-03	6.37E-03	3.27E-02	4.30E-02	6.6.A.4.b.
b. Avg. Conc. Released	uCi/ml	2.35E-11	5.70E-11	6.45E-11	1.25E-09	4.75E-09	1.79E-08	4.0E-09	
c. Max. Conc. Released	uCi/ml	1.1E-07	1.48E-07	1.37E-06	8.35E-06	4.62E-05	1.28E-04	1.28E-04	
d. Percent of Tech Spec (based on Avg. Conc. Released)	%	1.2E-07	2.22E-07	2.12E-06	1.06E-05	2.34E-06	3.89E-04	4.03E-04	3.11.1.1
2. Tritium									6.6.A.4.b.
a. Total Release	Curies	<1.27E-03	<1.61E-03	*	*	*	*	<2.88E-03	
b. Avg. Conc. Released	uCi/ml	<5.04E-10	<7.12E-10	*	*	*	*	<2.06E-10	
c. Percent of Tech Spec	%	<1.32E-07	<1.67E-07	*	*	*	*	<2.99E-07	
3. Dissolved Noble Gases		NONE	NONE	NONE	NONE	NONE	NONE	NONE	6.6.A.4.b.
a. Total Release	Curies	Released	Released	Released	Released	Released	Released	Released	
b. Avg. Conc. Released	uCi/ml	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
c. Percent of Tech Spec	%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.11.1.1.
4. Gross Alpha Radioactivity									6.6.A.4.b.
a. Total Release	Curies	4.35E-06	7.90E-06	*	*	*	*	1.23E-05	
b. Avg. Conc. Released	uCi/ml	1.73E-12	3.50E-12	*	*	*	*	8.78E-13	
5. Volume of Liquid Waste	Liters	1.27E+06	1.61E06	2.19E06	1.75E06	1.13E06	1.74E06	9.69E06	
6. Volume of Dilution Water	Liters	2.52E04	2.24E09	3.30E09	2.72E09	1.34E09	1.82E09	1.40E10	

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

II. Liquid Effluents(cont'd)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF.
7. Isotopes Released	milli-curies	None Released	None Released	None Released	None Released	None Released	None Released	None Released	
Cr-51	mCi	---	---	---	---	---	---	---	
Mn-54	mCi	---	---	---	---	---	---	---	
Co-58	mCi	---	---	---	---	---	---	---	
Fe-59	mCi	---	---	---	---	---	---	---	
Co-60	mCi	---	---	---	---	---	---	---	
Zn-65	mCi	---	---	---	---	---	---	---	
Sr-89	mCi	---	---	---	---	---	---	---	
Sr-90	mCi	---	---	---	---	---	---	---	
Zr-95	mCi	---	---	---	---	---	---	---	
Nb-95	mCi	---	---	---	---	---	---	---	
Ru-103	mCi	---	---	---	---	---	---	---	
I-131	mCi	---	---	---	---	---	---	---	
Cs-134	mCi	---	---	---	---	---	---	---	
Cs-137	mCi	---	---	---	---	---	---	---	
Ba-140	mCi	---	---	---	---	---	---	---	
La-140	mCi	---	---	---	---	---	---	---	
Ce-141	mCi	---	---	---	---	---	---	---	
Ce-144	mCi	---	---	---	---	---	---	---	
Xe-133	mCi	---	---	---	---	---	---	---	
Xe-133m	mCi	---	---	---	---	---	---	---	
Xe-135	mCi	---	---	---	---	---	---	---	

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

II. Liquid Effluents(cont'd)	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
7. Isotopes Released	milli-curies	5.92E-02	1.22E-01	2.13E-01	3.39E+0	6.37E+0	3.27E+01	4.30E+01	
Cr-51	mCi	---	---	---	4.78E-01	4.30E-01	3.82E+00	4.73E+00	
Mn-54	mCi	---	---	1.73E-02	5.672E-01	1.07E-01	1.71E+01	1.78E+01	
Co-58	mCi	---	1.2E-02	1.82E-01	2.51E-01	6.00E-03	6.77E+00	7.22E+00	
Fe-59	mCi	---	---	---	3.36E-02	7.70E-03	1.1E-01	1.54E-01	
Co-60	mCi	---	---	---	3.47E-02	---	2.86E+00	2.89E+00	
Zn-65	mCi	---	---	---	---	---	2.05E+00	2.05E+00	
Sr-89	mCi	<4.46E-02	<5.66E-03	*	*	*	*	<4.46E-02	
Sr-90	mCi	<5.24E-02	<7.27E-03	*	*	*	*	<5.24E-02	
Mo-99	mCi	---	---	---	---	7.4E-02	---	7.4E-02	
Sb-122	mCi	---	---	---	---	1.79E-02	---	1.79E-02	
Sb-124	mCi	---	---	---	---	2.00E-03	---	2.00E-03	
I-131	mCi	---	---	---	---	---	---	---	
Cs-134	mCi	---	---	---	---	---	---	---	
Cs-137	mCi	---	---	---	---	---	---	---	
As-76	mCi	---	---	---	8.05E-01	7.52E-01	---	1.56E+00	
I-133	mCi	---	---	---	3.5E-03	---	---	3.5E-03	
Ba-140/La-140	mCi	---	---	---	---	---	---	---	
Fe-55	mCi	5.92E-02	1.1E-01	*	*	*	*	1.70E-01	
Na-24	mCi	---	---	1.43E-02	9.59E-01	4.82E+0	---	5.79E+00	
Xe-133	mCi	---	---	---	---	---	---	---	
Xe-133m	mCi	---	---	---	---	---	---	---	
Xe-135	mCi	---	---	---	---	---	---	---	
Tc-99m	mCi	---	---	---	2.55E-01	1.54E-01	---	4.09E-01	

Table 2.0-1

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

11. Solid Waste Shipped Offsite or Burial or Disposal	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF.
. Spent Resins, Filter ludges, Evaporator ottoms, etc.		None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	6.6.A.4.b.
. Quantity	cubic								
Shipped	meters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
. Radioactivity	curies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
. Dry Compressible		None	None	None	None	None	None	None	6.6.A.4.b.
/aste, Contaminated		Shipped	Shipped	Shipped	Shipped	Shipped	Shipped	Shipped	
quipment, etc.									
. Quantity	cubic								
Shipped	meters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
. Radioactivity	curies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table 2.0-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373 YEAR: 1982

III. Solid Waste Shipped Offsite for Burial or Disposal	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH SPEC. REF
1. Spent Resins, Filter Sludges, Evaporator Bottoms, etc.		None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	None Shipped	6.6.A.4.b.
a. Quantity	cubic								
Shipped	meters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
b. Radioactivity	curies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2. Dry Compressible		None	None	None	None	None	None	None	6.6.A.4.b.
Waste, Contaminated		Shipped	Shipped	Shipped	Shipped	Shipped	Shipped	Shipped	
Equipment, etc.									
a. Quantity	cubic								
Shipped	meters	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
b. Radioactivity	curies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Figure 3.1-1

Estimated Cumulative Gamma Dose from the LaSalle Station for the period March-December 1982.

Isopleth Labels
Small figure - multiply by 10^{-7}
Large figure - multiply by 10^{-8}

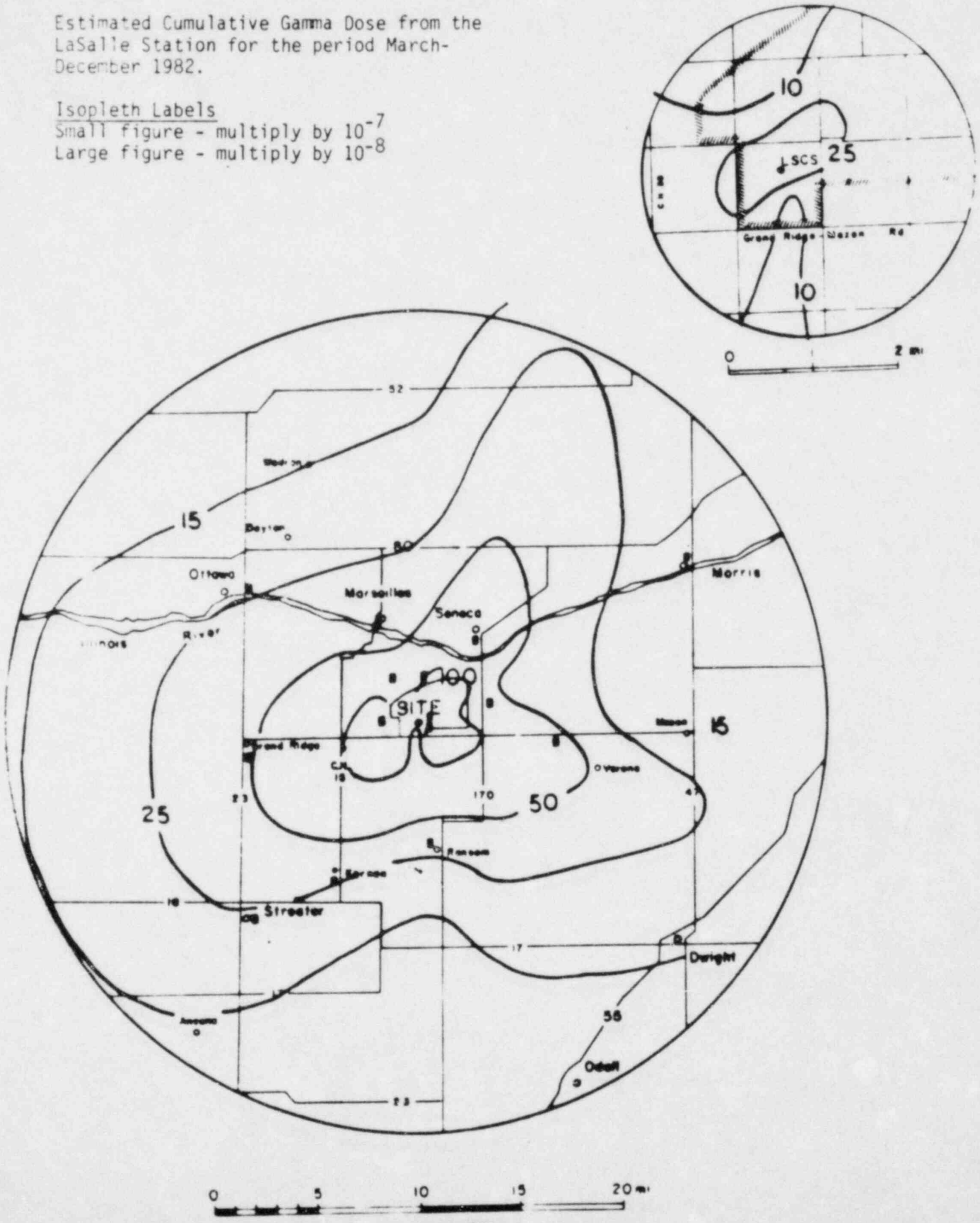


Figure 3.1-2

Estimated Total Concentration of Noble Gases from the LaSalle Station for the period March-December 1982.

Isopleth Labels
Small figure - multiply by 10^{-5}
Large figure - multiply by 10^{-4}

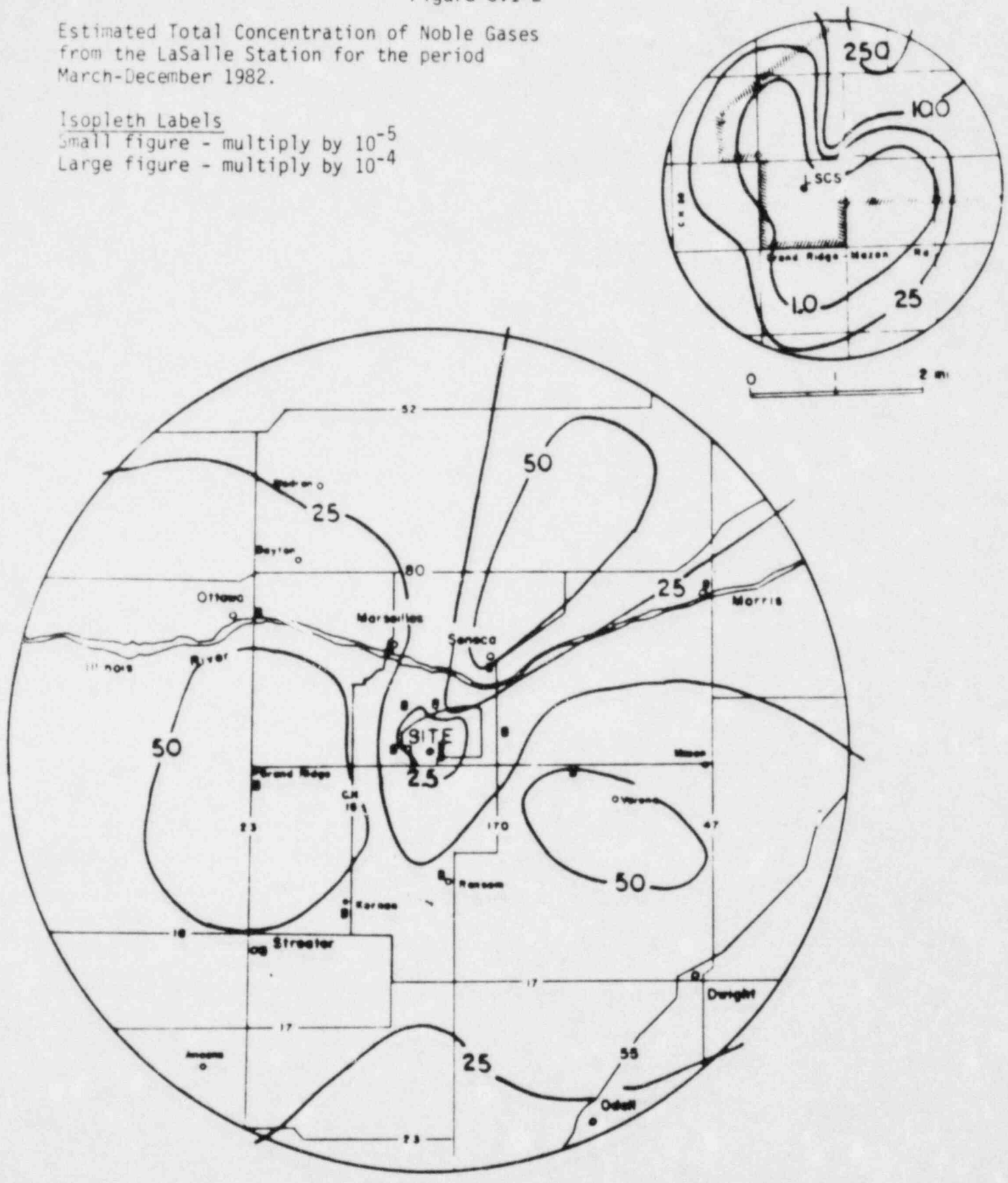


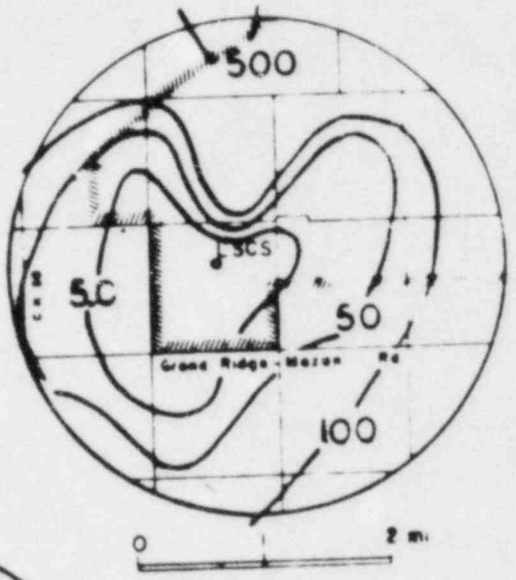
Figure 3.1-3

There were no iodine emissions during the period March - December 1982.

Figure 3.1-4

Estimated Total Concentration of Particulate Matter from the LaSalle Station for the period March-December 1982.

Isopleth Labels
Small figure - multiply by 10^{-8}
Large figure - multiply by 10^{-7}



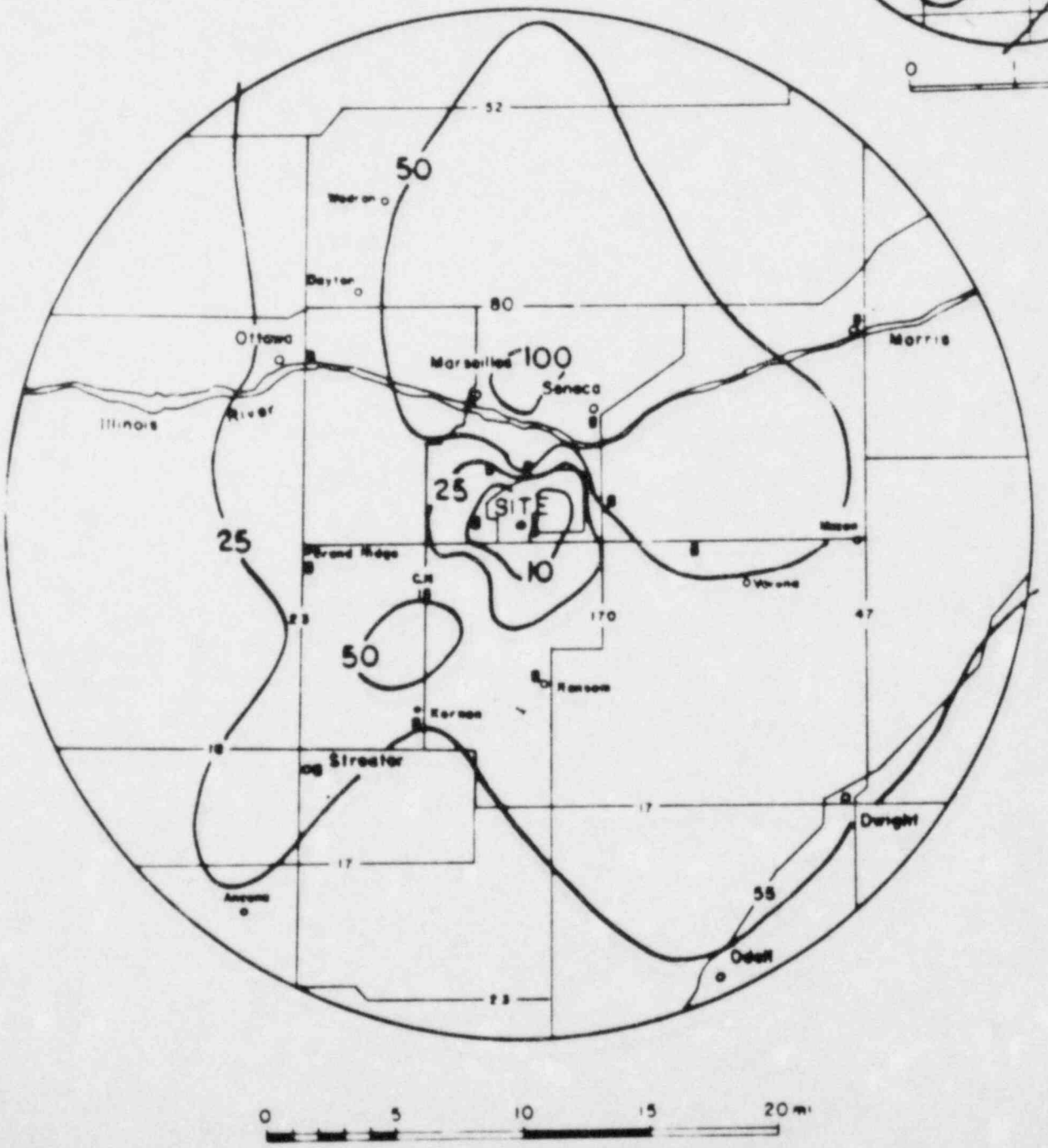


Table 3.1-1

LASALLE UNIT ONE
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 1/ 1/82 TO 12/31/82 CALCULATED 02/10/83

TYPE	1ST QUARTER 1/82- 3/82	2ND QUARTER 4/82- 6/82	3RD QUARTER 7/82- 9/82	4TH QUARTER 10/82-12/82	ANNUAL
GAMMA AIR (MRAD)	2.78E-11 (ESE)	3.37E-06 (ESE)	0.0 ( )	3.86E-10 (ESE)	3.37E-06 (ESE)
BETA AIR (MRAD)	3.15E-11 (E)	3.83E-06 (E)	0.0 ( )	3.33E-11 (E)	3.83E-06 (E)
TOT. BODY (MREM)	8.40E-12 (ESE)	1.02E-06 (ESE)	0.0 ( )	2.12E-10 (ESE)	1.02E-06 (ESE)
SKIN (MREM)	3.04E-11 (ESE)	3.70E-06 (ESE)	0.0 ( )	3.26E-10 (ESE)	3.70E-06 (ESE)
ORGAN (MREM)	0.0 ( )	0.0 ( )	2.25E-12 (ESE)	1.90E-07 (E)	1.90E-07 (E)
	BONE LIVER THYROID KIDNEY LUNG GI-LLI	BONE LIVER THYROID KIDNEY LUNG GI-LLI	GI-LLI	GI-LLI	GI-LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 1982

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	% OF APP I. 1ST QTR 1/82- 3/82	2ND QTR 4/82- 6/82	3RD QTR 7/82- 9/82	4TH QTR 10/82- 12/82	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.0	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.0	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.0	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.0	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.0	0.0	0.00	0.00	15.0	0.00
		BONE LIVER THYROID KIDNEY LUNG GI-LLI	BONE LIVER THYROID KIDNEY LUNG GI-LLI	GI-LLI	GI-LLI		GI-LLI

Table 3.2-1

LASALLE UNIT ONE
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERICD OF RELEASE - 1/ 1/82 TO 12/31/32 CALCULATED 02/10/83 *

DOSE TYPE	1ST QUARTER 1/82- 3/82	2ND QUARTER 4/82- 6/82	3RD QUARTER 7/82- 9/82	4TH QUARTER 10/82-12/82	ANNUAL
TOTAL BODY	0.0	0.0	1.17E-08	7.86E-06	7.87E-06
INTERNAL ORGAN	0.0	0.0	1.15E-07	4.13E-05	4.14E-05
	BONE	BONE	GI-LLI	GI-LLI	GI-LLI
	LIVER	LIVER			
	THYROID	THYROID			
	KIDNEY	KIDNEY			
	LUNG	LUNG			
	GI-LLI	GI-LLI			

* THIS IS A REPORT FOR THE CALENDAR YEAR 1982

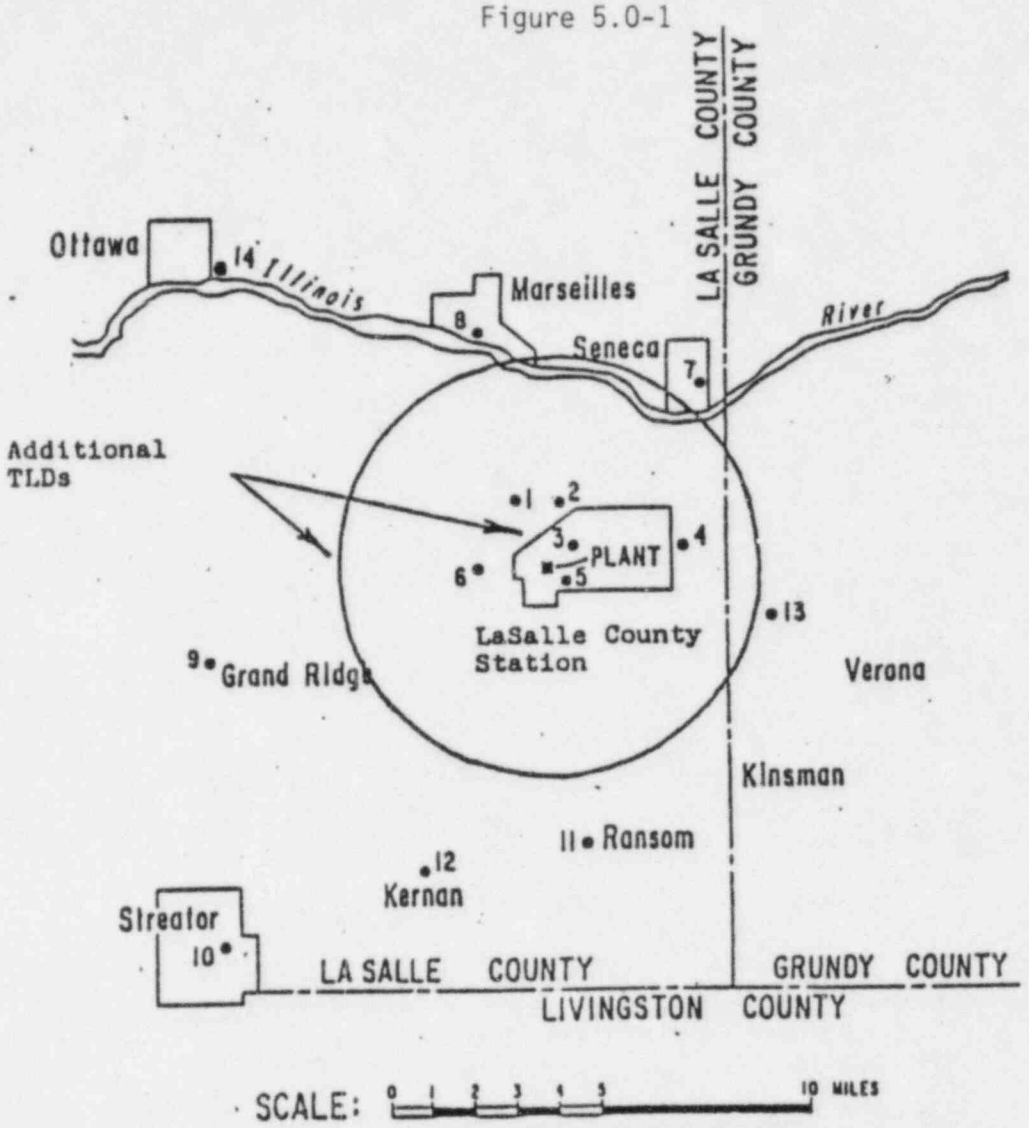
COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	% OF APP I. 1ST QTR 1/82- 3/82	2ND QTR 4/82- 6/82	3RD QTR 7/82- 9/82	4TH QTR 10/82- 12/82	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.0	0.0	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.0	0.0	0.00	0.00	10.0	0.00
		BONE	BONE	GI-LLI	GI-LLI		GI-LLI
		LIVER	LIVER				
		THYROID	THYROID				
		KIDNEY	KIDNEY				
		LUNG	LUNG				
		GI-LLI	GI-LLI				

LASALLE COUNTY NUCLEAR POWER STATION

LOCATIONS OF FIXED ENVIRONMENTAL RADIOLOGICAL MONITORING STATIONS

Figure 5.0-1



Air Samplers

1 - Nearsite 1
2 - Onsite 2
3 - Onsite 3
4 - Nearsite 4
5 - Onsite 5
6 - Nearsite 6
7 - Seneca
8 - Marseilles
9 - Grand Ridge
10 - Streator
11 - Ransom
12 - Kernan
13 - Route 6 at Gonnam Road
14 - Ottawa

TLD

Same as air samplers plus a sufficient number of additional dosimeters placed near the site and near 5 miles to assure that one dosimeter is located at each range in each of the 16 meteorological sectors.

LASALLE COUNTY NUCLEAR POWER STATION

Standard Radiological Sampling Program

Loc. Code	Type[a]	Location Description	Media										
			Air Samples	TLDs	Surface Water	Well Water	Fish	Aquatic Plants	Sediments	Milk	Precipitation	Feed & Grass	Vegetables
L-01		Nearsite No. 1	X	X									
L-02		Onsite No. 2	X	X									
L-03		Onsite No. 3	X	X									
L-04		Nearsite No. 4	X	X									
L-05		Onsite No. 5	X	X									
L-06		Nearsite No. 6	X	X									
L-07		Seneca	X	X									
L-08		Marseilles	X	X									
L-09	C	Grand Ridge	X	X									
L-10	C	Streator	X	X									
L-11		Ransom	X	X									
L-12	C	Kerman	X	X									
L-13		Route 6 at Gonnam Road	X	X									
L-14	C	Ottawa	X	X									
L-15		Johnson Dairy								X	X	X	
L-16		Lowery Dairy								X	X	X	
L-17	C	Norsen Dairy								X	X	X	
L-18	C	Sunnyisle Dairy								X	X	X	
L-19		Illinois River at Marseilles			X								
L-20		Illinois River at Ottawa			X								
L-21	C	Illinois River at Seneca			X								
L-22		South Kickapoo Creek			X								
L-23		Illinois Nitrogen Corp.			X								
L-24		LSCS Cooling Lake near recreation area			X		X	X	X				
L-25		LSCS intake pipe/river			X								
L-26		LSCS discharge pipe/river			X								
L-27		LSCS onsite well				X							
L-28		Marseilles Well Water				X							
L-29	C	Seneca Well Water				X							
L-30		Ransom Well Water				X							
L-31		Ottawa Well Water				X							
L-32		Illinois State Park				X							
L-33	C	Just upstream of cooling lake inlet structure						X	X				
L-34		Just downstream of cooling lake discharge structure						X	X				
L-35		Marseilles Pool of Illinois River					X						
L-36		Farm A - vegetables											X
L-37		Farm B - vegetables											X

[a] Control (background) locations are indicated by a "C" in this column. All other locations are indicator.

Table 5.0-1

LaSalle County Radiological Monitoring Program, Sample Collection and Analyses.

Sample Media	Location Code	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis	Remarks
1. Airborne Particulates	L-1	Nearsite No. 1	Weekly	Gross beta	Weekly	On all samples.
				Gamma Isot	Quarterly	On quarterly composites from each location.
	L-2	Onsite No. 2		Sr-89,90	Quarterly	On quarterly composites from each location.
	L-3	Onsite No. 3				
	L-4	Nearsite No. 4				
	L-5	Onsite No. 5				
	L-6	Nearsite No. 6				
	L-7	Seneca				
	L-8	Marseille				
	L-9	Grand Ridge				
	L-10	Streator				
	L-11	Ransom				
	L-12	Kernan				
	L-13	Route 6 at Gonnam Rd.				
	L-14	Ottawa				
2. Airborne Iodine	Same as 1.		Bi-weekly	I-131	Bi-weekly	Bi-weekly = every 2 weeks, on all samples.
3. TLD	Same as 1.		Quarterly	Gamma	Quarterly	Two sets at all AP locations. One set read quarterly. Second set read if required by Edison. At other locations, all sets read quarterly.
	L-101-07	Inner Ring				
	L-201-16	Outer Ring				
4. Milk	L-15	Johnson Dairy	Weekly: Apr to Sep	I-131	Weekly	May thru October only. LLD: 0.5 pCi/l
	L-16	Sunnyisle Farm	Monthly: Oct to Mar	Gamma Isot	Monthly	
	L-17	Norsen Dairy		Sr-89,90	Monthly	
	L-18	Rinker Dairy				
5. Surface Water	L-19	Illinois River at Marseilles	Weekly	Gross beta	Weekly	On all samples.
				Gamma Isot	Monthly	On monthly composites from each location.
	L-20	Ill. River at Ottawa		Tritium	Quarterly	On quarterly composites from each location.
	L-21	Ill. River at Seneca		Sr-89,90	Quarterly	On quarterly composites from each location.
	L-22	South Kickapoo Creek				
	L-23	Ill. River at Intake to Nitrogen Corp.				
	L-24	LSCS Cooling Lake near Rec. area				
6. Cooling Water	L-25	LSCS intake pipe/ river	Weekly	Gross beta	Weekly	On all samples.
				Gamma Isot	Monthly	On monthly composites from each location.
	L-26	LSCS discharge pipe/ river		Tritium	Monthly	On monthly composites from each location.
				Sr-89,90	Monthly	On monthly composites from each location.

Table 5.0-1 (continued)

LaSalle County Radiological Monitoring Program, Sample Collection and Analyses.

Sample Media	Location Code	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis	Remarks
7. Precipitation	Same as 4.		Monthly	Gross beta	Monthly	On all samples.
				Gamma Isot	Quarterly	On quarterly composites from each location.
				Tritium	Quarterly	On quarterly composites from each location.
				Sr-89,90	Quarterly	On quarterly composites from each location.
8. Well Water, Offsite	L-28	Marseilles Well	Quarterly	Gross beta	Quarterly	On all samples.
	L-29	Seneca Well		Gamma Isot		
	L-30	Ransom Well		Tritium		
	L-31	Ottawa Well		Sr-89,90		
	L-32	Illinois State Park Well				
9. Well Water, Onsite	L-27	LSCS Onsite Well	Monthly	Gross beta	Monthly	
				Gamma Isot	Quarterly	On quarterly composite.
				Tritium	Quarterly	On quarterly composite.
				Sr-89,90	Quarterly	On quarterly composite.
10. Vegetables	L-36	Farm A	Annually at harvest	Gross beta	Annually	Four varieties from each location.
	L-37	Farm B		Gamma Isot	Annually	
				Sr-89,90	Annually	
11. Green Leafy Vegetables	Same as 10.		Annually at harvest	I-131	Annually	
12. Cattle Feed and Grass	Same as 4.		Quarterly	Gross beta	Quarterly	Cattle Feed: winter
				Gamma Isot	Quarterly	Grass: summer
				Sr-89,90	Quarterly	
13. Fish	L-24	LSCS Cooling Lake	Three times a year	Gross beta	Three times a year	On edible portions only.
	L-35	Marseilles Pool		Gamma Isot	Three times a year	On edible portions only.
				Sr-89,90	Three times a year	On edible portions only.

Table 5.0-1 (continued)

LaSalle County Radiological Monitoring Program, Sample Collection and Analyses

Sample Media	Location Code	Location Site	Collection Frequency	Type of Analysis	Frequency of Analysis	Remarks
14. Aquatic Plants	L-24	LSCS cooling Lake	Three times a year, if available	Gross beta	Three times a year	
	L-33	Upstream of cooling lake		Gamma Isot	Three times a year	
	L-34	Downstream of cooling lake				
15. Bottom Sediments	Same as 14.		Three times a year	Gross beta	Three times a year	
				Gamma Isot	Three times a year	
16. Dairy Census	(a) Site boundary to 2 miles (b) 2 miles to 5 miles (c) At dairies listed in item 7				Annually	During grazing season
17. Nearest Residence Census	In all 16 sectors				Annually	

Table 5.0-2

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Docket No. 50-254, 50-265

Location of facility Marseilles, Illinois (County, State) Reporting Period 1st Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean Range	Control Locations Mean[a] Range	Number of non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 175	0.01	0.027 (118/126) (0.011-0.047)	L-08, Marseilles 7.0 mi @ 326	0.035 (12/13) (0.019-0.045)	0.028 (41/49) (0.014-0.051)	0
	Gamma Spec. 14	0.01	<LLD	-	-	<LLD	0
	Sr-89 14	0.01	<LLD	-	-	<LLD	0
	Sr-90 14	0.01	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 96	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 14	3.0	13.5 (10/10) (12.5-14.7)	L-05, On-site # 5 0.3 mi @ 145°	14.7 (1/1) -	12.5 (4/4) (12.1-13.2)	0
Milk (pCi/l)	Gamma Spec. 12						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Sr-89 12	10	<LLD	-	-	<LLD	0
	Sr-90 12	2	2.6 (1/6) -	L-15, Johnson Dairy 7.6 mi @ 258°	2.6 (1/6) -	2.2 (2/6) (2.2-2.2)	0
Precipitation	Gross Beta 12	12.1	<LLD	L-18, Sunnyisle Farm 8.8 mi @ 22°	28.5 (3/3) (16.1-42.6)	25.2 (4/6) (15.4-42.6)	0
	Gamma Spec. 4	10	<LLD	-	-	<LLD	0
	Tritium 4	200	<LLD	-	-	<LLD	0
	Sr-89 4	10	<LLD	-	-	<LLD	0
	Sr-90 4	2	<LLD	-	-	<LLD	0
Cooling Water (pCi/l)	Gross Beta 26	2.0	5.8 (24/26) (2.4-11.9)	L-26, LCSC Discharge Pipe - River at Station	7.7 (13/13) (2.7-11.9)	None	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	None	0
	Cs-137	10	<LLD	-	-	None	0
	Other gammas	20	<LLD	-	-	None	0
	Tritium 6	200	<LLD	-	-	None	0
	Sr-89 6	10	<LLD	-	-	None	0
	Sr-90 6	2	<LLD	-	-	None	0

Table 5.0-2 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 1st Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Surface Water (pCi/l)	Gross Beta 78	2.0	4.9 (63/65) (2.2-18.1)	L-24, Recreational Area Cooling Lake 0.3 mi @ 112°	5.7 (13/13) (4.0-7.8)	5.0 (13/13) (3.5-9.4)	0
	Gamma Spec. 18						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Well Water (pCi/l)	Gross Beta 8	5.6	19.8 (6/7) (9.8-27.3)	L-32, Ill Stat Park Well 6.5 mi @ 326°	27.2 (1/1) -	13.9 (1/1) -	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Cattlefeed & Grass (pCi/g wet)	Gross Beta 10	2.0	11.3 (5/5) (4.0-25.5)	L-18, Sunnyisle Farm 8.8 mi @ 220°	23.9 (2/2) (4.5-43.3)	14.7 (5/5) (3.4-43.3)	0
	Gamma Spec. 10						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 6	1.0	<LLD	-	-	<LLD	0
	Sr-90 6	1.0	<LLD	-	-	<LLD	0

[a] Mean and range based on detectable measurements only. Fraction indicated in parenthesis.

Table 5.0-3

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Docket No. 50-254, 50-265

Location of facility Marseilles, Illinois (County, State) Reporting Period 2nd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Air Particulates (pCi/m^3)	Gross Beta 181	0.01	0.019 (114/129) (0.011-0.037)	L-13, Rt. 6 at Gonnam Rd. 4.3 mi @ 100°	0.024 (12/13) (0.014-0.037)	0.018 (46/52)	0
	Gamma Spec. 14	0.01	<LLD	-	-	<LLD	0
	Sr-89 14	0.01	<LLD	-	-	<LLD	0
	Sr-90 14	0.01	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 84	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 14	3.0	17.7 (10/10) (16.0-18.9)	L-08, Marseilles 7.0 mi @ 326°	18.9 (1/1) -	17.1 (4/4) (14.6-18.6)	0
Milk (pCi/l)	I-131 36	0.5	<LLD	-	-	<LLD	0
	Gamma Spec. 12						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Sr-89 12	10	<LLD	-	-	<LLD	0
	Sr-90 12	2	2.6 (1/6) -	L-15, Johnson Dairy 7.8 mi @ 258°	2.6 (1/6) -	2.4 (3/6) (2.1-2)	0
Precipitation	Gross Beta 12	12.9	30.5 (4/6) (16.7-70.8)	L-15, Johnson Dairy 7.8 mi @ 258°	35.7 (3/4) (16.7-70.8)	25.9 (4/6) (13.0-29.6)	0
	Gamma Spec. 4	10	<LLD	-	-	<LLD	0
	Tritium 4	200	<LLD	-	-	<LLD	0
	Sr-89 4	10	<LLD	-	-	<LLD	0
	Sr-90 4	2	<LLD	-	-	<LLD	0
Cooling Water (pCi/l)	Gross Beta 26	2.0	4.9 (26/26) (2.5-8.6)	L-26, LCSC Discharge Pipe - River at Station	5.9 (13/13) (3.8-8.6)	None	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	None	0
	Cs-134	10	<LLD	-	-	None	0
	Other gammas	20	<LLD	-	-	None	0
	Tritium 6	200	<LLD	-	-	None	0
	Sr-89 6	10	<LLD	-	-	None	0
	Sr-90 6	2	<LLD	-	-	None	0

Table 5.0-3 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 2nd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Surface Water (pCi/l)	Gross Beta 78	2.0	4.4 (65/65) (2.3-7.1)	L-24, Recreational Area Cooling Lake 0.3 mi @ 112°	5.6 (13/13) (4.6-6.4)	4.1 (13/13) (2.6-5.5)	0
	Gamma Spec. 18						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Well Water (pCi/l)	Gross Beta 8	5.0	17.4 (7/7) (9.8-25.5)	L-32, Ill. State Park Well 6.5 mi @ 326°	25.5 (1/1) -	17.7 (1/1) -	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gross Beta 11	2.0	3.1 (11/11) (2.4-3.4)	L-24, Cooling pond 0.3 mi @ 112°	3.1 (6/6) (2.9-3.4)	None	0
	Gamma Spec. 11						
	Cs-134	0.1	<LLD	-	-	None	0
	Cs-137	0.1	<LLD	-	-	None	0
	Other gammas	0.2	<LLD	-	-	None	0
	Sr-89 11	0.1	<LLD	-	-	None	0
	Sr-90 11	0.1	<LLD	-	-	None	0

Table 5.0-3 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 2nd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Cattlefeed & Grass (pCi/g wet)	Gross Beta 4	2.0	7.8 (2/2) (7.5-8.1)	L-15, Johnson Dairy 7.8 mi @ 258°	8.1 (1/1)	7.6 (2/2) (7.3-7.8)	0
	Gamma Spec. 4						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 4	1.0	<LLD	-	-	<LLD	0
	Sr-90 4	1.0	<LLD	-	-	<LLD	0
Aquatic Vegetation (pCi/g wet)	Gross Beta 3	1.0	3.2 (2/2) (2.2-4.3)	L-34, Downstream of Cooling Lake 4.8 mi @ 350°	4.3 (1/1) -	1.7 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gross Beta 3	10	26.4 (2/2) (26.4-26.5)	L-33, Upstream of Cooling Lake 4.7 mi @ 354°	29.6 (1/1) -	29.6 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0

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

Table 5.0-4

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Docket No. 50-254, 50-265

Location of facility Marseilles, Illinois (County, State) Reporting Period 3rd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Air Particulates (pCi/m^3)	Gross Beta 182	0.01	0.020 (121/130) (0.011-0.036)	L-01,Near Site #1 0.5 mi @ 326°	0.023 (10/13) (0 015-0.035)	0.018 (50/52) (0.011-0.031)	0
	Gamma Spec. 14	0.01	<LLD	-	-	<LLD	0
	Sr-89 14	0.01	<LLD	-	-	<LLD	0
	Sr-90 14	0.01	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 98	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 14	3.0	15.1 (10/10) (13.9-16.7)	L-01, Near Site #1 0.5 mi @ 326°	16.7 (1/1) -	14.7 (4/4) (13.8-15.7)	0
Milk (pCi/l)	I-131 52	0.5	<LLD	-	-	<LLD	0
	Gamma Spec. 12						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Sr-89 12	10	<LLD	-	-	<LLD	0
	Sr-90 12	2	2.3 (2/6) (2.2-2.4)	L-18, Sunnyisle Farm 8.8 mi @ 220°	2.7 (1/6) -	2.7 (1/6)	0
Precipitation	Gross Beta 12	14.0	27.7 (4/6) (16.5-38.9)	L-15, Johnson Dairy 7.8 mi @ 258°	38.9 (1/3)	32.8 (1/6)	0
	Gamma Spec. 4	10	<LLD	-	-	<LLD	0
	Tritium 4	200	<LLD	-	-	<LLD	0
	Sr-89 4	10	<LLD	-	-	<LLD	0
	Sr-90 4	2	<LLD	-	-	<LLD	0
Cooling Water (pCi/l)	Gross Beta 26	2.0	5.0 (25/26) (2.8-8.0)	L-26, LCSC Discharge Pipe - River at Station	6.6 (13/13) (4.9-8.0)	None	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	None	0
	Cs-137	10	<LLD	-	-	None	0
	Other gammas	20	<LLD	-	-	None	0
	Tritium 6	200	<LLD	-	-	None	0
	Sr-89 6	10	<LLD	-	-	None	0
	Sr-90 6	2	<LLD	-	-	None	0

Table 5.0-4 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 3rd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Surface Water (pCi/l)	Gross Beta 78	2.0	4.3 (65/65) (2.5-6.5)	L-24, Recreational Area Cooling Lake 0.3 mi @ 112°	5.1 (13/13) (3.4-6.5)	4.9 (13/13) (3.6-6.0)	0
	Gamma Spec. 18						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Well Water (pCi/l)	Gross Beta 8	5.0	13.5 (7/7) (11.4-18.0)	L-32, Ill. State Park Well 6.5 mi @ 326°	16.2 (1/1) -	15.9 (1/1) -	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gross Beta 14	2.0	3.1 (14/14) (2.5-3.7)	L-35, Marseilles Pool - Illinois River 6.5 mi @ 326°	3.4 (7/7) (2.7-3.7)	None	0
	Gamma Spec. 14						
	Cs-134	0.1	<LLD	-	-	None	0
	Cs-137	0.1	<LLD	-	-	None	0
	Other gammas	0.2	<LLD	-	-	None	0
	Sr-89 14	0.1	<LLD	-	-	None	0
	Sr-90 14	0.1	<LLD	-	-	None	0

Table 5.0-4 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 3rd Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Cattlefeed & Grass (pCi/g wet)	Gross Beta 4	2.0	7.3 (2/2) (7.3-7.3)	L-15, Johnson Dairy 7.8 mi @ 258°	7.3 (1/1)	6.0 (2/2) (5.2-6.8)	0
				L-16, Lowery Dairy 7.2 mi @ 120°	7.3 (1/1)		
	Gamma Spec. 4						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 4	1.0	<LLD	-	-	<LLD	0
	Sr-90 4	1.0	<LLD	-	-	<LLD	0
Aquatic Vegetation (pCi/g wet)	Gross Beta 3	1.0	1.8 (2/2) (1.3-2.2)	L-33, Upstream of Cooling Lake 4.7 mi @ 354°	3.1 (1/1) -	3.1 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gross Beta 3	10	24.7 (2/2) (22.3-27.1)	L-33, Upstream of Cooling Lake 4.7 mi @ 354°	29.9 (1/1) -	29.9 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
Vegetables (pCi/g wet)	Gross Beta 10	1.0	2.4 (10/10) (1.5-4.2)	L-36, Farm A	2.8 (5/5) (1.8-4.2)	None	0
	Gamma Spec. 10						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 10	1.0	<LLD	-	-	<LLD	0
	Sr-90 10	1.0	<LLD	-	-	<LLD	0
	I-131 3	0.041	<LLD	-	-	<LLD	0

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

Table 5.0-5

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Docket No. 50-254, 50-265

Location of facility Marseilles, Illinois (County, State) Reporting Period 4th Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean Range	Control Locations Mean[a] Range	Number of non-routine Results
Air Particulates (pCi/m^3)	Gross Beta 182	0.01	0.021 (127/130) (0.011-0.037)	L-14, Ottawa 12.0 mi @ 315°	0.027 (13/13) (0.012-0.056)	0.023 (50/52) (0.012-0.056)	0
	Gamma Spec. 14	0.01	<LLD	-	-	<LLD	0
	Sr-89 14	0.01	<LLD	-	-	<LLD	0
	Sr-90 14	0.01	<LLD	-	-	<LLD	0
Airborne Iodine (pCi/m^3)	I-131 98	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose 14	3.0	15.7 (10/10) (12.9-17.9)	L-01, On-site # 1 0.5 mi @ 326°	17.9 (1/1) -	15.1 (4/4) (13.8-16.8)	0
Milk (pCi/l)	I-131 28	5/0.5*	<LLD	-	-	<LLD	0
	Gamma Spec. 12						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Sr-89 12	10	<LLD	-	-	<LLD	0
	Sr-90 12	2	2.3 (1/6) -	L-16, Lowery Dairy 7.2 mi @ 258°	2.3 (1/3) -	2.2 (3/6) (2.1-2.5)	0
				L-17, Norsen Dairy 9.0 mi @ 337°	2.3 (2/3)		
Precipitation (pCi/l)	Gross Beta 12	17.3	60.6 (1/6)	L-15, Johnson Dairy 7.8 mi @ 258°	60.6 (1/3)	<LLD	0
	Gamma Spec. 4	10	<LLD	-	-	<LLD	0
	Tritium 4	200	<LLD	-	-	<LLD	0
	Sr-89 4	10	<LLD	-	-	<LLD	0
	Sr-90 4	2	<LLD	-	-	<LLD	0
Cooling Water (pCi/l)	Gross Beta 28	2.0	5.6 (28/28) (2.6-8.7)	L-26, LCSC Discharge Pipe - River at Station	6.6 (14/14) (3.6-8.4)	None	0
	Gamma Spec 6						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0

Table 5.0-5 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 4th Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Surface Water (pCi/l)	Gross Beta 84	2.0	5.4 (70/70) (2.1-9.2)	L-21, Illinois River at Seneca 4.0 mi @ 22°	6.6 (14/14) (4.0-7.9)	6.6 (14/14) (4.0-7.9)	0
	Gamma Spec. 18						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Well Water (pCi/l)	Gross Beta 8	5.0	18.5 (7/7) (13.4-25.7)	L-32, Ill Stat Park Well 6.5 mi @ 326°	25.7 (1/1) -	17.7 (1/1) -	0
	Gamma Spec. 6						
	Cs-134	10	<LLD	-	-	<LLD	0
	Cs-137	10	<LLD	-	-	<LLD	0
	Other gammas	20	<LLD	-	-	<LLD	0
	Tritium 6	200	<LLD	-	-	<LLD	0
	Sr-89 6	10	<LLD	-	-	<LLD	0
	Sr-90 6	2	<LLD	-	-	<LLD	0
Fish (pCi/g wet)	Gross Beta 10	2.0	3.3 (10/10) (2.7-3.9)	L-35, Marseilles Pool Ill. River 6.5 mi @ 326°	3.3 (5/5) (2.8-3.7)	None	0
	Gamma Spec. 10						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 10	0.1	<LLD	-	-	<LLD	0
	Sr-90 10	0.1	<LLD	-	-	<LLD	0

Table 5.0-5 (continued)

Environmental Radiological Monitoring Program Quarterly Summary

Name of facility LaSalle Nuclear Power Station Reporting Period 4th Quarter 1982

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Annual Mean		Control Locations Mean[a] Range	Number of non-routine Results
				Location	Mean Range		
Cattlefeed & Grass (pCi/g wet)	Gross Beta 4	2.0	8.7 (2/2) (8.4-9.0)	L-17, Norsen Dairy 9.0 mi @ 337°	11.9 (1/1)	10.4 (2/2) (8.9-11.9)	0
	Gamma Spec. 4						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
	Sr-89 4	1.0	<LLD	-	-	<LLD	0
	Sr-90 4	1.0	<LLD	-	-	<LLD	0
Aquatic Vegetation (pCi/g wet)	Gross Beta 3	1.0	2.2 (2/2) (2.0-2.4)	L-34, Downstream of Cooling Lake 4.8 mi @ 350°	2.4 (1/1) -	1.0 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0
Bottom Sediments (pCi/g dry)	Gross Beta 3	10	22.4 (2/2) (21.7-23.0)	L-33, Upstream of Cooling Lake 4.7 mi @ 354°	27.0 (1/1) -	27.0 (1/1) -	0
	Gamma Spec. 3						
	Cs-134	0.1	<LLD	-	-	<LLD	0
	Cs-137	0.1	<LLD	-	-	<LLD	0
	Other gammas	0.2	<LLD	-	-	<LLD	0

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

* May - Ocotber LLD = 0.5, November - April LLD = 5.0.

LASALLE COUNTY NUCLEAR POWER STATION

Table 5.1-1

Gamma Radiation, as measured by Thermoluminescent Dosimeters (TLDs)

Standard Radiological Monitoring Program.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date Placed:	01/02/82, 01/10/82*	04/03/82	07/03/82	10/02/82
Date Removed	04/03/82	07/03/82	10/02/82	12/31/82
Days in the Field	91,83*	91	91	90

Location		Average mR/Qtr.			
On-Site and Near-Site Indicator Locations					
L-01	Near Site No. 1	14.4±0.9	18.1±1.1	16.7±1.0	17.9±0.9
L-02	On-Site No. 2	13.5±0.7	17.8±1.0	14.2±0.6	15.6±0.6
L-03*	On-Site No. 3	13.6±0.5*	17.7±1.1	13.9±1.1	15.7±0.8
L-04	Near-Site No. 4	12.9±0.3	17.4±0.8	15.0±0.7	15.5±0.7
L-05	On-Site No. 5	14.7±1.0	18.7±1.0	16.4±0.7	17.6±0.6
L-06	Near-Site No. 6	13.6±1.0	18.2±0.8	15.8±0.4	16.0±1.8
	Mean ± s.d.	13.8±0.7	18.0±0.4	15.3±1.2	16.6±1.1
Off-Site Indicator Locations					
L-07	Seneca	12.8±0.6	17.3±0.2	14.4±0.9	16.5±0.6
L-08	Marseilles	14.4±0.7	18.9±0.6	15.5±1.0	16.2±0.4
L-11	Ransom	12.5±0.4	16.0±0.5	15.0±2.2	12.9±1.0
L-13	Rt. 6/Gonnam Road	12.8±0.4	17.2±0.7	14.5±0.6	13.4±2.3
	Mean ± s.d.	13.1±0.9	17.4±1.2	14.8±0.5	14.8±1.9
Background Locations					
L-09	Grand Ridge	12.6±0.5	17.4±0.5	13.8±0.9	14.9±0.4
L-10	Streator	12.1±0.8	14.6±0.6	15.7±2.2	14.7±0.4
L-12	Kernan	12.1±0.4	17.7±0.5	14.2±0.6	13.8±1.4
L-14	Ottawa	13.2±0.7	18.6±0.3	15.0±1.7	16.8±0.6
	Mean ± s.d.	12.5±0.5	17.1±1.7	14.7±0.8	15.1±1.3

LASALLE COUNTY NUCLEAR POWER STATION

Table 5.1-1 (continued)

Gamma radiation, as measured by Thermoluminescent Dosimeters (TLDs)

Special Program.

Inner Ring, Near Site Boundary, Indicator Locations.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date Placed:	01/02/82	04/03/82	07/03/82	10/02/82
Date Removed	04/03/82	07/03/82	10/02/82	12/31/82
Days in the Field	91	91	91	90

Location	Average mR/Qtr.			
L-100-1	14.0±0.5	20.4±0.5	16.2±0.7	18.3±1.1
L-100-2	14.5±0.8	18.9±0.8	15.6±0.7	18.3±0.9
L-101-1	14.3±0.3	19.9±0.7	17.1±0.8	17.9±1.3
L-101-2	14.0±0.5	19.1±0.6	17.7±1.5	17.8±1.3
L-102-1	14.2±0.5	19.9±0.7	17.1±0.8	17.4±0.5
L-102-2	14.3±0.9	19.1±0.6	15.5±1.0	17.0±1.2
L-103-1	14.7±0.6	18.9±0.7	15.6±0.4	18.6±0.5
L-103-2	15.0±0.4	18.8±1.1	16.1±1.3	17.6±0.9
L-104-1	14.9±0.7	19.9±0.7	14.6±0.6	18.4±0.3
L-104-2	15.9±0.8	19.4±0.9	16.1±0.5	18.0±1.3
L-105-1	15.3±0.9	19.2±0.6	17.6±1.0	17.3±0.2
L-105-2	16.2±0.8	20.0±1.1	14.9±0.5	18.4±1.3
L-106-1	16.4±0.7	20.9±0.7	15.9±0.4	19.1±0.9
L-106-2	15.4±0.6	20.8±1.3	17.0±0.7	19.1±1.0
L-107-1	16.0±0.6	19.2±0.9	17.6±2.3	19.4±0.8
L-107-2	15.6±0.6	19.8±0.6	15.5±1.4	18.9±0.3
Mean ± s.d.	15.0±0.8	19.6±0.7	16.3±1.0	18.2±0.7

LASALLE COUNTY NUCLEAR POWER STATION

Table 5.1-1 (continued)

Gamma radiation, as measured by Thermoluminescent Dosimeters (TLDs)

Special Program.

Outer Ring, Near 5 Miles Radius, Indicator Locations.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date Placed:	01/02/82	04/03/82	07/03/82	10/02/82
Date Removed	04/03/82	07/03/82	10/02/82	12/31/82
Days in the Field	91	91	91	90
Location	Average mR/Qtr.			
L-201-1	15.7±0.7	19.3±0.6	16.4±0.6	18.4±0.8
L-201-2	15.7±0.4	19.9±0.8	15.4±0.6	17.3±0.6
L-202-1	14.6±0.6	18.7±0.8	16.8±2.2	17.7±0.9
L-202-2	14.6±0.9	19.0±1.3	15.5±0.8	17.4±0.6
L-203-1	15.3±0.7	18.5±0.8	18.2±1.8	17.0±0.7
L-203-2	15.5±0.5	19.5±0.7	15.8±0.8	16.8±1.5
L-204-1	15.9±0.9	19.0±0.6	15.7±0.7	18.1±0.8
L-204-2	15.4±0.6	18.4±0.8	14.7±1.3	18.5±0.7
L-205-1	16.6±0.6	20.1±0.3	15.9±0.7	18.7±1.2
L-205-2	16.1±0.5	20.8±1.4	16.2±0.7	17.9±0.8
L-206-1	15.7±0.5	19.2±0.6	15.8±0.2	17.5±0.7
L-206-2	16.0±0.7	19.4±1.2	15.7±0.8	18.0±1.1
L-207-1	17.3±0.7	19.4±0.6	16.4±1.4	16.5±0.9
L-207-2	15.5±0.5	19.3±1.4	15.6±0.8	17.8±0.5
L-208-1	15.5±0.5	19.7±0.8	17.5±2.5	18.4±0.7
L-208-2	15.8±0.8	19.4±1.1	15.4±0.9	17.2±1.1
L-209-1	15.9±0.9	20.1±0.9	15.2±1.1	18.5±0.4
L-209-2	15.6±1.4	20.4±1.2	18.8±0.4	18.2±0.5
L-210-1	16.2±0.3	20.7±0.9	16.8±0.7	17.8±0.4
L-210-2	14.9±0.4	22.0±1.6	16.6±1.3	20.4±1.1
L-211-1	16.7±1.7	19.6±0.6	14.5±1.7	17.7±1.0
L-211-2	16.3±1.1	19.9±0.8	16.1±0.6	19.5±0.6
L-212-1	14.7±0.7	19.3±0.9	16.1±0.6	19.0±0.6
L-212-2	15.0±0.7	18.8±0.4	15.1±0.5	18.3±1.0
L-213-1	15.0±0.6	18.8±0.4	16.3±0.5	18.0±1.1
L-213-2	15.3±0.5	19.2±0.6	16.0±0.4	18.7±1.4
L-214-1	15.8±0.9	21.1±1.4	17.2±0.8	20.2±0.8
L-214-2	16.3±0.7	19.7±0.9	15.9±1.2	19.1±0.9
L-215-1	15.9±0.9	20.1±0.8	17.0±1.4	18.9±0.8
L-215-2	16.7±0.7	20.2±1.4	16.6±0.9	19.4±0.9
L-216-1	14.6±1.0	19.6±0.4	14.9±0.6	19.4±1.4
L-216-2	14.8±1.0	19.0±1.0	16.4±0.4	17.5±0.8
Mean ± s.d.	15.6±0.7	19.6±0.8	16.1±0.9	18.2±0.9

Appendix II

Meteorological Data

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - EXTREMELY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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 - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - MODERATELY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	5	0	0	0	5
ENE	0	0	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	5	0	0	0	5

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 - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - SLIGHTLY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	1	1	0	0	2
NE	0	0	3	1	0	0	4
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	1	7	1	0	9
SW	0	0	0	4	0	0	4
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	6	13	1	0	20

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 - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - NEUTRAL (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	1	20	21	36	5	0	83
NNE	5	23	16	5	0	0	49
NE	6	25	57	5	0	0	93
ENE	1	22	28	12	0	0	63
E	1	15	14	14	2	0	46
ESE	1	9	9	1	1	0	21
SE	2	13	17	4	0	0	36
SSE	1	17	21	22	6	2	69
S	3	9	19	32	17	2	82
SSW	0	4	21	47	24	2	98
SW	1	9	14	19	12	1	56
WSW	2	13	16	15	5	1	52
W	0	18	14	12	6	0	50
WNW	1	13	21	17	11	2	65
NW	3	20	15	21	9	9	77
NNW	2	10	17	25	12	1	67
VARIABLE	0	0	0	0	0	0	0
TOTAL	30	240	320	287	110	20	1007

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 11

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - SLIGHTLY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	1	2	9	10	7	0	29
NNE	2	6	4	3	4	0	19
NE	2	6	6	11	0	0	25
ENE	2	5	26	18	1	0	52
E	1	2	15	24	6	0	48
ESE	0	2	11	12	2	0	27
SE	1	8	7	5	2	0	23
SSE	0	3	13	11	8	8	43
S	2	8	5	7	22	12	56
SSW	2	2	8	13	22	12	59
SW	0	3	13	10	17	13	56
WSW	1	4	5	8	14	5	37
W	0	3	10	8	8	2	31
WNW	0	4	9	5	7	1	26
NW	0	2	5	15	9	1	32
NNW	0	1	5	11	11	0	28
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	61	151	171	140	54	591

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 8

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - MODERATELY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	2	2	2	3	3	12
NNE	0	4	1	0	0	0	5
NE	2	6	2	0	0	0	10
ENE	1	11	4	3	0	0	19
E	0	1	9	4	4	0	18
ESE	1	2	4	6	8	0	21
SE	2	2	9	8	7	1	29
SSE	0	5	16	8	11	3	43
S	0	2	13	7	17	9	48
SSW	1	1	8	19	13	21	63
SW	0	3	15	11	6	17	52
WSW	0	4	8	7	4	1	24
W	0	4	8	10	8	0	30
WNW	0	3	3	4	7	1	18
NW	0	2	3	5	14	4	28
NNW	0	3	7	8	2	0	20
VARIABLE	0	0	0	0	0	0	0
TOTAL	7	55	112	102	104	60	440

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 - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - EXTREMELY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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	1	1	0	2
SSE	0	0	5	3	0	3	11
S	0	0	0	0	0	0	0
SSW	0	1	0	1	2	1	5
SW	0	0	0	2	9	2	13
WSW	0	0	0	2	2	0	4
W	0	0	0	1	1	0	2
WNW	0	0	1	0	1	0	2
NW	0	0	0	0	0	0	0
NNW	0	0	0	3	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	1	6	13	16	6	42

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 - 84

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - EXTREMELY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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 - 1

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - MODERATELY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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	5	1	0	6
SSW	0	0	2	0	7	1	10
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	2	5	8	1	16

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 - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - SLIGHTLY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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	1	0	0	0	1
SE	0	2	1	0	0	0	3
SSE	0	0	0	1	0	0	1
S	0	0	5	5	3	0	13
SSW	0	0	4	5	6	1	16
SW	0	0	1	0	1	2	4
WSW	0	0	0	0	1	0	1
W	0	0	0	0	1	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	1	0	1	2
NNW	0	0	0	0	2	0	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	2	12	12	14	4	44

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 - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - NEUTRAL (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	2	4	11	19	14	0	50
NNE	0	4	10	6	0	0	20
NE	0	2	7	22	13	1	45
ENE	2	1	7	19	9	1	39
E	0	7	11	20	2	5	45
ESE	0	8	15	11	5	0	39
SE	1	9	11	11	8	0	40
SSE	0	2	14	15	15	29	75
S	0	3	11	38	31	39	122
SSW	1	3	9	26	12	40	91
SW	0	4	8	26	27	26	91
WSW	3	3	7	26	32	23	94
W	1	5	13	32	23	46	120
WNW	1	4	10	26	15	21	77
NW	2	7	14	28	40	24	115
NNW	3	4	14	35	16	0	72
VARIABLE	0	0	0	0	0	0	0
TOTAL	16	70	172	360	262	255	1135

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 16

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - SLIGHTLY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	3	3	4	0	0	10
NNE	0	1	1	0	0	0	2
NE	0	0	5	6	0	0	11
ENE	0	1	1	6	4	0	12
E	0	3	3	2	6	1	15
ESE	0	4	3	2	7	1	17
SE	3	3	2	11	13	13	45
SSE	1	2	2	17	47	43	112
S	0	4	4	22	33	71	134
SSW	0	2	4	11	34	37	88
SW	1	3	3	18	19	10	54
WSW	1	2	2	24	15	4	48
W	0	0	2	8	20	3	33
WNW	0	1	4	14	12	2	33
NW	0	1	4	10	8	2	25
NNW	0	5	4	6	4	0	19
VARIABLE	0	0	0	0	0	0	0
TOTAL	6	35	47	161	222	187	658

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 17

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - MODERATELY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	5	4	9
E	1	1	3	1	0	2	8
ESE	0	0	6	3	3	0	12
SE	1	2	0	5	4	2	14
SSE	1	4	12	8	9	22	56
S	1	5	3	3	8	23	43
SSW	0	2	1	3	4	21	31
SW	1	1	1	3	7	1	14
WSW	0	1	1	2	2	5	11
W	0	0	0	2	1	7	10
WNW	0	0	1	0	7	2	10
NW	0	1	0	1	2	0	4
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	5	18	28	31	52	89	223

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 9

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1982
STABILITY CLASS - EXTREMELY STABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	1	3	0	4
SE	0	0	1	8	2	0	11
SSE	0	3	2	5	13	3	26
S	0	4	2	3	6	7	22
SSW	0	0	0	0	3	4	7
SW	0	0	0	2	3	0	5
WSW	1	0	0	0	3	0	4
W	0	0	0	0	3	0	3
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	1	7	5	19	37	14	83

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 4

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 2

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1982
STABILITY CLASS - EXTREMELY UNSTABLE (DELTA T 375-33 FT)
WINDS MEASURED AT 375 FEET

WIND DIRECTION	WIND SPEED (IN MPH) .7-3	4- 7	8-12	13-18	19-24	GT 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 - 84

Appendix III

Errata

ERRATA TO SEMI-ANNUAL RADIOACTIVE EFFLUENT REPORT

July - December, 1982

(ref. Table 1.2-7 pg. 17)

II. Liquid Effluents	6 mo. Total
1. b. Avg. Conc. Released	3.05E-06 Should read: 4.0E-09