LA SALLE COUNTY STATION

RADIOACTIVE WASTE AND ENVIRONMENTAL MONITORING

ANNUAL REPORT 1984

TELEDYNE ISOTOPES MIDWEST LABORATORY

Northbrook, Illinois

MARCH 1985

LA SALLE COUNTY NUCLEAR POWER STATION

RADIOACTIVE WASTE AND ENVIRONMENTAL MONITORING

ANNUAL REPORT 1984

TELEDYNE ISOTOPES MIDWEST LABORATORY

Northbrook, Illinois

MARCH 1985

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

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 March 1982. Unit No. 2 loaded fuel in late December 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 6.19E-03 mrem for the year, when a shielding and occupancy factor of 0.7 is assumed. The assessment of radiation doses are performed in accordance with the Offsite Dose Calculation Manual (ODCM). The results of analysis confirm that the station is operating in compliance with 10CFR50 and 40CFR190.

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 5.66E+02 curies of fission and activation gases was released with a maximum release rate of 7.60+02 µCi/sec.

A total of 3.54E-03 curies of I-131 was released during the year, with an average release rate of 2.93E-03 µCi/sec for all iodines.

A total of 2.92 curies of beta-gamma emitters and less than 2.48E-11 curies of alpha emitters was released as airborne particulate atter, with an average release rate of 9.20E-02 µCi/sec.

A total of 6.18 curies of tritium was released, with an average release rate of 1.95E-01 µCi/sec.

1.2 Liquids Released to the Illinois River

A total of 3.56E+06 liters of radioactive liquid waste (prior to dilution) containing 8.48E-02 curies (excluding tritium, gases, and alpha) were discharged after dilution with a total of 7.47E+09 liters of water. These wastes were released at a monthly average concentration of 1.56E-08 µCi/ml, discharged on an unidentified nuclide basis, which is 0.42% of the Technical Specification release limits for unidentified radioactivity. A total of 5.72E-07 curies of alpha radioactivity and 1.10 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

Solid radioactive wastes were shipped to Richland, Washington; Beatty, Nevada; and Barnwell Nuclear Center, South Carolina. The record of waste shipments is summarized in Table 2.0-1.

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 6.19E-03 mrem for the year, with an occupancy or shielding factor of 0.7 included. The maximum gamma air dose was 1.09E-02 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 9.14E-03 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 1.23E-03 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 2.87E-04 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 1.09E-02 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 6.11E-03 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 1.25E-02 mrem and no organ dose exceeded 3.23E-01 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 99.0%.

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.

---

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

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.

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 0.010 to 0.053 pCi/m^3 at indicator locations and 0.010 to 0.056 pCi/m^3 at control locations with an average concentration of 0.025 both at 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 29.1 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 1.1 to 5.5 pCi/g wet weight and averaged 2.5 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 21.4 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 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 close to (240 pCi/l in one sample) or 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 control and two indicator locations, and analyzed for gross beta and gamma-emitters. Gamma emitters were below the detection limits. Mean gross beta activity in indicator samples measured 22.8 pCi/g and 28.9 pCi/g at control location 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 3.1 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 in all samples. 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 report for the period January - December 1983. 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 August 4, 1984.

There are no dairy farms within a five mile radius of the LaSalle County Power Station. Dairies that are sampled are listed below.

The Punky Farm (Johnson) is back in operation and is located 7 miles east of the LaSalle Station. The new owner and operator is Granby.

L-15 Johnson Dairy Farm, located 7.0 mi E of station

Number of cows -- 100
Number of fresh cows -- 80

Diet consists of the following:

Ground corn mix	15 lbs./cow/day
Hay	30 lbs./cow/day (approx.)
Pasture	25 lbs./cow/day (approx.)

* Mix consists of:

Ground ear corn	2,000 lbs.
Soybean meal	200 lbs.
Minerals	50 lbs.
Salt	25 lbs.

L-16 Lowrey Dairy Farm, located 7.2 mi @ 120°

Number of cows -- 120
Number of fresh cows -- 87

Diet consists of the following:

Ground Corn Mix*	20 lbs./cow/day
Haylage	25 lbs./cow/day (approx.)
Silage	25 lbs./cow/day (approx.)
Hay	Free choice

* Mix consists of:

Shelled corn	2,500 lbs.
Soybean meal	600 lbs.
Oats	600 lbs.
Minerals	50 lbs.
Pre-mix	200 lbs.
Salt	25 lbs.

L-17 Norsen Dairy Farm, located 9.0 mi @ 337°

Number of cows -- 28
Number of fresh cows -- 25

Diet consists of the following:

Ground Corn Mix*	14 lbs./cow/day
Hay	20 lbs./cow/day
Pasture	50 lbs./cow/day

* Mix consists of:

Corn	1,600 lbs.
Oats	400 lbs.
Protein	100 lbs.
Minerals	50 lbs.
Salt	20 lbs.

L-18 Boldt Dairy Farm (Sunnyisle), located 13.2 mi @ 15°

Number of cows -- 60
Number of fresh cows -- 51

Diet consists of the following:

Ground Corn Mix*	14 lbs./cow/day
Hay	30 lbs./cow/day
Pasture	30 lbs./cow/day

* Mix consists of:

Ground ear corn	2,000 lbs.
Soybean meal	600 lbs.
Oats	50 lbs.
Minerals	20 lbs.
Salt	400 lbs.

8.0 NEAREST RESIDENT CENSUS

The census was conducted by A. Lewis on August 4, 1984. There were no changes from the previous census.

Nearest resident of the LaSalle Station within a five (5) mile radius.

Direction	Distance
N	2.2 miles
NNE	1.4 miles
NE	1.8 miles
ENE	3.4 miles
E	3.1 miles
ESE	1.6 miles
SE	1.5 miles
SSE	1.1 miles
S	2.2 miles
SSW	2.0 miles
SW	0.7 miles
WSW	1.3 miles
W	0.9 miles
WNW	1.0 miles
NW	2.6 miles

9.0 INTERLABORATORY COMPARISON PROGRAM RESULTS

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

Participant laboratories measure the concentrations 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 A-1 were obtained through participation in the environmental sample crosscheck program for milk, water, air filters, and food samples during the period 1980 through 1984. This program has been conducted by the U. S. Environmental Protection Agency Intercomparison and Calibration Section, Quality Assurance Branch, Environmental Monitoring and Support Laboratory, Las Vegas, Nevada.

The results in Table A-2 were obtained for thermoluminescent dosimeters (TLD's) during the period 1976, 1977, 1979, 1980, and 1981 through participation in the Second, Third, Fourth, and Fifth International Intercomparison of Environmental Dosimeters under the sponsorships listed in Table A-2.

Table A-1. U.S. Environmental Protection Agency's crosscheck program, comparison of EPA and Teledyne Isotopes Midwest Laboratory results for milk, water, air filters, and food samples, 1980 through 1984[a].

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STW-206	Water	Jan. 1980	Gross Alpha	19.0±2.0	30.0±8.0
			Gross Beta	48.0±2.0	45.0±5.0
STW-208	Water	Jan. 1980	Sr-89	6.1±1.2	10.0±0.5
			Sr-90	23.9±1.1	25.5±1.5
STW-209	Water	Feb. 1980	Cr-51	112±14	101±5.0
			Co-60	12.7±2.3	11±5.0
			Zn-65	29.7±2.3	25±5.0
			Ru-106	71.7±1.5	51±5
			Cs-134	12.0±2.0	10±5.0
			Cs-137	30.0±2.7	30±5.0
STW-210	Water	Feb. 1980	H-3	1800±120	1750±340
STW-211	Water	March 1980	Ra-226	15.7±0.2	16.0±2.4
			Ra-228	3.5±0.3	2.6±0.4
STM-217	Milk	May 1980	Sr-89	4.4±2.6[g]	5±5
			Sr-90	10.0±1.0	12±1.5
STW-221	Water	June 1980	Ra-226	2.0±0.0	1.7±0.8
			Ra-228	1.6±0.1	1.7±0.8
STW-223	Water	July 1980	Gross Alpha	31±3.0	38±5.0
			Gross Beta	44±4	35±5.0
STW-224	Water	July 1980	Cs-137	33.9±0.4	35±5.0
			Ba-140	<12	0
			K-40	1350±60	1550±78
			I-131	<5.0	0
STW-225	Water	Aug. 1980	H-3	1280±50	1210±329
STW-226	Water	Sept. 1980	Sr-89	22±1.2	24±8.6
			Sr-90	12±0.6	15±2.6
STW-228	Water	Sept. 1980	Gross Alpha	NA[e]	32.0±8.0
			Gross Beta	22.5±0.0	21.0±5.0
STW-235	Water	Dec. 1980	H-3	2420±30	2240±604

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STW-237	Water	Jan. 1981	Sr-89	13.0±1.0	16±8.7
			Sr-90	24.0±0.6	34±2.9
STM-239	Milk	Jan. 1981	Sr-89	<210	0
			Sr-90	15.7±2.6	20±3.0
			I-131	30.9±4.8	26±10.0
			Cs-137	46.9±2.9	43±9.0
			Ba-140	<21	0
			K-40	1330±53	1550±134
STW-240	Water	Jan. 1981	Gross alpha	7.3±2.0	9±5.0
			Gross beta	41.0±3.1	44±5.0
STW-243	Water	Mar. 1981	Ra-226	3.5±0.06	3.4±0.5
			Ra-228	6.5±2.3	7.3±1.1
STW-245	Water	Apr. 1981	H-3	3210±115	2710±355
STW-249	Water	May 1981	Sr-89	51±3.6	36±8.7
			Sr-90	22.7±0.6	22±2.6
STW-251	Water	May 1981	Gross alpha	24.0±5.3	21±5.2
			Gross beta	16.1±1.9	14±5.0
STW-252	Water	Jun. 1981	H-3	2140±95	1950±596
STW-255	Water	Jul. 1981	Gross alpha	20±1.5	22±9.5
			Gross beta	13.0±2.0	15±8.7
STW-259	Water	Sep. 1981	Sr-89	16.1±1.0	23±5
			Sr-90	10.3±0.9	11±1.5
STW-265	Water	Oct. 1981	Gross alpha	71.2±19.1	80±20
			Gross beta	123.3±16.6	111±5.6
			Sr-89	14.9±2.0	21±5
			Sr-90	13.1±1.7	14.4±1.5
			Ra-226	13.0±2.0	12.7±1.9
STW-269	Water	Dec. 1981	H-3	2516±181	2700±355

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STW-270	Water	Jan. 1982	Sr-89	24.3±2.0	21.0±5.0
			Sr-90	9.4±0.5	12.0±1.5
STW-273	Water	Jan. 1982	I-131	8.6±0.6	8.4±1.5
STW-275	Water	Feb. 1982	H-3	1580±147	1820±342
STW-276	Water	Feb. 1982	Cr-51	<61	0
			Co-60	26.0±3.7	20±5
			Zn-65	<13	15±5
			Ru-106	<46	20±5
			Cs-134	26.8±0.7	22±5
			Cs-137	29.7±1.4	23±5
STW-277	Water	Mar. 1982	Ra-226	11.9±1.9	11.6±1.7
STW-278	Water	Mar. 1982	Gross alpha	15.6±1.9	19±5
			Gross beta	19.2±0.4	19±5
STW-280	Water	Apr. 1982	H-3	2690±80	2860±360
STW-281	Water	Apr. 1982	Gross alpha	75±7.9	85±21
			Gross beta	114.1±5.9	106±5.3
			Sr-89	17.4±1.8	24±5
			Sr-90	10.5±0.6	12±1.5
			Ra-226	11.4±2.0	10.9±1.5
			Co-60	<4.6	0
STW-284	Water	May 1982	Gross alpha	31.5±6.5	27.5±7
			Gross beta	25.9±3.4	29±5
STW-285	Water	June 1982	H-3	1970±1408	1830±340
STW-286	Water	June 1982	Ra-226	12.6±1.5	13.4±3.5
			Ra-228	11.1±2.5	8.7±2.3
STW-287	Water	June 1982	I-131	6.5±0.3	4.4±0.7
STW-290	Water	Aug. 1982	H-3	3210±140	2890±619
STW-291	Water	Aug. 1982	I-131	94.6±2.5	87±15

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STW-292	Water	Sept 1982	Sr-89	22.7±3.8	24.5±8.7
			Sr-90	10.9±0.3	14.5±2.6
STW-296	Water	Oct. 1982	Co-60	20.0±1.0	20±8.7
			Zn-65	32.3±5.1	24±8.7
			Cs-134	15.3±1.5	19.0±8.7
			Cs-137	21.0±1.7	20.0±8.7
STW-297	Water	Oct. 1982	H-3	2470±20	2560±612
STW-298	Water	Oct. 1982	Gross alpha	32±30	55±24
			Gross beta	81.7±6.1	81±8.7
			Sr-89	<2	0
			Sr-90	14.1±0.9	17.2±2.6
			Cs-134	<2	1.8±8.7
			Cs-137	22.7±0.6	20±8.7
			Ra-226	13.6±0.3	12.5±3.2
			Ra-228	3.9±1.0	3.6±0.9
STW-301	Water	Nov. 1982	Gross alpha	12.0±1.0	19.0±8.7
			Gross beta	34.0±2.7	24.0±8.7
STW-302	Water	Dec. 1982	I-131	40.0±0.0	37.0±10
STW-303	Water	Dec. 1982	H-3	1940±20	1990±345
STW-304	Water	Dec. 1982	Ra-226	11.7±0.6	11.0±1.7
			Ra-228	<3	0
STW-306	Water	Jan. 1983	Sr-89	20.0±8.7	29.2±5
			Sr-90	21.7±8.4	17.2±1.5
STW-307	Water	Jan. 1983	Gross alpha	29.0±4.09	29.0±13
			Gross beta	29.3±0.6	31.0±8.7
STM-309	Milk	Feb. 1983	Sr-89	35±2.0	37±8.7
			Sr-90	13.7±0.6	18±2.6
			I-131	55.7±3.2	55±10.4
			Cs-137	29±1.0	26±8.7
			Ba-140	<27	0
			K-40	1637±5.8	1512±131

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STW-310	Water	Feb. 1983	H-3	2470±80	2560±612
STW-311	Water	March 1983	Ra-226	11.9±1.3	12.7±3.3
			Ra-228	<2.7	0
STW-312	Water	March 1983	Gross alpha	31.6±4.5[g]	31±13.4
			Gross beta	27.0±2.0	28±8.7
STW-313	Water	April 1983	H-3	3240±80	3330±627
STW-316	Water	May 1983	Gross alpha	94±7	64±19.9
			Gross beta	133±5	149±12.4
			Sr-89	19±1	24±8.7
			Sr-90	12±1	13±2.6
			Ra-226	7.9±0.4	8.5±2.25
			Co-60	30±2	30±8.7
			Cs-134	27±2	33±8.7
			Cs-137	29±1	27±8.7
STW-317	Water	May 1983	Sr-89	59.7±2.1	57±8.7
			Sr-90	33.7±1.5	38±3.3
STW-318[f]	Water	May 1983	Gross alpha	12.8±1.5	11±8.7
			Gross beta	49.4±3.9	57±8.7
STM-320	Milk	June 1983	Sr-89	20±0	25±8.7
			Sr-90	10±1	16±2.6
			I-131	30±1	30±10.4
			Cs-137	52±2	47±8.7
			K	1553±57	1486±129
STW-321	Water	June 1983	H-3	1470±89	1529±583
STW-322	Water	June 1983	Ra-226	4.3±0.2	4.8±1.24
			Ra-228	<2.5	0
STW-323	Water	July 1983	Gross alpha	3±1	7±8.7
			Gross beta	21±0	22±8.7
STW-324	Water	August 1983	I-131	13.3±0.6	14±10.4

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	Concentration in pCi/l[b] EPA Result ±3σ, n=1[d]
STAF-326	Air Filter	August 1983	Gross beta	42±2	36±8.7
			Sr-90	14±2	10±2.6
			Cs-137	19±1	15±8.7
STW-328	Water	Sept. 1983	Gross alpha	2.3±0.6	5±8.7
			Gross beta	10.7±1.2	9±8.7
STW-329	Water	Sept. 1983	Ra-226	3.0±0.2	3.1±0.81
			Ra-228	3.2±0.7	2.0±0.52
STW-331	Water	Oct. 1983	H-3	1300±30	1210±570
STW-335	Water	Dec. 1983	I-131	19.6±1.9	20±10.4
STW-336	Water	Dec. 1983	H-3	2870±100	2389±608
STAF-337	Air Filter	Nov. 1983	Gross alpha	18.0±0.2	19±8.7
			Gross beta	58.6±1.2	50±8.7
			Sr-90	10.9±0.1	15±2.6
			Cs-137	30.1±2.5	20±8.7
STW-339	Water	Jan. 1984	Sr-89	47.2±1.9	36±8.7
			Sr-90	22.5±4.0	24±2.6
STW-343	Water	Feb. 1984	H-3	2487±76	2383±607
STM-347	Milk	March 1984	I-131	5.3±1.1	6±1.6
STW-349	Water	March 1984	Ra-226	4.0±0.2	4.1±1.06
			Ra-228	3.6±0.3	2.0±0.52
STW-350	Water	March 1984	Gross alpha	3.8±1.1	5±8.7
			Gross beta	24.2±2.0	20±8.7
STW-354	Water	April 1984	H-3	3560±50	3508±630
STW-355	Water	April 1984	Gross alpha	21.0±4.1	35±15.2
			Gross beta	127.8±4.1	147±12.7
			Sr-89	29.3±2.0	23±8.7
			Sr-90	16.6±0.7	26±2.6
			Ra-226	4.0±1.0	4.0±1.04
			Co-60	32.3±1.4	30±8.7
			Cs-134	33.6±3.1	30±8.7
			Cs-137	33.3±2.2	26±8.7

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2 [c]	EPA Result ±3 , n=1[d]
STW-358	Water	May 1984	Gross alpha	3.0±0.6	3±8.7
			Gross beta	6.7±1.2	6±8.7
STM-366	Milk	June 1984	Sr-89	21±3.1	25±8.7
			Sr-90	13±2.0	17±2.6
			I-131	46±5.3	43±10.4
			Cs-137	38±4.0	35±8.7
			K-40	1577±172	1496±130
STW-368	Water	July 1984	Gross alpha	5.1±1.1	6±8.7
			Gross beta	11.9±2.4	13±8.7
STW-369	Water	August 1984	I-131	34.3±5.0	34.0±10.4
STW-370	Water	August 1984	H-3	3003±253	2817±617
STF-371	Food	July 1984	Sr-89	22.0±5.3	25.0±8.7
			Sr-90	14.7±3.1	20.0±2.6
			I-131	<172	39.0±10.4
			Cs-137	24.0±5.3	25.0±8.7
			K-40	2503±132	2605±226.0
STAF-372	Air Filter	August 1984	Gross alpha	15.3±1.2	17±8.7
			Gross beta	56.0±0.0	51±8.7
			Sr-90	14.3±1.2	18±2.4
			Cs-137	21.0±2.0	15±8.7
STW-375	Water	Sept. 1984	Ra-226	5.1±0.4	4.9±1.27
			Ra-228	2.2±0.1	2.3±0.60
STW-377	Water	Sept. 1984	Gross alpha	3.3±1.2	5.0±8.7
			Gross beta	12.7±2.3	16.0±8.7
STW-379	Water	Oct. 1984	H-3	2860±312	2810±356
STW-380	Water	Oct. 1984	Cr-51	<36	40±8.7
			Co-60	20.3±1.2	20±8.7
			Zn-65	150±8.1	147±8.7
			Ru-106	<30	47±8.7
			Cs-134	31.3±7.0	31±8.7
			Cs-137	26.7±1.2	24±8.7

Table A-1. (continued)

Lab Code	Sample Type	Date Collected	Analysis	Concentration in pCi/l[b] TIML Result ±2σ[c]	EPA Result ±3σ, n=1[d]
STM-382	Milk	Oct. 1984	Sr-89	15.7±4.2	22±8.7
			Sr-90	12.7±1.2	16±2.6
			I-131	41.7±3.1	42±10.4
			Cs-137	31.3±6.1	32±8.7
			K-40	1447±66	1517±131
STW-384	Water (Blind)	Oct. 1984 Sample A	Gross alpha	9.7±1.2	14±8.7
			Ra-226	3.3±0.2	3.0±0.8
			Ra-228	3.4±1.6	2.1±0.5
			Uranium	NA[e]	5±10.4
		Sample B	Gross beta	48.3±5.0	64±8.7
			Sr-89	10.7±4.6	11±8.7
			Sr-90	7.3±1.2	12±2.6
			Co-60	16.3±1.2	14±8.7
			Cs-134	<2	2±8.7
			Cs-137	16.7±1.2	14±8.7
STW-389	Water	Dec. 1984	H-3	3583±110	3182±624

[a] Results obtained by Teledyne Isotopes Midwest Laboratory as a participant in the environmental sample crosscheck program operated by the Intercomparison and Calibration Section, Quality Assurance Branch, Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, (EPA), Las Vegas, Nevada.

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

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

[d] USEPA results are presented as the known values ± control limits of 3σ for n=3.

[e] NA = Not analyzed.

[f] Analyzed but not reported to the EPA.

[g] Results after calculations corrected (error in calculations when reported to EPA).

Table A-2. Crosscheck program results, thermoluminescent dosimeters (TLDs).

Lab Code	TLD Type	Measurement	mR: Teledyne Result ±2σ [a]	mR: Known Value	mR: Average ±2σ [d] (all participants)
2nd International Intercomparison[b]					
115-2[b]	CaF_2:Mn Bulb	Gamma-Field	17.0±1.9	17.1[c]	16.4±7.7
		Gamma-Lab	20.8±4.1	21.3[c]	18.8±7.6
3rd International Intercomparison[e]					
115-3[e]	CaF_2:Mn Bulb	Gamma-Field	30.7±3.2	34.9±4.8[f]	31.5±3.0
		Gamma-Lab	89.6±6.4	91.7±14.6[f]	86.2±24.0
4th International Intercomparison[g]					
115-4[g]	CaF_2:Mn Bulb	Gamma-Field	14.1±1.1	14.1±1.4[f]	16.09.0
		Gamma-Lab (Low)	9.3±1.3	12.2±2.4[f]	12.0±7.6
		Gamma-Lab (High)	40.4±1.4	45.8±9.2[f]	43.9±13.2
5th International Intercomparison[h]					
115-5A[h]	CaF_2:Mn Bulb	Gamma-Field	31.4±1.8	30.0±6.0[i]	30.2±14.6
		Gamma-Lab at beginning	77.4±5.8	75.2±7.6[i]	75.8±40.4
		Gamma-Lab at the end	96.6±5.8	88.4±8.8[i]	90.7±31.2

Table A-2. (Continued)

Lab Code	TLD Type	Measurement	mR		
			Teledyne Result ±2σ[a]	Known Value	Average ± 2σ [d] (all participants)
115-58[h]	LiF-100 Chips	Gamma-Field	30.3±4.8	30.0±6[i]	30.2±14.6
		Gamma-Lab at beginning	81.1±7.4	75.2±7.6[i]	75.8±40.4
		Gamma-Lab at the end	85.4±11.7	88.4±8.8[i]	90.7±131.2

[a] Lab result given is the mean ±2σ standard deviations of three determinations.
[b] Second International Intercomparison of Environmental Dosimeters conducted in April of 1976 by the Health and Safety Laboratory (GASL), New York, New York, and the School of Public Health of the University of Texas, Houston, Texas.
[c] Value determined by sponsor of the intercomparison using continuously operated pressurized ion chamber.
[d] Mean ±2 standard deviations of results obtained by all laboratories participating in the program.
[e] Third International Intercomparison of Environmental Dosimeters conducted in summer of 1977 by Oak Ridge National Laboratory and the School of Public Health of the University of Texas, Houston, Texas.
[f] Value ±2 standard deviations as determined by sponsor of the intercomparison using continuously operated pressurized ion chamber.
[g] Fourth International Intercomparison of Environmental Dosimeters conducted in summer of 1979 by the School of Public Health of the University of Texas, Houston, Texas.
[h] Fifth International Intercomparison of Environmental Dosimeter conducted in fall of 1980 at Idaho Falls, Idaho and sponsored by the School of Public Health of the University of Texas, Houston, Texas and Environmental Measurements Laboratory, New York, New York, U.S. Department of Energy.
[i] Value determined by sponsor of the intercomparison using continuously operated pressurized ion chamber.

APPENDIX I

DATA TABLES AND FIGURES

Table 1.1-1

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983
4

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

I. Gaseous Effluents	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF
1. Gross Radioactivity Releases									
a) Noble Gas Release Main Stack	Curies	5.18E0	6.40E-1	1.22E1	4.07E1	3.96E1	1.25E1	1.11E2	6.6.A.4.b.
b. Maximum Release Rate									3.11.2.1
(grab sample)	uCi/sec	1.3E1	5.6E0	1.8E1	1.2E2	8.6E1	4.74E1	1.2E2	
c. Isotopes Released									3.11.2.2
Kr-85m	Curies	<2.0E-8+	<2.0E-8+	<2.0E-8+	<2.0E-9+	5.50E-1	1.58E-1	7.08E-1	
Kr-87	Curies	<2.7E-8+	<2.7E-8+	<2.7E-8+	<2.7E-8+	8.82E-1	<2.7E-8+	8.82E-1	
Kr-88	Curies	<6.1E-8+	<6.1E-8+	<6.1E-8+	2.83E1	1.69E0	<6.1E-8+	3.00E1	
Xe-133	Curies	<2.3E-7+	<2.3E-7+	<2.3E-7+	7.55E0	1.46E1	3.76E0	2.59E1	
Xe-135	Curies	<1.9E-8+	4.75E-1	<1.9E-8+	3.30E0	3.62E0	5.46E-1	7.94E0	
Xe-135m	Curies	<2.8E-8+	<2.8E-8+	<2.8E-8+	<2.8E-8+	<2.8E-8+	<2.8E-8+	2.8E-8+	
Xe-138	Curies	<4.6E-8+	<4.6E-8+	<4.6E-8+	<4.6E-8+	3.75E0	1.15E0	4.90E0	
Ar-41	Curies	5.18E0	1.65E-1	1.22E1	1.58E0	1.45E1	6.92E0	4.05E1	
d. Percent of Stack Limit	%	2.2E-3	1.04E-4	5.16E-3	2.28E-2	9.34E-3	3.38E-3	4.30E-2	
e. Average Release Rate	uCi/sec	1.93E0	2.55E-1	4.55E0	1.57E1	1.48E1	4.82E0	7.06E0	3.11.2.1.a
2. Main Stack Iodine Release									
a. I-134	Curies	----	----	----	------	9.11E-5	3.11E-4	4.02E-4	6.6.A.4.b
I-132	Curies	-----	-----	-----	5.75E-4	2.89E-4	4.49E-4	1.31E-3	3.11.2.3
I-131	Curies	3.53E-5	1.13E-4	2.66E-5	1.32E-4	1.64E-4	4.69E-4	9.40E-4	
I-133	Curies	3.42E-4	7.34E-4	3.74E-4	2.73E-3	3.18E-3	3.60E-3	1.10E-2	
I-135	Curies	<6.01E-12+	4.9E-4	1.72E-4	1.91E-3	1.76E-3	2.03E-3	6.36E-3	
b. Percent of Stack Limit		1.27E-5	3.45E-5	1.35E-5	2.89E-3	3.54E-3	9.07E-3	1.89E-2	
c. Average Release Rate	uCi/sec	1.41E-4	5.34E-4	2.14E-4	2.06E-3	2.05E-3	2.65E-3	1.27E-3	3.11.2.1.b.

+ Activity of each grab sample is less than LLD given (uCi/cc).

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 1
October 22, 1984

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374

YEAR: 1984

I. Gaseous Effluents	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
1. Gross Radioactivity Release a) Noble Gas Release Main Stack	Curies	5.25E1	1.71E2	1.24E1	8.58E1	1.26E2	6.86E0	4.55E2	6.6.A.4.b.
b. Maximum Release Rate									3.11.2.1
(grab sample)	uCi/sec	1.11E2	7.60E2	1.62E2	3.55E2	2.95E2	1.17E1	7.60E2	
c. Isotopes Released									3.11.2.2
Kr-85m	Curies	1.46E0	3.99E-1	<2.0E-8+	<2.0E-8+	<2.0E-8+	<2.0E-8+	1.86E0	
Kr-87	Curies	5.65E-1	<2.7E-8+	1.12E0	1.89E0	<2.7E-8+	<2.7E-8+	3.58E0	
Kr-88	Curies	<6.1E-8+	<6.1E-8+	<6.1E-8+	<6.1E-8+	<6.1E-8+	<6.1E-8+	<6.1E-8+	
Xe-133	Curies	3.20E1	1.64E2	5.57E0	8.25E1	1.23E2	6.86E0	4.14E2	
Xe-135	Curies	5.78E0	1.39E0	1.15E-1	1.05E0	2.22E0	<1.2E-9+	1.06E1	
Xe-135m	Curies	<2.8E-8+	<2.8E-8+	3.15E-1	<2.8E-8+	<2.8E-8+	<2.8E-8+	3.15E-1	
Xe-138	Curies	<4.6E-8+	<4.6E-8+	<4.6E-8+	<4.6E-8+	<4.6E-8+	<4.6E-8+	<4.6E-8+	
Ar-41	Curies	1.27E1	5.62E0	5.26E0	3.74E-1	5.34E-1	2.14E-3	2.45E1	
d. Percent of Stack Limit	%	6.22E-3	3.91E-3	2.64E-3	1.92E-3	1.59E-3	6.77E-5	1.55E-2	
e. Average Release Rate	uCi/sec	1.96E1	6.40E1	4.78E0	3.20E1	4.86E1	2.56E0	2.86E1	3.11.2.1.a
2. Main Stk Iodine Release									
a. I-134	Curies	1.57E-3	2.42E-3	2.25E-3	<6.37E-9+	2.85E-4	<6.37E-9+	6.53E-3	6.6.A.4.b.
I-132	Curies	2.40E-3	4.78E-3	3.89E-3	<1.74E-11+	<1.74E-11+	1.47E-4	1.12E-2	3.11.2.3.
I-131	Curies	4.34E-4	1.03E-3	7.20E-4	2.06E-4	<2.0E-12+	2.11E-4	2.60E-3	
I-133	Curies	7.22E-3	8.70E-3	6.91E-3	1.00E-3	1.98E-4	2.67E-3	2.67E-2	
I-135	Curies	6.74E-3	1.06E-2	7.65E-3	1.38E-4	<6.01E-12+	1.32E-3	2.64E-2	
b. Percent of Stack Limit	%	9.13E-3	2.01E-2	1.17E-2	5.03E-5	5.01E-6	9.93E-5	1.13E-3	
c. Average Release Rate	uCi/sec	6.86E-3	1.03E-2	8.26E-3	5.02E-4	1.86E-4	1.62E-3	4.62E-3	3.11.2.1.b.

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS
ATTACHMENT A

LRP 1110-13
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 YEAR: 6 1984

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	5.69E-1	3.96E-1	6.90E2	2.41E1	1.33E0	4.37E0	7.21E2	6.6.A.4.b.
b. Gross Alpha Radioactivity	mCi	1.68E-8	3.1E-9	<1.2E-13+	<1.6E-13+	<1.1E-8+	<3.6E-9+	1.99E-8	3.11.2.3
c. Isotopes Released									3.11.2.3.
Cr-51	mCi	---	---	----	----	2.53E-1	----	2.53E-1	
Mn-54	mCi	3.03E-1	1.62E-1	3.11E-1	3.2E-1	1.53E-1	2.91E-1	1.54E0	
Co-58	mCi	8.61E-3	<4.7E-13+	1.21E-2	<4.7E-13+	2.79E-2	<4.7E-13+	4.86E-2	
Fe-59	mCi	6.97E-3	2.63E-2	<4.9E-13+	<4.9E-13+	<4.9E-13+	<4.9E-13+	3.33E-2	
Co-60	mCi	1.93E-1	7.92E-2	1.25E-1	3.76E-1	1.63E-1	1.48E-1	1.08E0	
Zn-65	mCi	1.58E-9	<7.9E-13+	<7.9E-13+	2.58E-2	<7.9E-13+	<7.9E-13+	2.58E-2	
Sr-89	mCi	<5.8E-9+	<5.1E-9+	6.81E-8	<1.1E-13+	5.75E-8	<9.2E-9+	1.26E-7	
Sr-90	mCi	4.6E-9	<2.9E-9+	8.4E-9	<5.4E-14+	2.49E-8	<5.2E-9+	3.79E-8	
Sr-92	mCi	---	----	----	----	-----	1.79E-1	1.79E-1	
F-18	mCi	---	----	---*	2.17E1	-----	----	2.17E1	
Br-82	mCi	---	----	4.79E-2	----	-----	----	4.79E-2	
Ag-110m	mCi	---	----	2.16E-2	----	-----	----	2.16E-2	
Mo-99	mCi	5.72E-2	1.28E-1	<4.6E-12+	<4.6E-12+	<4.6E-12+	<4.6E-12+	1.85E-1	
Cs-138	mCi	---	---	6.89E2	1.71E0	-----	2.67E0	6.93E2	
Cs-134	mCi	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	
Ba-139	mCi	---	----	----	----	7.32E-1	7.60E-1	1.49E0	
Cs-137	mCi	<5.8E13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	
Ba-140/La-140	mCi	---	----	6.13E-2	----	-----	----	6.13E-2	
Ce-141	mCi	<5.6E13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	
Ce-144	mCi	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	

* Data to be presented in an errata to this report.

\+ Activity of each sample is less than LLD given (uCi/cc).

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110- 3
Revision 1
October 22, 1984
7

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

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	2.87E1	1.45E1	1.80E0	4.97E-1	1.06E1	2.14E3	2.20E3	6.6.A.4.b
b. Gross Alpha Radioactivity	mCi	<3.0E-9+	4.9E-9	*	*	*	*	4.9E-9	3.11.2.3
c. Isotopes Released									3.11.2.3
Cr-51	mCi	1.39E-1	- - -	- - -	8.64E-2	- - -	- - -	2.25E-1	
Mn-54	mCi	3.28E-1	3.02E-1	4.07E-1	1.58E-1	3.45E-1	3.30E-1	1.87E0	
Co-58	mCi	2.07E-2	<4.7E-13+	1.90E-2	<4.7E-13+	<4.7E-13+	1.46E-2	5.43E-2	
Fe-59	mCi	<4.9E-13+	<4.9E-13+	<4.9E-13+	<4.9E-13+	<4.9E-13+	8.78E-5	8.78E-5	
Co-60	mCi	1.72E-1	4.05E-1	2.35E-1	2.02E-1	3.36E-1	3.00E-1	1.65E0	
Zn-65	mCi	1.38E-2	<7.9E-13+	<7.9E-13+	<7.9E-13+	<7.9E-13+	<7.9E-13+	1.38E-2	
Sr-89	mCi	<6.3E-9+	1.76E-8	*	*	*	*	1.76E-8	
Sr-90	mCi	<3.4E-9+	<3.9E-9+	*	*	*	*	<LLD	
Rb-89	mCi	8.64E0	- - -	- - -	- - -	- - -	- - -	8.64E0	
Na-24	mCi	1.54E-1	3.37E-2	1.00E-1	5.04E-2	- - -	4.23E-2	3.80E-1	
Tc-99m	mCi	5.53E-2	- - -	- - -	- - -	- - -	- - -	5.53E-2	
Sr-91	mCi	---	1.34E-1	- - -	- - -	- - -	- - -	1.34E-1	
Ba-139	mCi	4.92E0	3.57E0	1.04E0	- - -	5.39E-1	- - -	1.01E1	
Cs-138	mCi	1.43E1	1.45E1	- - -	- - -	9.09E0	7.17E0	4.51E1	
Cs-134	mCi	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	<3.4E-13+	
Ba-135	mCi	---	- - -	- - -	- - -	2.97E-1	8.06E1	8.09E1	
Cs-137	mCi	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	<5.8E-13+	
Ba-140/La-140	mCi	---	- - -	- - -	- - -	- - -	9.87E-4	9.87E-4	
Ce-141	mCi	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	<5.6E-13+	
Ce-144	mCi	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	<2.4E-12+	

* Data to be presented in an errata to this report.

--- + Activity of each sample is less than LLD given (uCi/cc)

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS
ATTACHMENT A

LRP 1110-13
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 YEAR: 6 1984

I. 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								6.6.A.4.b.
b. Gross Alpha Radioactivity	mCi								3.11.2.3
c. Isotopes Released									3.11.2.3.
Na-24	mCi	----	----	----	----	-----	2.57E-1	2.57E-1	
Tc-99m	mCi	----	----	----	----	-----	6.13E-2	6.13E-2	

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LAP-1110-3
Revision 1
October 22, 1984
7

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

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-curies	-	-	-	-	-	2.05E3	2.05E3	6.6.A.4.b
b. Gross Alpha Radioactivity	mCi	-	-	-	-	-	-	-	3.11.2.3
c. Isotopes Released									3.11.2.3
Rb-88	mCi	-	-	-	-	-	2.05E3	2.05E3	

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-13
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS: 50-373, 50-374 YEAR: 1984

I. Gaseous Effluents (cont)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6 Mo. TOTAL	TECH SPEC REF
3. Main Stack Particulate Release									
d. Percent Main Stack limit	%	8.4E-6	3.97E-6	1.14E-5	1.43E-5	6.44E-6	6.87E-6	4.76E-5	6.6.A.4.b.
e. Average Release Rate	uCi/sec	2.12E-4	1.58E-4	2.57E-1	9.31E-3	4.97E-4	1.69E-3	4.59E-2	3.11.2.1.b
4. Sum of Iodine and									6.6.A.4.b.
Particulate	Curies	9.46E-4	1.73E-3	6.90E-1	3.07E-2	6.81E-3	1.12E-2	7.41E-1	3.11.2.3
a. Percent Main Stack									
Limit	%	1.27E-5	3.45E-5	1.35E-5	2.89E-3	3.54E-3	9.07E-3	1.89E-2	
5. Gaseous Tritium									6.6.A.4.b
a. Release	Curies	<2.69E-9+	<2.7E-9+	<2.13E-9+	8.42E-1	<5.07E-9+	1.51E0	2.35E0	
b. Average Release Rate	uCi/sec	N/A	N/A	N/A	3.25E-1	N/A	5.83E-1	1.49E-1	
c. Percent Tech Spec Limit	%	N/A	N/A	N/A	5.63E-4	N/A	1.01E-3	1.57E-3	

+ Activity of each grab sample is less than LLD given (uCi/cc).

Table 1.1-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revison 1
October 22, 1984

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS: 50-373, 50-374 9 YEAR: 1984

I. 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	%	8.33E-6	1.51E-5	1.29E-5	7.53E-6	1.31E-5	1.19E-5	6.62E-5	
e. Average Release Rate	uCi/sec	1.07E-2	5.41E-3	6.95E-4	1.86E-4	4.09E-3	1.35E-1	1.38E-1	3.11.2.1.b.
									6.6.A.4.b.
4. Sum of Iodine and									
Particulate	Curies	4.71E-2	4.20E-2	2.32E-2	1.84E-3	1.11E-2	2.14E0	2.27E0	3.11.2.3.
a. Percent Main Stack									
Limit	%	9.13E-3	2.01E-2	1.17E-2	5.03E-5	1.31E-5	9.93E-5	1.13E-3	
									6.6.A.4.b.
5. Gaseous Tritium									
a. Release	Curies	1.76E0	1.73E-1	1.90E0	<3.75E-9+	<2.16E-9+	<4.50E-9+	3.83E0	
b. Average Release Rate	uCi/sec	6.57E-1	6.46E-2	7.33E-1	N/A	N/A	N/A	2.41E-1	
c. Percent Tech Spec									
Limit	%	1.17E-3	1.15E-4	1.04E-3	N/A	N/A	N/A	2.54E-3	

+ Activity of each sample is less than LLD given (uCi/cc)

Table 1.2-1

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

II. Liquid Effluents	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH. SPEC. REF.
1. Gross Radioactivity (β-γ)									
a. Total Release	Curies	1.23E-2	3.72E-2	6.75E-3	5.73E-3	None Released	6.03E-4	6.26E-2	6.6.A.4.b.
b. Avg. Conc. Released	uCi/ml	5.83E-9	2.35E-8	6.79E-9	3.61E-9	N/A	3.74E-9	9.72E-9	
c. Max. Conc. Released	uCi/ml	1.95E-8	5.14E-8	1.08E-8	1.77E-8	N/A	4.72E-9	5.14E-8	
d. Percent of Tech Spec (based on Avg. Conc. Released)	%	4.14E-2	5.63E-1	1.32E-1	6.40E-2	N/A	7.83E-3	8.08E-1	3.11.1.1
2. Tritium						None			6.6.A.4.b.
a. Total Release	Curies	2.52E-1	2.27E-1	1.43E-1	2.16E-1	Released	5.98E-2	8.97E-1	
b. Avg. Conc. Released	uCi/ml	2.64E-4	3.17E-4	2.83E-4	3.25E-4	N/A	4.76E-4	3.01E-4	
c. Percent of Tech Spec	%	2.62E-5	2.36E-5	1.49E-5	2.24E-5	N/A	6.20E-6	9.30E-5	
3. Dissolved Noble Gases						None			6.6.A.4.b.
a. Total Release	Curies	1.1E-5	1.41E-4	None	8.64E-5	Released	None	2.39E-4	
b. Avg. Conc. Released	uCi/ml	5.21E-12	8.92E-11	Detected	5.43E-11	N/A	Detected	3.71E-11	
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			6.6.A.4.b.
a. Total Release	Curies	<2.87E-7	<2.49E-7	2.34E-7	<2.95E-7	Released	4.22E-8	2.76E-7	
b. Avg. Conc. Released	uCi/ml	<3.0E-10	<3.48E-10	4.62E-10	<4.44E-10	N/A	2.99E-10	9.26E-11	
5. Volume of Liquid Waste	Liters	9.56E5	7.15E5	5.06E5	6.64E5	0	1.41E5	2.98E6	
6. Volume of Dilution Water	Liters	2.11E9	1.58E9	9.94E8	1.59E9	0	1.61E8	6.44E9	

* Data to be presented in an errata to this report.

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 1
October 12, 1984

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

II. Liquids Effluents	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
1. Gross Radioactivity(β-γ)									
a. Total Release	Curies	None Released	7.51E-5	1.10E-3	4.27E-3	7.33E-3	9.45E-3	2.22E-2	6.6.A.4.b.
b. Avg. Conc. Released	uCi/ml	N/A	5.96E-9	5.56E-9	1.12E-8	4.07E-8	3.66E-8	2.15E-8	
c. Max. Conc. Released	uCi/ml	N/A	5.96E-9	6.13E-9	1.52E-8	1.61E-7	5.75E-8	1.61E-7	
d. Percent of Tech Spec (based on Avg. Conc. Released)	%	N/A	1.78E-3	1.14E-2	2.15E-2	1.87E-3	6.01E-3	4.26E-2	3.11.1.1
2. Tritium		None							6.6.A.4.b.
a. Total Release	Curies	Released	4.68E-3	4.17E-2	6.84E-2	2.86E-2	6.08E-2	2.04E-1	
b. Avg. Conc. Released	uCi/ml	N/A	3.18E-4	3.26E-4	3.23E-4	3.20E-4	4.31E-4	3.49E-4	
c. Percent of Tech Spec	%	N/A	4.87E-7	4.33E-6	7.10E-6	2.97E-6	6.30E-6	2.12E-5	
3. Dissolved Noble Gases		None	None	None	None	None	None	None	6.6.A.4.b.
a. Total Release	Curies	Released	Detected	Detected	Detected	Detected	Detected	Detected	
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							6.6.A.4.b.
a. Total Release	Curies	Released	5.89E-9	5.83E-8	9.23E-8	3.73E-8	1.02E-7	2.96E-7	
b. Avg. Conc. Released	uCi/ml	N/A	4.00E-10	4.56E-10	4.35E-10	4.17E-10	7.23E-10	5.06E-10	
5. Volume of Liquid Waste	Liters	0	1.47E4	1.28E5	2.12E5	8.95E4	1.41E5	5.85E5	
6. Volume of Dilution Water	Liters	0	1.26E7	1.97E8	3.82E8	1.80E8	2.58E8	1.03E9	

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 12 YEAR: 1984

II. Liquid Effluents (cont'd)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF.
7. Isotopes Released	milli-curies	1.23E1	3.72E1	6.75E0	5.73E0	None Released	6.03E-1	6.26E1	
Cr-51	mCi	2.88E0	3.45E0	4.81E-1	5.15E-1	-----	---	7. 30	
Mn-54	mCi	4.13E0	4.04E0	1.12E0	1.18E0	-----	1.65E-1	1.06E1	
Co-58	mCi	1.05E0	1.01E0	1.98E-1	2.64E-1	-----	2.63E-2	2.55E0	
Fe-59	mCi	1.17E-1	1.29E-1	2.02E-2	5.3E-3	-----	---	1.55E-1	
Co-60	mCi	1.95E0	1.97E0	5.44E-1	6.54E-1	-----	1.35E-1	5.25E0	
Zn-65	mCi	5.10E-1	4.69E-1	1.18E-1	1.71E-1	-----	2.32E-2	1.29E0	
Sr-89	mCi	< 1.92E-3	1.67E-3	<2.13E-3	2.59E-3	-----	1.55E-3	5.81E-3	
Sr-90	mCi	< 8.40E-4	<5.01E-4	<5.06E-4	1.15E-3	-----	<1.43E-4	1.15E-3	
Fe-55	mCi	< 9.56E-1	<1.43E-1	<1.05E-1	7.81E-1	-----	<4.92E-2	7.81E-1	
Na-24	mCi	---	4.06E0	---	1.11E-2	-----	---	4.07E0	
I-133	mCi	---	3.61E-2	---	----	-----	---	3.61E-2	
I-131	mCi	---	1.58E-2	---	----	-----	---	1.58E-2	
Cs-134	mCi	<2.65E-1	< 1.98E-1	<1.40E-1	<1.50E-1	-----	<3.19E-2	<2.65E-1	
Cs-137	mCi	<2.96E-2	< 2.21E-2	<1.56E-2	<1.68E-1	-----	<3.57E-3	<2.96E-2	
Mo-99	mCi	1.5E-1	2.63E0	<1.06E-1	<1.14E-1	-----	<2.41E-2	2.78E0	
Te-99m	mCi	3.89E-2	4.12E-1	---	----	-----	---	4.51E-1	
As-76	mCi	1.39E-1	5.77E-1	2.0E-2	----	-----	---	7.36E-1	
Ce-144	mCi	<2.15E-1	< 1.61E-1	<1.14E-1	<1.22E-1	-----	<2.59E-2	<2.15E-1	
Sb-124	mCi	4.7E-3	1.18E-1	2.3E-3	----	-----	----	1.25E-1	
Xe-133	mCi	---	4.21E-2	- - -	2.38E-2	-----	----	6.59E-2	
Sb-122	mCi	---	9.03E-2	- - -	----	-----	----	9.03E-2	
Xe-135	mCi	1.1E-2	9.9E-2	- - -	2.76E-2	-----	----	1.38E-1	
W-187	mCi	4.7E-2	3.7E-2	- - -	----	-----	----	8.40E-2	

* Data to be presented in an errata to this report.

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 1
October 22, 1984

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374 13 YEAR: 1984

II. Liquid Effluents (cont'd)	UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	6MO. TOTAL	TECH.SPEC. REF
7. Isotopes Released	milli-curies	None Released	7.51E-2	1.10E0	4.27E0	7.33E0	9.45E0	2.22E1	
Cr-51	mCi	---	8.83E-6	2.3E-1	1.17E0	6.17E-1	2.51E-1	2.27E0	
Mn-54	mCi	---	2.21E-5	1.3E-1	1.02E0	4.10E0	5.21E0	1.05E1	
Co-58	mCi	---	3.53E-6	3.16E-2	2.66E-1	7.79E-1	1.01E0	2.09E0	
Fe-59	mCi	---	- - -	- - -	5.95E-2	6.20E-2	- - -	1.22E-1	
Co-60	mCi	---	2.80E-5	1.64E-1	7.38E-1	1.44E0	1.87E0	4.21E0	
Zn-65	mCi	---	3.24E-5	1.80E-2	7.31E-2	1.30E-1	2.84E-1	5.05E-1	
Sr-89	mCi	---	1.03E-4	6.75E-4	1.26E-3	5.82E-4	1.85E-3	4.47E-3	
Sr-90	mCi	---	4.56E-5	2.43E-4	4.98E-4	2.46E-4	1.34E-4	1.17E-3	
Zr-95	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
Nb-95	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
Ru-103	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
I-131	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
Cs-134	mCi	---	<3.32E-3	<2.89E-2	<4.79E-2	<4.39E-3	<6.91E-3	<LLD	
Cs-137	mCi	---	<3.72E-4	<3.24E-3	<5.36E-3	<3.94E-3	<6.20E-3	<LLD	
Ba-140/La-140	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
Mo-99	mCi	---	<2.51E-3	<2.19E-2	<3.63E-2	<3.40E-2	<5.36E-2	<LLD	
Ce-141	mCi	---	<6.26E-4	<5.45E-3	<9.03E-3	<6.00E-3	<9.45E-3	<LLD	
Ce-144	mCi	---	<2.70E-3	<2.36E-2	<3.90E-2	<2.42E-2	<3.81E-2	<LLD	
P-32	mCi	---	5.74E-2	3.67E-1	6.90E-1	6.0E-2	1.93E-1	1.37E0	
Fe-55	mCi	---	1.75E-2	1.50E-1	2.50E-1	1.06E-1	5.58E-1	1.08E0	
Sb-124	mCi	---	- - -	4.90E-3	5.47E-3	3.66E-2	7.06E-2	1.15E-1	
Xe-135	mCi	---	- - -	- - -	- - -	- - -	- - -	0	
Na-24	mCi	---	- - -	- - -	- - -	- - -	1.20E-3	1.20E-3	

Table 1.2-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983
12

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 YEAR: 1984

II. Liquid Effluents(cont'd)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH.SPEC. REF.
7. Isotopes Released	milli-curies					None Released			
P-32	mCi	1.33E0	1.81E1	4.25E0	2.0EE0	-----	2.52E-1	2.60E1	
Ar-41	mCi	----	----	----	3.5E-2	-----	----	3.50E-2	

* DATA TO BE PRESENTED IN AN ERRATA TO THIS REPORT

Table 2.0-1

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983

FACILITY: LASALLE COUNTY NPS UNIT 1 DOCKET NOS.: 50-373, 50-374 14 YEAR: 1984

III. Solid Waste Shipped Offsite for Burial or Disposal	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6MO. TOTAL	TECH. SPEC. REF.
1. Spent Resins, Filter Sludges, Evaporator Bottoms, etc.									6.6.A.4.b.
a. Quantity Shipped	Cu. meters	3.31E1	3.84E1	4.20E1	3.11E1	4.24E1	7.03E0	1.94E2	
b. Type of Waste		Evap Bottoms	Evap Bottoms	Evap Bottoms	Evap Bottoms	Evap Bottoms	Evap Bottoms	N/A	
c. Radioactivity - Total	curies	6.818E0	8.378E0	6.739E0	4.924E0	1.327E1	1.544E0	4.167E1	
Measured or Estimated?		Measured	Measured	Measured	Measured	Measured	Measured	N/A	
d. Principle Radionuclides		Cr-51, Fe-59 Co-58, Mn-54	Same	Same	Same	Same	Same	N/A	
Measured or Estimated?		Measured	Measured	Measured	Measured	Measured	Measured	N/A	
e. Type of Container (LSA, Type A, Type B, Lge Quantity)		LSA	LSA	LSA	LSA	LSA	LSA	N/A	
Container Volume	Cu. meters	2.12E-1	2.12E-1 or 3.29E-1	Same as Feb.	Same as Feb.	Same as Feb.	Same as Feb.	N/A	
f. Solidification Agent		Cement	Cement	Cement	Cement	Cement	Cement	N/A	
2. Dry Compressible Waste, Contaminated Equipment, etc.									6.6.A.4.b.
a. Quantity Shipped	Cu. meters	3.25E1	1.93E1	4.63E1	2.66E1	1.29E1	None Shipped	1.38E2	
b. Radioactivity - Total	Curies	1.251E-1	3.11E-2	8.86E-1	1.00E-1	7.05E-2	N/A	1.21E0	
Measured or Estimate?		Measured	Measured	Measured	Measured	Measured	N/A	N/A	
c. Principle Radionuclides		Cr-51, Fe-59 Co-58, Mn-54	Same	Same	Same	Same	N/A	N/A	
Measured or Estimate?		Measured	Measured	Measured	Measured	Measured	N/A	N/A	
d. Type of Container (LSA, Type A, Type B, Lge. Quantity)		LSA	LSA	LSA	LSA	LSA	N/A	N/A	
Container Volume	Cu. meters	2.12E-1 or 2.72E0	Same	Same or 3.29E-1	Same as March	Same as Jan.	N/A	N/A	
e. Type of Waste		DAW	DAW	DAW	DAW	DAW	N/A	N/A	

Table 2.0-1 (continued)

RWA - Richland, Washington
BSC - Barnwell, South Carolina
CN - Chem Nuclear Co.
HNI - Hittman Nuclear & Development Co.

SOLID RADIOACTIVE WASTE SUMMARY
UNITS 1/2
LASALLE COUNTY NUCLEAR POWER STATION

LRP 1110-3
Revision 0
March 24, 1983
16

ATTACHMENT A

DATE	DISPOSITION OF MATERIAL		Type of Waste	Type of Container	Solidification Agent	Principle Nuclides	Shipment Volume (ft^3)	Shipment Activity (mCi)	Volume per Month (ft^3)	Activity Per Month (mCi)
	TRANS CO.	BURIAL SITE								
04JAN84	Tri-State M.T.	RWA	Evap Bottoms	LSA	Cement	Cr-51	300	1246	300	1246
07JAN84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Fe-59	352.5	864.3	652.5	2110.3
13JAN84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-58	396	993.3	1048.5	3103.6
17JAN84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-60	514.5	1074	1563	4177.6
23JAN84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Mn-54	486	1251.9	2049	5429.5
25JAN84	Tri-State M.T.	RWA	Evap Bottoms	LSA	Cement	Zn-65	270	1513.6	2319	6943.1
01FEB84	Tri-State M.T.	RWA	Evap Bottoms	LSA	Cement	Cr-51	270	1621.7	270	1621.7
03FEB84	CN	RWA	Evap Bottoms	LSA	Cement	Fe-59	240	1545.4	510	3167.1
09FEB84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-58	462	941.3	972	4108.4
17FEB84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-60	359.2	1348.3	1331.2	5456.7
17FEB84	CN	BSC	Evap Bottoms	LSA	Cement	Mn-54	248.2	1888.9	1579.4	7345.6
24FEB84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Zn-65	458.6	1063.3	2038.0	8408.9
02MAR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Cr-51	488.6	1140.7	488.6	1140.7
03MAR84	Tri-State M.T.	RWA	DAW	LSA	N/A	Fe-59	580.8	70.1	1069.4	1210.8
08MAR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-58	322.5	1265.0	1391.9	2475.8
15MAR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-60	396.0	1582.4	1787.9	4058.2
22MAR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Mn-54	322.5	1417.0	2110.4	5475.2
22MAR84	Tri-State M.T.	RWA	DAW	LSA	N/A	Zn-65	676.5	717.8	2786.9	6193.0
29MAR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement		330.0	1432.0	3116.9	7625.0
05APR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Cr-51	338.2	1305.4	338.2	1305.2
13APR84	Tri-State M.T.	RWA	Evap. Bottoms	LSA	Cement	Fe-59	326.6	1424.1	664.8	2729.3
17APR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-58	366	1315.8	1030.8	4045.1
19APR84	Tri-State M.T.	RWA	EB & DAW	LSA	Cement	Co-60	423.3	901.6	1454.1	4946.7
27APR84	Tri-State M.T.	RWA	DAW	LSA	N/A	Mn-54	582.7	77.0	2036.8	5023.7

Table 2.0-1 (continued)

RWA - Richland, Washington
BSC - Barnwell, South Carolina
CN - Chem Nuclear Co.
HN - Hittman Nuclear & Development Co.

SOLID RADIOACTIVE WASTE SUMMARY
UNITS 1/2
LASALLE COUNTY NUCLEAR POWER STATION

ATTACHMENT A

LRP 1110-3
Revision 0
March 24, 1983
16

DATE	DISPOSITION OF MATERIAL		Type of Waste	Type of Container	Solidification Agent	Principle Nuclides	Shipment Volume (ft^3)	Shipment Activity (mCi)	Volume per Month (ft^3)	Activity Per Month (mCi)
	TRANS CO.	BURIAL SITE								
03MAY84	CN	RWA	EB & DAW	LSA	CEMENT	Cr-51	277.5	1995.9	277.5	1995.9
08MAY84	CN	RWA	EB & DAW	LSA	CEMENT	Fe-59	274.1	1981.0	551.6	3976.9
11MAY84	CN	RWA	EB & DAW	LSA	CEMENT	Co-58	300.0	1821.0	851.6	5797.9
17MAY84	CN	RWA	EB & DAW	LSA	CEMENT	Co-60	336.0	2068.2	1187.6	7866.1
22MAY84	CN	RWA	EVAP BOTTOMS	LSA	CEMENT	Mn-54	256.4	1650.6	1444.0	9516.7
24MAY84	CN	RWA	EB & DAW	LSA	CEMENT	Zn-65	240.0	1610.2	1684.0	11126.9
31MAY84	CN	RWA	EB & DAW	LSA	CEMENT		270.0	2210.0	1954.0	13336.9
28JUN84	CN	RWA	Evap Bottoms	LSA	CEMENT	Same as Above	248.2	1544.0	248.2	1544.0

Table 2.0-1 (continued)

REPORT OF RADIOACTIVE EFFLUENTS

ATTACHMENT A

FACILITY: LASALLE COUNTY NPS UNIT 1 & 2 DOCKET NOS.: 50-373, 50-374

LRP 1110-3
Revision 1
October 22, 1984
15 YEAR: 1984

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.									6.6.A.4.b.
a. Quantity Shipped	Cu. meters	3.99E1	6.12E1	6.58E1	7.29E1	4.35E1	4.95E1	3.33E2	
b. Type of Waste		EB,SR,FS	EB,SR,FS	EB,SR,FS	EB,SR,FS	EB,SR,FS	EB,SR,FS	N/A	
c. Radioactivity - Total	curies	1.338E1	1.684E1	1.841E1	2.419E1	3.633E1	2.497E1	1.34E2	
Measured or estimate?		Measured	Measured	Measured	Measured	Measured	Measured	N/A	
d. Principle Radionuclides		Cr-51,Fe59 Co-58,Mn54	Same	Same	Same	Same	Same	N/A	
Measured or estimate?		Measured	Measured	Measured	Measured	Measured	Measured	N/A	
e. Type of Container (LSA, Type A,Type B,Lge Quantity)		LSA	LSA	LSA	LSA	LSA	LSA	N/A	
Container Volume	Cu. meters	2.12E-1 or 3.29E-1	2.12E-1	Same as July	Same as July	2.12E-1 or 5.15E0	Same as July	N/A	
f. Solidification Agent		Cement	Cement	Cement	Cement	Cement	Cement	N/A	
2. Dry Compressible Waste, Contaminated Equipment, etc.									6.6.A.4.b.
				None					
a. Quantity Shipped	Cu. meters	3.87E1	1.76E1	Shipped	4.06E1	1.92E1	5.90E1	1.75E2	
b. Radioactivity - Total	Curies	1.495E-1	6.26E-2	N/A	3.55E-1	2.63E-1	2.45E0	3.28E0	
Measured or estimate?		Measured	Measured	N/A	Measured	Measured	Measured	N/A	
c. Principle Radionuclides		Cr-51,Fe59 Co-58,Mn54	Same	N/A	Same	Same	Same	N/A	
Measured or estimate?		Measured	Measured	N/A	Measured	Measured	Measured	N/A	
d. Type of Container (LSA, Type A,Type B,Lge.Quantity)		LSA	LSA	N/A	LSA	LSA	LSA	N/A	
Container Volume	Cu. meters	2.12E-1 or 5.72E0	Same as 3.29E-1	N/A	Same as August	Same as July	Same as July	N/A	
e. Type of Waste		DAW	DAW	N/A	DAW	DAW	DAW	N/A	

Table 2.0-1 (continued)

RWA - Richland, Washington
BSC - Barnwell, South Carolina
CN - Chem Nuclear Co.
HW - Hittman Nuclear & Development Co.

SOLID RADIOACTIVE WASTE SUMMARY
UNITS 1/2
LASALLE COUNTY NUCLEAR POWER STATION

ATTACHMENT A

LRP 1110-3
Revision 1
October 22, 1984
16

DATE	DISPOSITION OF MATERIAL		Type of Waste	Type of Container	Solidification Agent	Principle Nuclides	Shipment Volume (ft^3)	Shipment Activity (mCi)	Volume per Month (ft^3)	Activity Per Month (mCi)
	TRANS CO.	BURIAL SITE								
05 Jul 84	CN	RWA	Evap Bottoms	LSA	Cement	Cr-51	240	2031.3	240	2031.3
10 Jul 84	CN	RWA	Evap. Bottoms	LSA	Cement	Fe-59	240	1805.7	480	3837.0
12 Jul 84	CN	RWA	EB & SR	LSA	Cement	Co-60	252.3	2541.4	732.3	6378.4
18 Jul 84	CN	RWA	EB & SR	LSA	Cement	Co-58	225	2428.6	957.3	8807.0
19 Jul 84	CN	RWA	EB & SR	LSA	Cement	Mn-54	210	2529.4	1167.3	11366.4
24 Jul 84	Tri-State M.T.	RWA	DAW	LSA	N/A	Zn-65	756	50.7	1923.3	11417.1
27 Jul 84	Tri-State M.T.	RWA	DAW	LSA	N/A	H-3	612	98.8	2535.3	11515.9
30 Jul 84	CN	RWA	EB & SR	LSA	Cement	C-14	240	2014.4	2775.3	13530.3
01 Aug 84	CN	RWA	EB & SR	LSA	Cement	Cr-51	240	1985.3	240	1985.3
07 Aug 84	CN	RWA	EB & SR	LSA	Cement	Fe-59	240	2232.8	480	4218.1
09 Aug 84	CN	RWA	Evap Bottoms	LSA	Cement	Co-60	240	1836.0	720	6054.1
14 Aug 84	CN	RWA	EB & SR	LSA	Cement	Co-58	240	1460.4	960	7514.5
16 Aug 84	CN	RWA	EB & SR	LSA	Cement	Mn-54	240	1630.3	1200	9144.8
21 Aug 84	CN	RWA	Evap Bottoms	LSA	Cement	Zn-65	240	1750.4	1440	10895.2
23 Aug 84	CN	RWA	EB & SR	LSA	Cement	H-3	240	1872.3	1680	12767.5
27 Aug 84	Tri-State M.T.	RWA	DAW	LSA	N/A	C-14	622.8	62.6	2302.8	12830.1
28 Aug 84	CN	RWA	EB & SR	LSA	Cement		240	2027.0	2542.8	14857.1
31 Aug 84	CN	RWA	EB & SR	LSA	Cement		240	2048.1	2782.8	16905.2
04 Sep 84	CN	RWA	EB & SR	LSA	Cement	Cr-51	240	1859.4	240	1859.4
06 Sep 84	CN	RWA	EB & SR	LSA	Cement	Fe-59	274.8	2215.5	514.8	4074.9
11 Sep 84	CN	RWA	EB & SR	LSA	Cement	Co-60	274.8	1715.4	789.6	5790.3
13 Sep 84	CN	RWA	EB & SR	LSA	Cement	Co-58	251.6	1938.5	1041.2	7728.8
18 Sep 84	CN	RWA	Evap Bottoms	LSA	Cement	Mn-54	274.8	2053.5	1316.0	9782.3
20 Sep 84	CN	RWA	Evap Bottoms	LSA	Cement	Zn-65	255.7	1950.8	1571.7	11733.1

Table 2.0-1 (continued)

RWA - Richland, Washington
BSC - Barnwell, South Carolina
CN - Chem Nuclear Co.
HMI - Hittman Nuclear & Development Co.

SOLID RADIOACTIVE WASTE SUMMARY
UNITS 1/2
LASALLE COUNTY NUCLEAR POWER STATION

ATTACHMENT A

DATE	DISPOSITION OF MATERIAL		Type of Waste	Type of Container	Solidification Agent	Principle Nuclides	Shipment Volume (ft^3)	Shipment Activity (mCi)	Volume per Month (ft^3)	Activity Per Month (mCi)
	TRANS CO.	BURIAL SITE								
21 Sep 84	CN	RWA	EB & SR	LSA	Cement	Cr-51 Fe-55 Co-60 Co-58 Mn-54	240.0	1909.5	1811.7	13642.6
25 Sep 84	CN	RWA	Evap Bottoms	LSA	Cement		255.0	2446.4	2066.7	16089.0
27 Sep 84	CN	RWA	EB & SR	LSA	Cement		255.0	2322.5	2321.7	18411.5
01 Oct 84	Tri-State M.T.	RWA	DAW	LSA	N/A	Cr-51	678.0	106.8	678.0	106.8
02 Oct 84	Tri-State M.T.	RWA	EB & SR	LSA	Cement	Fe-59	334.1	1855.3	1012.1	1962.1
04 Oct 84	CN	RWA	Evap Bottoms	LSA	Cement	Co-58	255.0	2571.7	1267.1	4533.8
05 Oct 84	CN	RWA	EB & SR	LSA	Cement	Co-60	255.0	2812.5	1522.1	7346.3
09 Oct 84	CN	RWA	EB & SR	LSA	Cement	Mn-54	262.5	2612.0	1784.6	9958.3
11 Oct 84	CN	RWA	EB & SR	LSA	Cement	Zn-65	255.0	2735.4	2039.6	12693.7
16 Oct 84	CN	RWA	Evap Bottoms	LSA	Cement	Fe-55	255.0	2875.3	2294.6	15569.0
18 Oct 84	CN	RWA	Evap Bottoms	LSA	Cement	H-3	255.0	2250.4	2549.6	17819.4
23 Oct 84	CN	RWA	EB & DAW	LSA	Cement	C-14	255.0	2222.4	2804.6	20041.8
24 Oct 84	Tri-State M.T.	RWA	DAW	LSA	N/A	Ni-63	678.0	210.7	3482.6	20252.5
25 Oct 84	CN	RWA	EB, SR & DAW	LSA	Cement	↓	270.7	2020.3	3753.3	22272.8
31 Oct 84	CN	RWA	EB, SR & FS	LSA	Cement		255.0	2271.6	4008.3	24544.4
2 Nov 84	Tri-State M.T.	RWA	SR	LSA	Cement	Cr-51	182.0	8632.0	182.0	8632.0
6 Nov 84	McCormack's Hgwy. Transp., Inc.	RWA	SR	LSA	Cement	Fe-59	182.0	11682.0	364.0	20314.0
6 Nov 84	CN	RWA	EB, SR & DAW	LSA	Cement	Co-58	262.5	2510.5	626.5	22824.5
13 Nov 84	Tri-State M.T.	RWA	SR	LSA	Cement	Co-60	182.0	2440.0	808.5	25264.5
14 Nov 84	CN	RWA	EB, SR & DAW	LSA	Cement	Mn-54	543.0	1917.9	1351.5	27182.4
15 Nov 84	CN	RWA	EB, SR & DAW	LSA	Cement	Zn-65	295.5	2878.7	1647.0	30061.1
21 Nov 84	CN	RWA	EB, SR & FS	LSA	Cement	Fe-55	255.0	3281.3	1902.0	33342.4
28 Nov 84	CN	RWA	EB, SR & FS	LSA	Cement	Ni-63	285.0	3249.6	2187.0	36592.0
04 Dec 84	CN	RWA	[illegible], FS & DAW	LSA	Cement	Cr-51	558.0	2354.0	558.0	2354.0

Table 2.0-1 (continued)

RWA - Richland, Washington
BNI - Barnwell, South Carolina
CE - Chem Nuclear Co.
WH - Wilmon Nuclear & Development Co.

SOLID RADIOACTIVE WASTE SUMMARY
UNITS 1/2
LASALLE COUNTY NUCLEAR POWER STATION

LRP-1110-3
Revision 1
October 22, 1984
16

ATTACHMENT A

DATE	DISPOSITION OF MATERIAL		Type of Waste	Type of Container	Solidification Agent	Principle Nuclides	Shipment Volume (ft^3)	Shipment Activity (mCi)	Volume per Bqtl (ft^3)	Activity Per Bqtl (mCi)
	TRANS CO.	BURIAL SITE								
06 Dec 84	CN	RWA	EB,SR FS & DAW	LSA	Cement	Cr-51	270	2799.5	828	5153.5
10 Dec 84	CN	RWA	EB,SR FS & DAW	LSA	Cement	Fe-59	462	3326.6	1290	8280.1
13 Dec 84	CN	RWA	EB,SR FS & DAW	LSA	Cement	Co-58	323.9	2700.0	1613.9	10980.1
14 Dec 84	Tri-State M.T.	RWA	DAW	LSA	N/A	Co-60	726	440.7	2339.9	11420.8
14 Dec 84	CN	RWA	FS	LSA	Cement	Mn-54	105	6642.9	2444.9	18063.7
18 Dec 84	CN	RWA	EB,FS & DAW	LSA	Cement	Zn-65	285	2374.0	2729.9	20437.7
24 Dec 84	CN	RWA	EB,FS SR & DAW	LSA	Cement	Fe-55	352.5	3023.6	3082.4	23461.3
28 Dec 84	CN	RWA	FS & DAW	LSA	Cement	Ni-63	105	5868.8	3187.4	29330.1
28 Dec 84	CN	RWA	EB & DAW	LSA	Cement	H-3	322.5	2352.3	3509.9	31682.4
31 Dec 84	CN	RWA	EB,FS SR & DAW	LSA	Cement	C-14	322.5	2375.0	3832.4	34057.4

Figure 3.1-1

Estimated Cumulative Gamma Dose (mrem) from the LaSalle Station for the period January-December 1984.

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

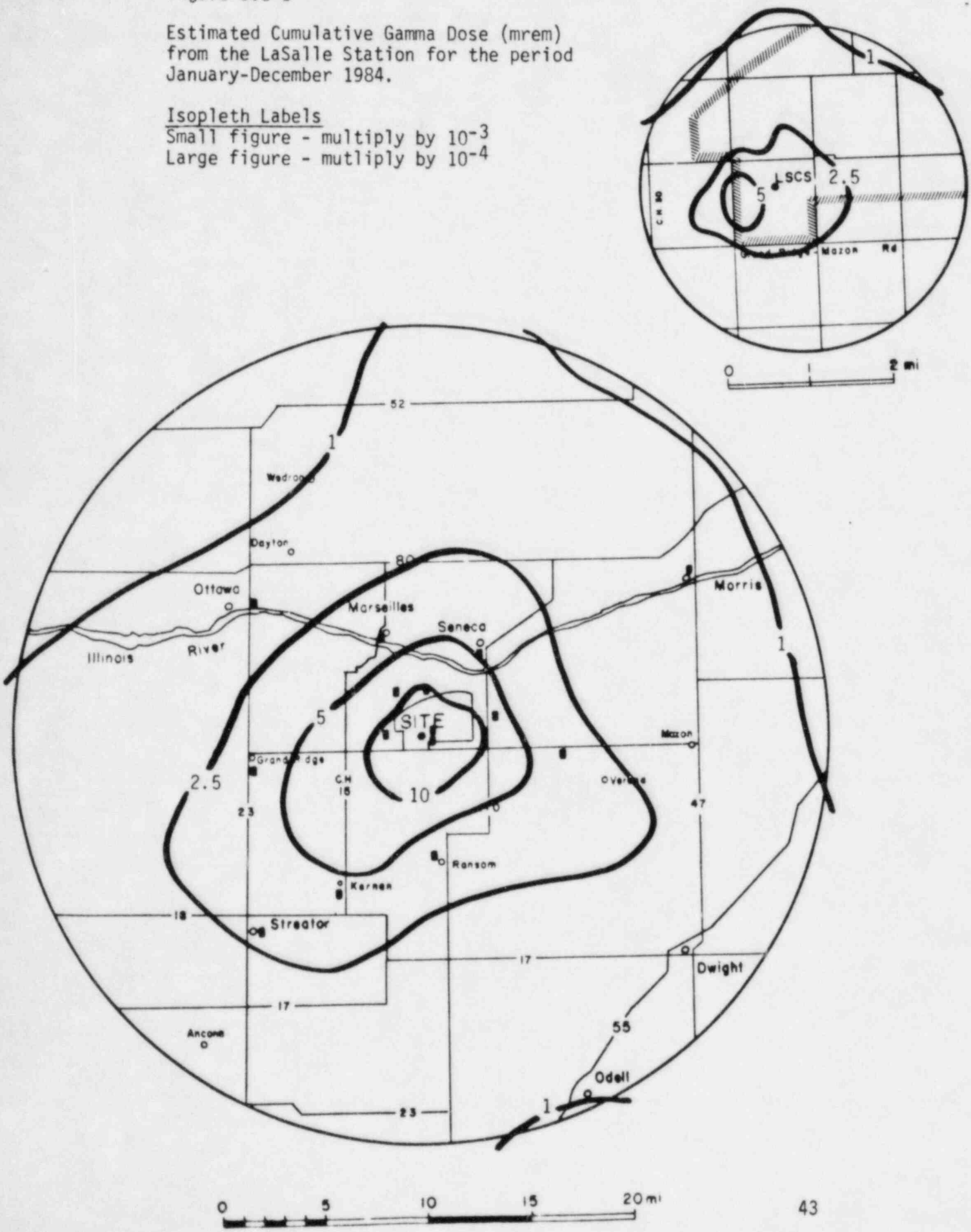
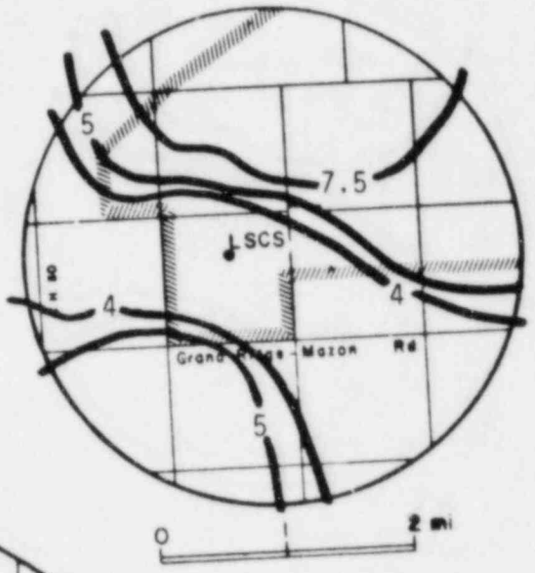


Figure 3.1-2

Estimated Total Concentration (pCi/m^3) of Noble Gases from the LaSalle Station for the period January-December 1984.

Isopleth Labels
Small figure - multiply by 10^{-1}
Large figure - multiply by 10^{-1}



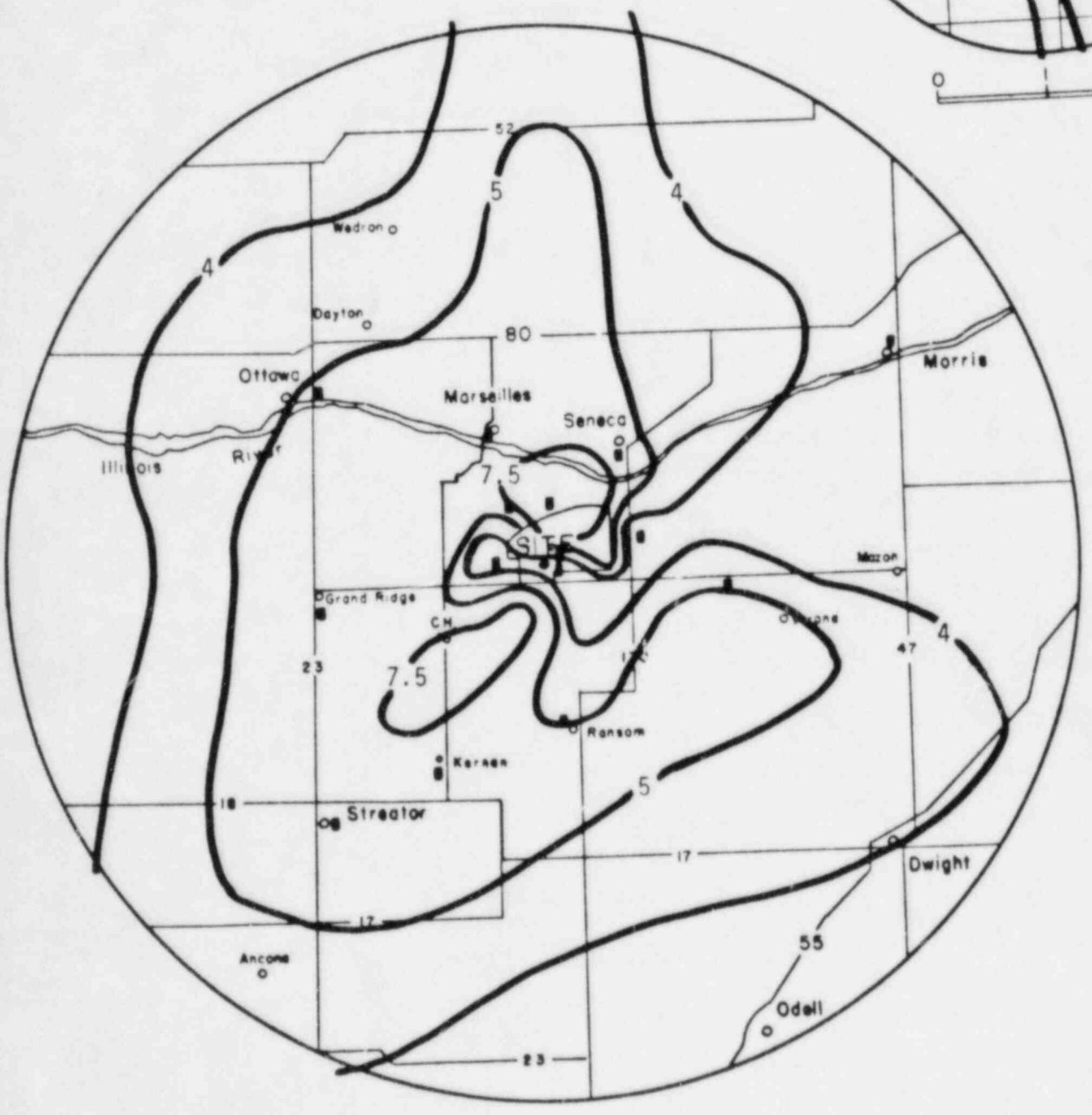


Figure 3.1-3

Estimated Total Concentration (pCi/m^3) of Iodine from the LaSalle Station for the period January-December 1984.

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

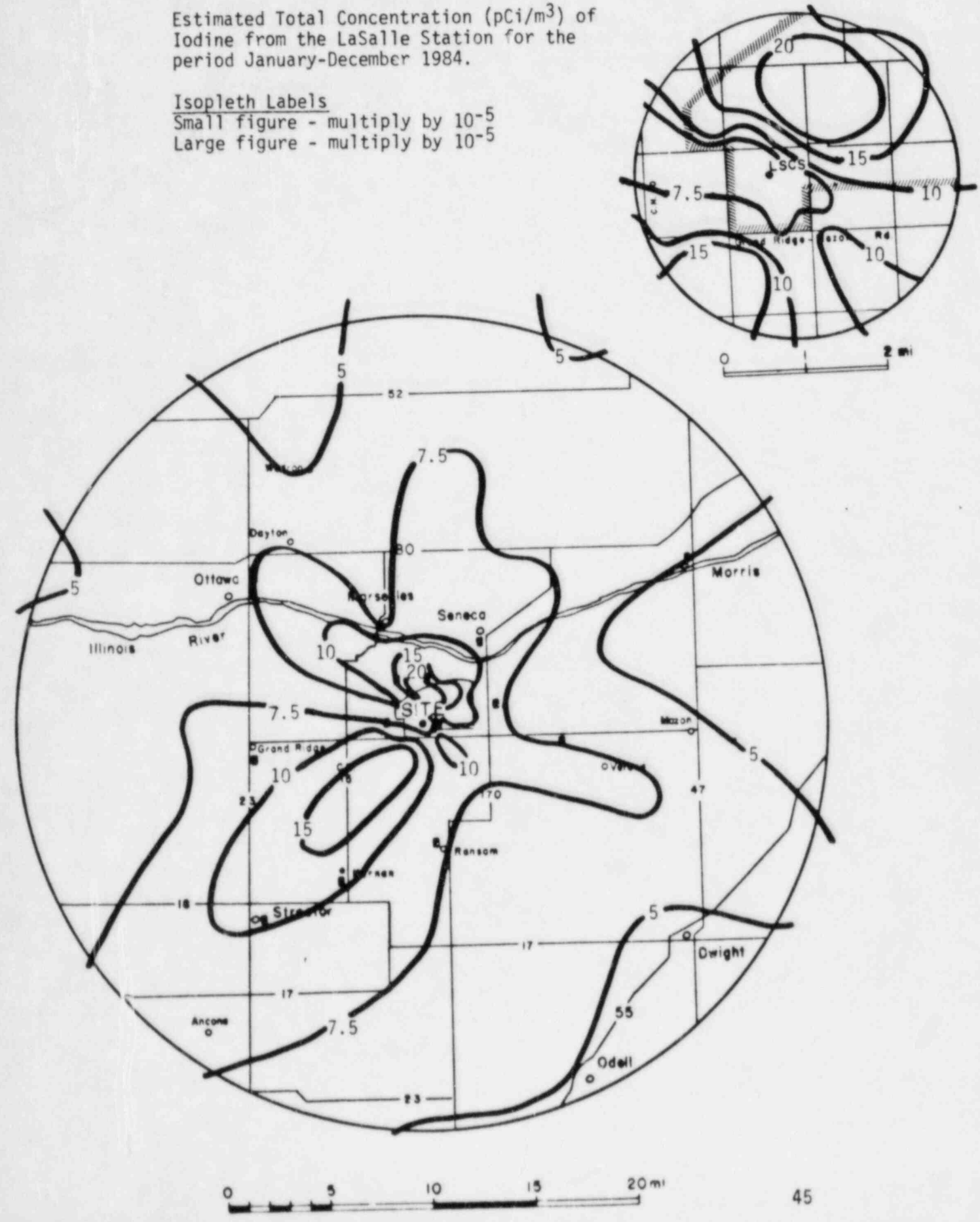


Figure 3.1-4

Estimated Total Concentration (pCi/m^3) of Particulate Matter from the LaSalle Station for the period January-December 1984.

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

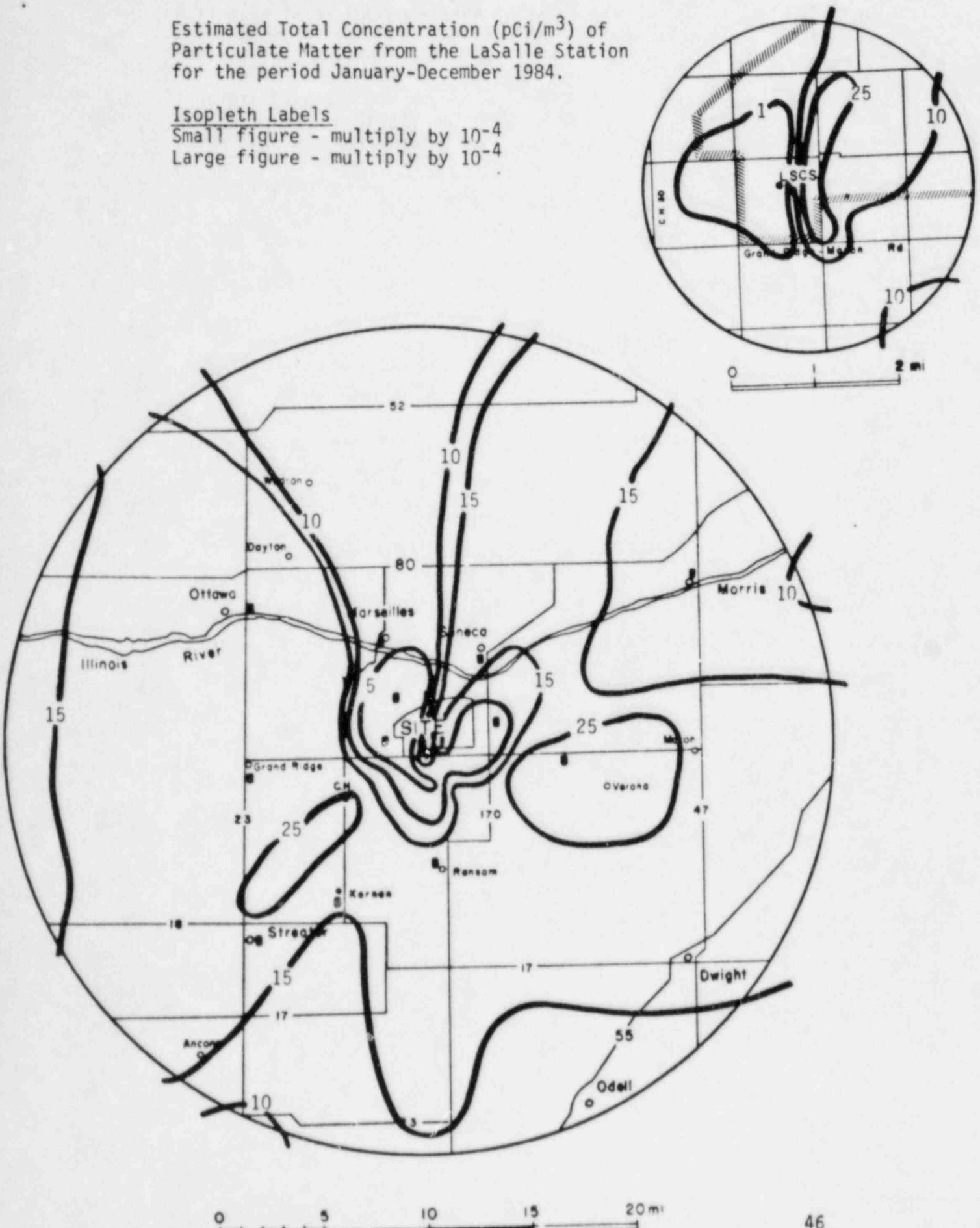


Table 3.1-1

LASALLE UNIT ONE

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 1/ 1/84 TO 12/31/84 CALCULATED 03/21/85

TYPE	1ST QUARTER 1/84- 3/84	2ND QUARTER 4/84- 6/84	3RD QUARTER 7/84- 9/84	4TH QUARTER 10/84-12/84	ANNUAL
GAMMA AIR (MRAD)	5.88E-03 (ESE)	3.22E-03 (ESE)	1.45E-03 (ESE)	3.11E-04 (ESE)	1.09E-02 (ESE)
BETA AIR (MRAD)	3.16E-04 (E)	3.00E-04 (E)	3.61E-04 (E)	2.57E-04 (E)	1.23E-03 (E)
TOT. BODY (MREM)	3.48E-03 (ESE)	1.84E-03 (ESE)	7.43E-04 (ESE)	1.19E-04 (ESE)	6.19E-03 (ESE)
SKIN (MREM)	4.82E-03 (ESE)	2.70E-03 (ESE)	1.29E-03 (ESE)	3.31E-04 (ESE)	9.14E-03 (ESE)
ORGAN (MREM)	1.97E-05 (E)	2.63E-03 (E)	6.93E-03 (E)	1.30E-03 (E)	1.09E-02 (E)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1984

COMPLIANCE STATUS - 10 CFR 50 APP.I

	QTRLY OBJ	1ST QTR 1/84- 3/84	2ND QTR 4/84- 6/84	3RD QTR 7/84- 9/84	4TH QTR 10/84- 12/84	YRLY OBJ	% APP.
		---------- % OF APP I. ----------					
GAMMA AIR (MRAD)	5.0	0.12	0.06	0.03	0.01	10.0	0.1
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.0
TOT. BODY (MREM)	2.5	0.14	0.07	0.03	0.00	5.0	0.1
SKIN (MREM)	7.5	0.06	0.04	0.02	0.00	15.0	0.0
ORGAN (MREM)	7.5	0.00	0.04	0.09	0.02	15.0	0.0
		THYROID	THYROID	THYROID	THYROID		THYRO

RESULTS BASED UPO
ODCM REVISION 10
UPDATE DN000
MARCH 1985

Table 3.2-1

LASALLE UNIT ONE
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERIOD OF RELEASE - 1/ 1/84 TO 12/31/84 CALCULATED 02/11/85

DOSE TYPE	1ST QUARTER 1/84- 3/84	2ND QUARTER 4/84- 6/84	3RD QUARTER 7/84- 9/84	4TH QUARTER 10/84-12/84	ANNUAL
TOTAL BODY	2.34E-03	7.62E-07	8.83E-08	0.0	1.25E-02
INTERNAL ORGAN	6.03E-02	3.86E-06	5.17E-07	0.0	3.23E-01
	BONE	GI-LLI	GI-LLI	BONE	BONE

* THIS IS A REPORT FOR THE CALENDAR YEAR 1984

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	1ST QTR 1/84- 3/84	2ND QTR 4/84- 6/84	3RD QTR 7/84- 9/84	4TH QTR 10/84- 12/84	YRLY OBJ	% OF APP. I
		% OF APP I.					
TOTAL BODY (MREM)	1.5	0.16	0.00	0.00	0.0	3.0	0.42
CRIT. ORGAN(MREM)	5.0	1.21	0.00	0.00	0.0	10.0	3.23
		BONE	GI-LLI	GI-LLI	BONE		BONE

Table 3.2-1 (continued)

LASALLE UNIT ONE

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
PERIOD OF RELEASE - 12/30/84 TO 12/31/84 CALCULATED 02/11/85

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER 10/84-12/84	1ST PREV QUARTER 7/84- 9/84	2ND PREV QUARTER 4/84- 6/84	3RD PREV QUARTER 1/84- 3/84	ANNUAL
TOTAL BODY	0.0	1.66E-06	3.14E-08	1.94E-07	6.23E-06	8.11E-06
INTERNAL ORGAN	0.0	1.13E-05	2.71E-07	1.65E-06	9.11E-05	9.40E-05
		GI-LLI	GI-LLI	GI-LLI	BONE	BONE

* LAST PERIOD OF RELEASE - 12/30/84 TO 12/31/84 CALCULATED 02/08/85
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 40 CFR 141

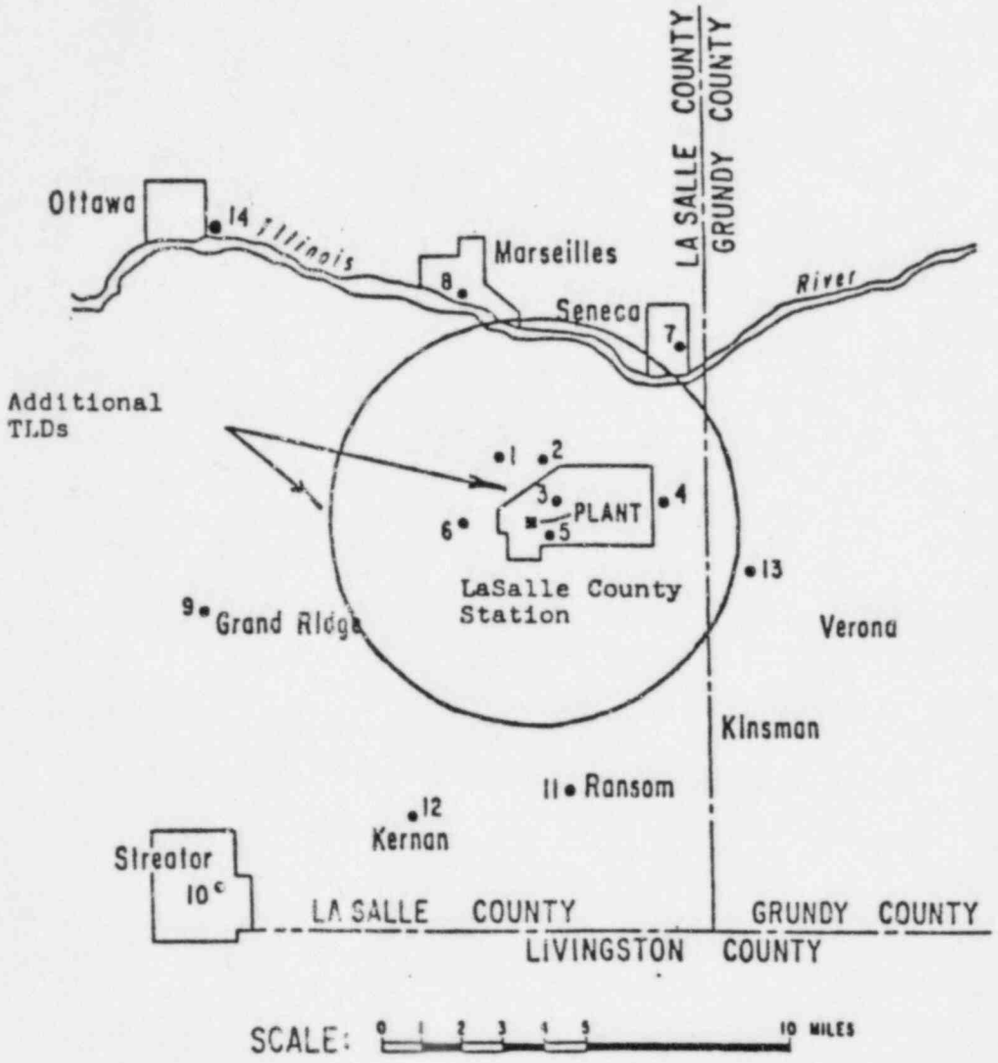
TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 (MREM)	0.000
INTERNAL ORGAN	4.0 (MREM) BONE	0.002

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141. A PROJECTED DOSE OF 2 MREM USING CECO TECHNIQUES IS APPROXIMATELY 4 MREM USING EPA METHODS.

Figure 5.0-1

LASALLE COUNTY NUCLEAR POWER STATION

LOCATIONS OF FIXED ENVIRONMENTAL RADIOLOGICAL MONITORING STATIONS



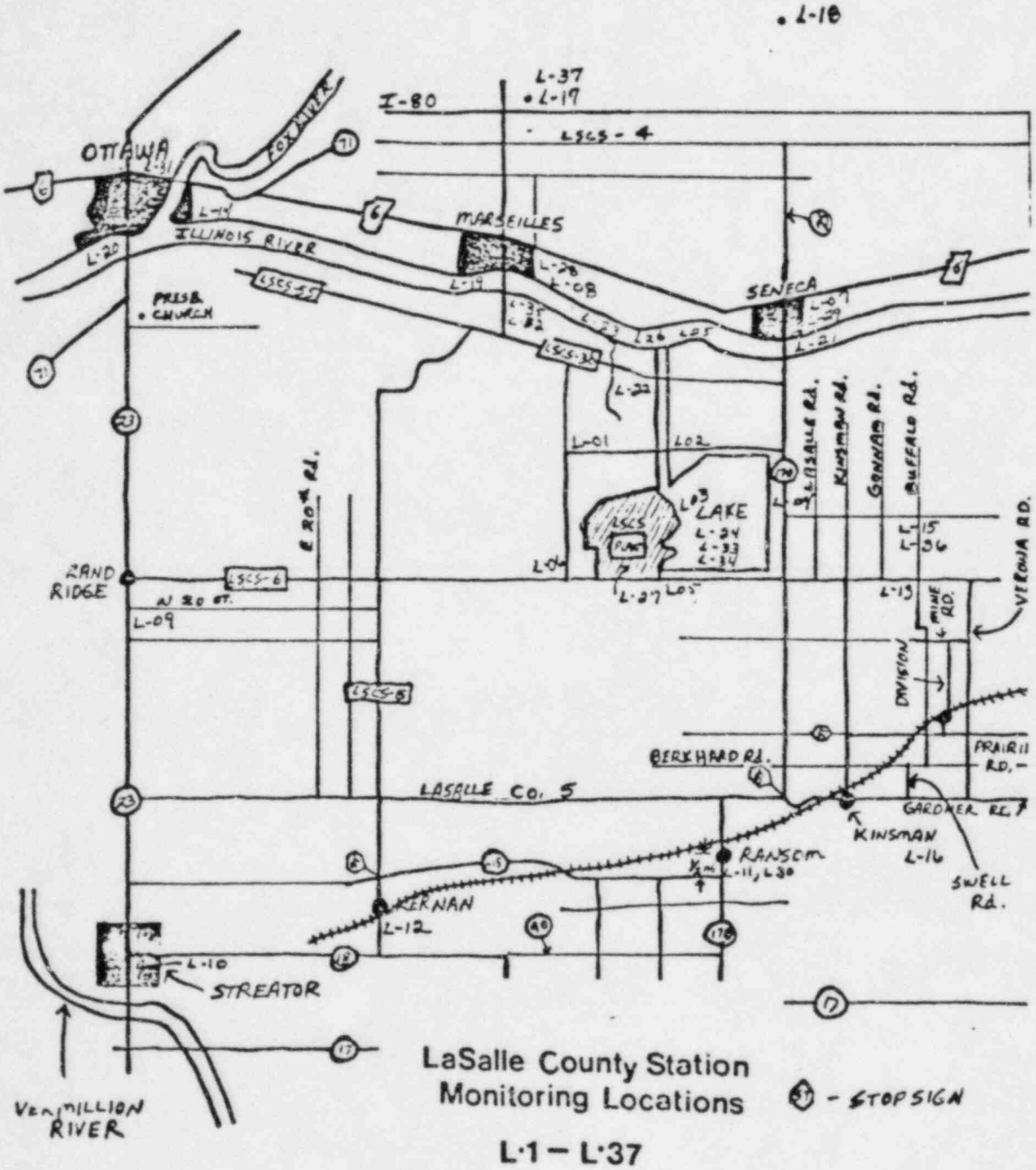
Air Samplers

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.

Figure 5.0-2

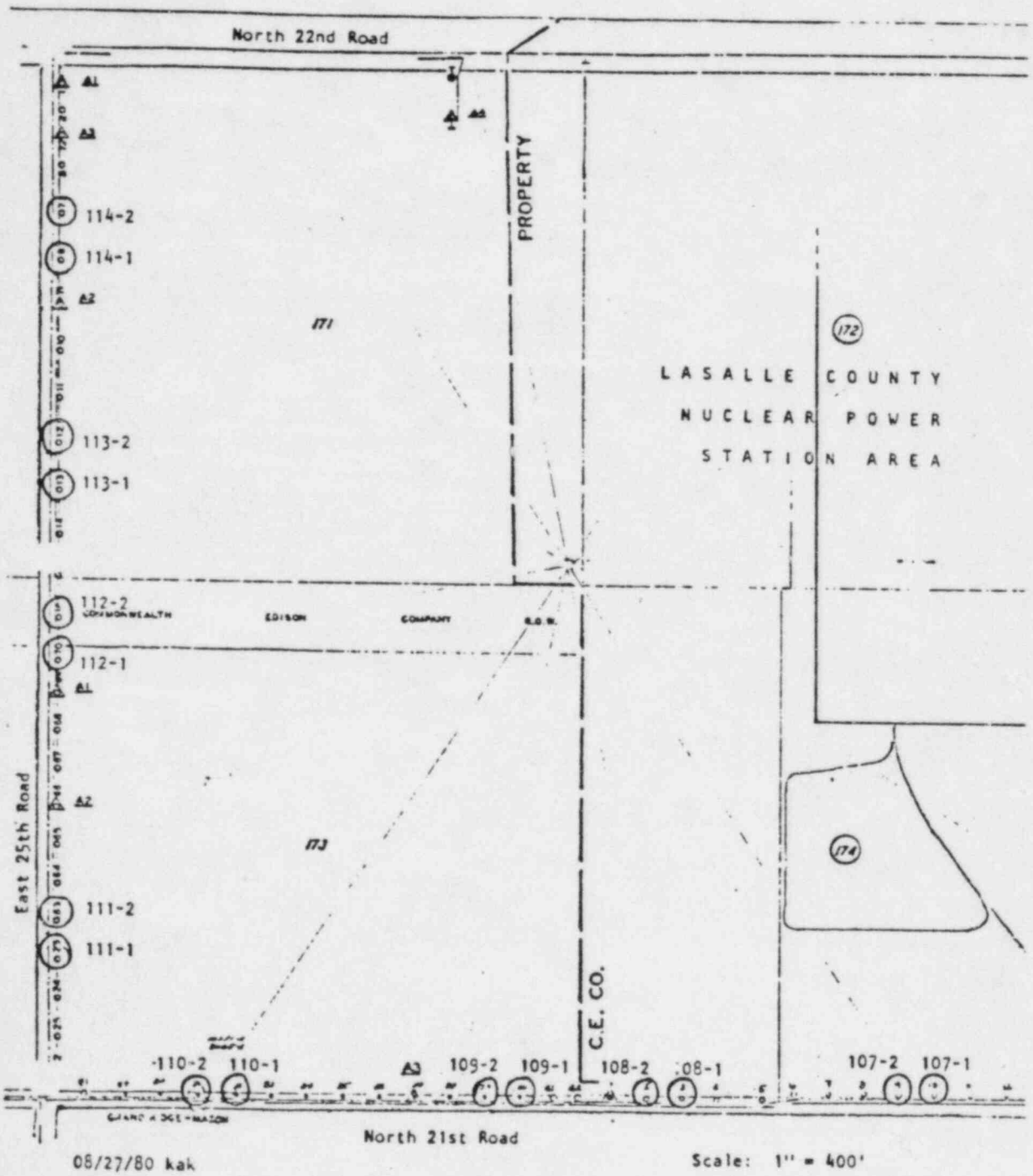

L-18
L-37
L-19
I-80
LSCS - 4
OTTAWA
L-31
FOX RIVER
MARSEILLES
ILLINOIS RIVER
L-20
L-14
L-28
L-08
SENECA
L-07
L-21
PRES.
CHURCH
LSCS-55
LSCS-34
L-01
L02
L03
LAKE
L-24
L-33
L-34
LSCS
PUMP
L-04
L-27
L05
E 20TH RD.
LSCS-6
GRAND RIDGE
N 20 ST.
L-09
LSCS-8
LASALLE CO. 5
L-13
MINE RD.
VERONA RD.
DIVISION
BERKHARD RD.
PRAIRIE RD.
GARDNER RD.
KINSMAN
L-16
SWELL RD.
RANSOM
L-11, L-30
KERNAN
L-12
L-10
STREATOR
VERMILLION RIVER
LaSalle County Station
Monitoring Locations
L-1 – L-37
- STOP SIGN

LASALLE COUNTY STATION

Figure 5.0-3

TLD Locations

Inner Ring, 16 Badges

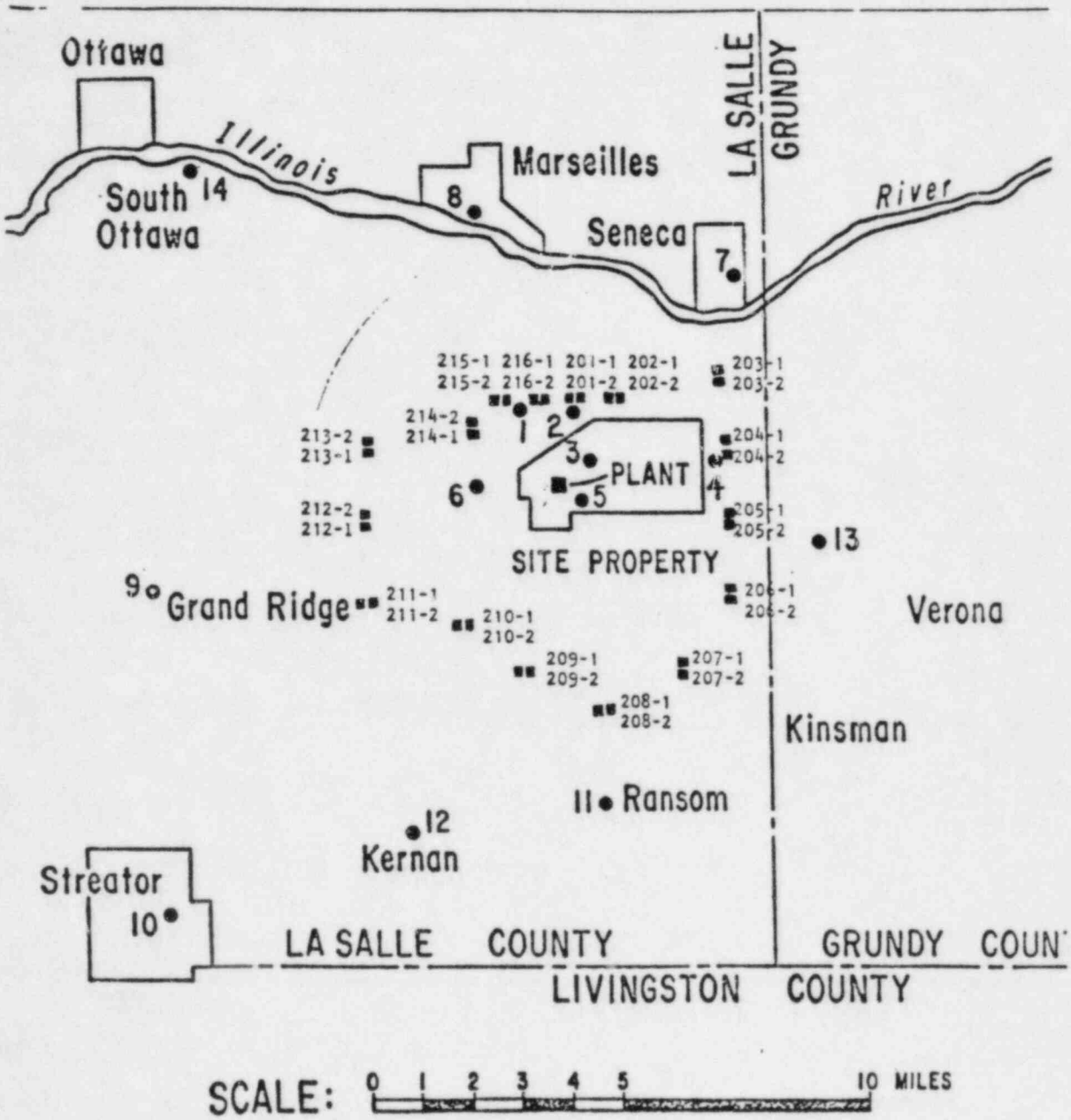


LASALLE COUNTY STATION

Figure 5.0-4

TLD Locations

Outer Ring, 32 Badges



08/27/80 - kak

Table 5.0-1

STANDARD RADIOLOGICAL SAMPLING PROGRAM

LaSalle County Station

1. AIR SAMPLERS

Site Code	Location	Distance (miles)	Direction (0)
L-01	a. Near-site #1	0.5	326
L-02	b. On-site Station #2	0.6	11
L-03	c. On-site Station #3	0.2	56
L-04	d. Near-site #4	1.5	90
L-05	e. On-site Station #5	0.3	145
L-06	f. Near site #6	0.4	270
L-07	g. Seneca	5.2	18
L-08	h. Marseilles	7.0	326
L-09	i. Grand Ridge (C)	10.4	260
L-10	j. Streater (C)	13.5	220
L-11	k. Ransom	6.0	191
L-12	l. Kernan (C)	5.0	214
L-13	m. Route 6 at Gonnam Road	4.3	100
L-14	n. Ottawa (C)	12.0	315

2. TLDs

a. Same as No. 1.

b. Special TLD Samplers

Site Code	Distance (mile)	Direction (0)
L-107 1,2	0.5	146
L-108 1,2	0.4	168
L-109 1,2	0.4	187
L-110 1,2	0.5	204
L-111 1,2	0.5	230
L-112 1,2	0.4	260
L-113 1,2	0.4	280
L-114 1,2	0.5	304
L-201 1,2	2.0	15
L-202 1,2	2.3	33
L-203 1,2	4.0	56
L-204 1,2	3.5	78
L-205 1,2	3.5	102

Table 5.0-1 (continued)

STANDARD RADIOLOGICAL SAMPLING PROGRAM

LaSalle County Station

2. TLDs

b. Special TLD Samplers (continued)

Site Code	Distance (mile)	Direction (0)
L-206 1,2	4.3	123
L-207 1,2	4.5	146
L-208 1,2	4.5	170
L-209 1,2	4.0	192
L-210 1,2	3.3	216
L-211 1,2	4.5	240
L-212 1,2	4.0	261
L-213 1,2	3.8	283
L-214 1,2	2.0	303
L-215 1,2	2.0	330
L-216 1,2	1.5	350

3. MILK

Site Code	Location	Distance (miles)	Direction (0)
L-15	a. Granby Farm*	7.0	E
L-16	b. Lowery Dairy	7.2	120
L-17	c. Norsen Dairy (C)	9.0	337
L-18	d. Sunnyisle Farm (C)	13.2	15

4. FISH

Site Code	Location	Distance (miles)	Direction (0)
L-35	a. Marseilles Pool of Illinois River	6.5	326
L-24	b. LSCS Cooling Lake	At Station	

* Granby Farm replaced Johnson Dairy 4-20-84.

Table 5.0-1 (continued)

STANDARD RADIOLOGICAL SAMPLING PROGRAM

LaSalle County Station

5. SURFACE WATER

Site Code		Location	Distance (miles)	Direction (0)
L-19	a.	Illinois River at Marseilles	6.5	326
L-20	b.	Illinois River at Ottawa	6.5	304
L-21	c.	Illinois River at Seneca (C)	4.0	22
L-22	d.	South Kickapoo Creek	4.7	330
L-23	e.	Illinois Nitrogen Corp.	5.3	337
L-24	f.	LSCS Cooling Lake near Recreation Area	0.3	112

6. COOLING WATER

Site Code		Location	Distance (miles)	Direction (0)
L-25	a.	LSCS Intake Pipe/ River (C)	At Station	
L-26	b.	LSCS Discharge Pipe/ River	At Station	

7. WELL WATER

Site Code		Location	Distance (miles)	Direction (0)
L-27	a.	LSCS On-site Well	At Station	
L-28	b.	Marseilles Well	7.0	326
L-29	c.	Seneca Well (C)	5.1	18
L-30	d.	Ranson Well	6.0	191
L-31	e.	Ottawa Well	12.8	304
L-32	f.	Illinois State Park	6.5	326

Table 5.0-1 (continued)

STANDARD RADIOLOGICAL SAMPLING PROGRAM

LaSalle County Station

8. SEDIMENT

Site Code	Location	Distance (miles)	Direction (0)
L-33	a. Just upstream of cooling lake inlet structure (C)	4.7	354
L-34	b. Just downstream of cooling lake discharge structure	4.8	350

(C) - Control (background) locations are indicated. All other locations are indicator.

Table 5.0-2

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.
		L-2	Onsite No. 2		Gamma Isot	Quarterly	On quarterly composites from each location.
		L-3	Onsite No. 3		Sr-89,90	Quarterly	On quarterly composites from each location.
		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.		Weekly	I-131	Weekly	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	Lowery Dairy	Monthly: Oct to Mar	Gamma Isot	Monthly	
		L-17	Norsen Dairy		Sr-89,90	Monthly	
		L-18	Sunnyisle Farm				
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	Illinois River at Ottawa		Tritium	Quarterly	On quarterly composites from each location.
		L-21	Illinois River at Seneca		Sr-89,90	Quarterly	On quarterly composites from each location.
		L-22	South Kickapoo Creek				
		L-23	Illinois River at Intake to Nitrogen Corp.				
		L-24	LSCS Cooling Lake near Reed, 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.

* Granby Farm replaced Johnson Dairy effective 4-20-84.

Table 5.0-2 (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, Ofrsite	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 5.0-2 (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 5.0-3

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 1st Quarter 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Air Particulates (pCi/m^3)	Gross Beta	180	0.01	0.028 (128/128) (0.011-0.045)	L-09, Grand Ridge 10.4 mi @ 260°	0.031 (13/13) (0.021-0.041)	0.029 (52)/52) (0.015-0.046)	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	180	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	14	3.0	12.9 (10/10) (12.1-14.2)	L-05, On-site #5 0.3 mi @ 145°	14.2 (1/1) -	11.7 (4/4)	0
Milk (pCi/l)	I-131	12	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 (1/3) -	L-15, Johnson Dairy 7.8 mi @ 258°	2.3 (1/3) -	<LLD	0
Precipitation	Gross Beta	11	12.6[b]	37.9 (1/6) -	L-15, Johnson Dairy 7.8 mi @ 258°	37.9 ((1/3) -	14.8 (2/5) (14.3-15.3)	0
	Gamma Spec.	4	20	<LLD	-	-	<LLD	0
	Tritium	4	200	<LLD	-	-	<LLD	0
	Sr-89	4	10	<LLD	-	-	<LLD	0
	Sr-90	4	2	<LLD	-	-	<LLD	0

Table 5.0-3 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Cooling Water (pCi/l)	Gross Beta	26	2.0	7.5 (13/13) (2.3-13.2)	L-26, LSCS Discharge Pipe - River at Station	7.5 (13/13) (2.3-13.2)	4.4 (13/13) (3.0-7.0)	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
Surface Water (pCi/l)	Gross Beta	78	2.0	5.4 (65/65) (2.8-13.1)	L-21, Illinois River at Seneca 4.0 mi @ 22°	6.1 (13/13) (3.8-15.6)	6.1 (13/13) (3.8-15.6)	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

Table 5.0-3 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Well Water (pCi/l)	Gross Beta	8	2.0	21.0 (7/7) (12.2-29.8)	L-31, Illinois State Park, 6.5 mi @ 326°	27.6 (1/1) -	16.5 (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	11	1.0	8.9 (5/5) (3.8-11.8)	L-18, Sunny Isle Farm 13.2 mi @ 15°	13.8 (3/3) (2.8-32.9)	11.3 (6/6) (2.6-32.9)	0
	Gamma Spec.	11						
	Cs-134		0.1	<LLD	-	-	<LLD	0
	Cs-137		0.1	<LLD	-	-	<LLD	0
	Other Gammas		0.2	<LLD	-	-	<LLD	0
	Sr-89	11	1.0	<LLD	-	-	<LLD	0
	Sr-90	11	1.0	<LLD	-	-	<LLD	0

[a] Mean and range based on detectable measurements only. Fraction indicated in parenthesis.
[b] LLD value dependent on volume of sample available for analysis.

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 2nd Quarter 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean Location	Location with Highest Quarterly Mean Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	178	0.01	0.018 (121/126) (0.010-0.030)	L-02, Onsite #2 0.6 mi @ 11°	0.020 (13/13) (0.012-0.028)	0.020 (48/52) (0.010-0.031)	0
					L-03, Onsite #3 0.2 mi @ 56°	0.020 (13/13) (0.011-0.030)		
					L-09, Grand Ridge 10.4 mi @ 260°	0.020 (13/13) (0.011-0.028)		
					L-10, Streator 13.5 mi @ 220°	0.020 (13/13) (0.010-0.027)		
	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	178	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	14	3.0	12.3 (10/10) (10.8-14.1)	L-01, Near Site #1 0.5 mi @ 326°	14.1 (1/1) -	10.2 (4/4) (7.8-12.3)	0
Milk (pCi/l)	I-131	40	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	<LLD	-	-	<LLD	0

Table 5.0-4 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Precipitation	Gross Beta	10	12.2[b]	19.6 (2/6) (14.6-24.7)	L-17, Norsen Dairy 9.0 mi @ 337°	42.1 ((1/3) -	31.0 (2/6) (20.0-42.1)	0
	Gamma Spec.	4	20	<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	1.0	9.2 (13/13) (3.4-14.9)	L-26, LSCS Discharge Pipe - River at Station	9.2 (13/13) (3.4-14.9)	5.5 (13/13) (2.2-13.9)	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 5.0-4 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean Location	Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Surface Water (pCi/l)	Gross Beta	78	2.0	4.9 (65/65) (2.6-8.81)	L-19, Illinois River at Marseilles 6.5 mi @ 325°	5.4 (13/13) (2.6-8.8)	5.3 (13/13) (3.8-7.0)	0
	Gamma Spec.	18			L-24, LSCS Cooling Lake near Recreation Area, 0.3 mi @ 112°	5.4 (13/13) (3.5-7.1)		
	Cs-134		10	<LLD	-	-	<LLD	0
	Cs-137		10	<LLD	-	-	<LLD	0
	Other Gammas		20	<LLD	-	-	<LLD	0
	Tritium	6	200	240 (1/5)	L-24, LSCS Cooling Lake near Recreation Area, 0.3 mi @ 112°	240 (1/1)	<LLD	0
	Sr-89	6	10	<LLD	-	-	<LLD	0
	Sr-90	6	2	<LLD	-	-	<LLD	0
Well Water (pCi/l)	Gross Beta	8	2.0	19.8 (7/7) (10.4-31.7)	L-30, Hanson Well 6.0 mi @ 190°	31.7 (1/1) -	18.0 (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

Table 5.0-4 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Fish (pCi/g wet)	Gross Beta	13	1.0	3.5 (13/13) (1.9-5.5)	L-35, Marseilles Pool of Illinois River 6.5 mi @ 326°	3.8 (6/6) (2.9-4.7)	None	0
	Gamma Spec.	13						
	Cs-134		0.1	<LLD	-	-	None	0
	Cs-137		0.1	<LLD	-	-	None	0
	Other Gammas		0.2	<LLD	-	-	None	0
	Sr-89	13	0.1	<LLD	-	-	None	0
	Sr-90	13	0.1	<LLD	-	-	None	0
Cattlefeed & Grass (pCi/g wet)	Gross Beta	4	1.0	7.8 (2/2) (7.5-8.2)	L-18, Sunny Isle Farm 13.2 mi @ 15°	17.3 (1/1) -	17.2 (2/2) (17.1-17.3)	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

Table 5.0-4 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
				Location	Mean Range		
Aquatic Vegetation (pCi/g wet)	Gross Beta 3	1.0	2.8 ((2/2) (2.5-3.2)	L-33, Upstream of Cooling Lake Inlet Structure 4.7 mi @ 354°	3.5 (1/1) -	3.5 (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	1.0	19.8 (2/2) (14.2-15.2)	L-33, Upstream of Cooling Lake Inlet Structure 4.7 mi @ 354°	29.5 (1/1) -	29.5 (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 parentheses.
[b] LLD value dependent on volume of sample available for analysis.

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 3rd Quarter 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Air Particulates (pCi/m^3)	Gross Beta	174	0.01	0.024 (119/122) (0.010-0.041)	L-07, Seneca 5.2 mi @ 18°	0.030 (10/13) (0.018-0.041)	0.025 (52/52) (0.018-0.037)	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	174	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	14	3.0	12.4 (10/10) (5.0-14.1)	L-03, On-site #3 0.2 mi @ 56°	14.6 (1/1) -	11.4 (4/4) (9.2-12.8)	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	<LLD	-	-	<LLD	0
Precipitation	Gross Beta	11	12.9[b]	27.9 (3/6) (13.4-42.3)	L-18, Sunny Isle Farm 13.2 mi @ 15°	51.3 (2/3) (48.4-54.2)	43.4 (4/6) (13.8-57.0)	0
	Gamma Spec.	4	20	<LLD	-	-	<LLD	0
	Tritium	4	200	<LLD	-	-	<LLD	0
	Sr-89	4	10	<LLD	-	-	<LLD	0
	Sr-90	4	2	<LLD	-	-	<LLD	0

Table 5.0-5 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean		Control Locations Mean[a] Range	Number of Non-routine Results
					Location	Mean Range		
Cooling Water (pCi/l)	Gross Beta	26	1.0	7.6 (13/13) (5.5-15.1)	L-26, LSCS Discharge Pipe - River at Station	7.6 (13/13) (5.5-15.1)	3.8 (13/13) (2.2-8.9)	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
Surface Water (pCi/l)	Gross Beta	78	1.0	4.9 (65/65) (2.9-6.6)	L-24, Recreational Area Cooling Lake 0.3 mi @ 112°	5.2 (13/13) (4.5-6.3)	5.1 (13/13) (3.9-7.7)	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

Table 5.0-5 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Well Water (pCi/l)	Gross Beta	8	1.0	18.5 (7/7) (14.4-24.5)	L-32, Illinois State Park Well 6.5 mi @ 326°	24.5 (1/1) -	16.5 (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	1.0	2.6 (13/14) (1.3-3.8)	L-35, Marseilles Pool of Illinois River 6.5 mi @ 326°	2.9 (7/7) (2.3-3.8)	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
Cattlefeed & Grass (pCi/g wet)	Gross Beta	4	1.0	10.6 (2/2) (10.6-10.7)	L-18, Sunny Isle Farm 13.2 mi @ 15°	12.2 (1/1) -	11.2 (2/2) (10.3-12.2)	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

Table 5.0-5 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Aquatic Vegetation (pCi/g wet)	Gross Beta	3	1.0	3.3 (2/2) (2.3-4.4)	L-24, Cooling Pond 0.3 mi @ 112°	4.4 (1/1) -	2.9 (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
Bottom Sediments (pCi/g dry)	Gross Beta	3	1.0	23.8 (2/2) (19.3-28.2)	L-33, Upstream of Cooling Lake Inlet Structure 4.7 mi @ 354°	30.8 (1/1) -	30.8 (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	Gross Beta	8	1.0	2.5 (8/8) (1.1-5.5)	L-37, Farm B	2.8 (4/4) (1.1-5.5)	None	0
	Gamma Spec.	8						
	Cs-134		0.1	<LLD	-	-	None	0
	Cs-137		0.1	<LLD	-	-	None	0
	Other Gammas		0.2	<LLD	-	-	None	0
	Sr-89	8	1.0	<LLD	-	-	None	0
	Sr-90	8	1.0	<LLD	-	-	None	0
	I-131	2	0.026	<LLD	-	-	None	0

[a] Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[b] LLD value dependent on volume of sample available for analysis.

Table 5.0-6

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean Location	Location with Highest Quarterly Mean Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Air Particulates (pCi/m^3)	Gross Beta	182	0.01	0.031 (124/124) (0.015-0.053)	L-07, Seneca 5.2 mi @ 18°	0.035 (13/13) (0.022-0.052)	0.026 (52/52) (0.019-0.056)	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	182	0.10	<LLD	-	-	<LLD	0
Gamma Background (TLDs) (mR/Qtr.)	Gamma Dose	14	3.0	14.2 (10/10) (12.1-20.0)	L-01, Near Site #2 0.5 mi @ 326°	20.0 (1/1) -	11.8 (4/4) (8.9-12.4)	0
Milk (pCi/l)	I-131	24	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	3.2 (1/2) -	L-16, Lowery Dairy 7.2 mi @ 120°	3.2 (1/1) -	2.3 (1/2)	0
Precipitation	Gross Beta	9	14.1[b]	23.0 (3/5) (15.6-35.6)	L-15, Johnson Dairy 7.8 mi @ 258°	35.6 (1/3) -	43.4 (4/6)	0
	Gamma Spec.	4	20	<LLD	-	-	<LLD	0
	Tritium	4	200	<LLD	-	-	<LLD	0
	Sr-89	4	10	<LLD	-	-	<LLD	0
	Sr-90	4	2	<LLD	-	-	<LLD	0

Table 5.0-6 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Cooling Water (pCi/l)	Gross Beta	26	1.0	6.7 (13/13) (4.0-13.0)	L-26, LSCS Discharge Pipe - River at Station	6.7 (13/13) (4.0-13.0)	5.4 (13/13) (3.2-16.8)	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
Surface Water (pCi/l)	Gross Beta	78	1.0	5.7 (65/65) (3.2-18.2)	L-24, LSCS Cooling Lake at Station 0.3 mi @ 112°	6.4 (13/13) (5.2-8.9)	5.5 (13/13) (3.7-6.4)	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

Table 5.0-6 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses		LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Well Water (pCi/l)	Gross Beta	8	2.0	22.7 (7/7) (12.2-28.6)	L-27, LSCS On-site Well at Station	27.2 (1/1) -	14.4 (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	8	1.0	3.2 (8/8) (2.6-5.1)	L-24, Cooling Lake near Recreation Area at Station 0.3 mi @ 112°	3.4 (4/4) (2.6-5.1)	None	0
	Gamma Spec.	8						
	Cs-134		0.1	<LLD	-	-	None	0
	Cs-137		0.1	<LLD	-	-	None	0
	Other Gammas		0.2	<LLD	-	-	None	0
	Sr-89	8	0.1	<LLD	-	-	None	0
	Sr-90	8	0.1	<LLD	-	-	None	0
Cattlefeed & Grass (pCi/g wet)	Gross Beta	4	1.0	7.6 (2/2) (7.3-8.0)	L-18, Sunnyisle Farm 13.2 mi @ 15°	8.9 (1/1) -	7.2 (2/2) (5.4-8.9)	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

Table 5.0-6 (continued)

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 1984

Sample Type (Units)	Type and Number of Analyses	LLD	Indicator Locations Mean[a] Range	Location with Highest Quarterly Mean: Location	Location with Highest Quarterly Mean: Mean Range	Control Locations Mean[a] Range	Number of Non-routine Results
Aquatic Vegetation (pCi/g wet)	Gross Beta 3	1.0	3.3 (2/2) (3.0-3.6)	L-24, LSCS Cooling Lake near Recreation Area at Station 0.3 mi @ 112°	3.6 (1/1) -	3.0 (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 2	1.0	26.9 (1/1) -	L-34, Downstream of Cooling Lake 4.8 mi @ 350°	26.9 (1/1) -	26.4 (1/1) -	0
	Gamma Spec. 2						
	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 parentheses.
[b] LLD value depends on volume of sample available for analysis.

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:		12-31-83	3-31-84	6-29-84	9-29-84
Date Removed:		3-31-84	6-29-84	9-29-84	12-28-84
Days in the Field:		91	90	92	90
Location		Average mR/Qtr.			
On-Site and Near-Site Indicator Locations					
L-01	Near Site No. 1	12.1±1.2	14.1±1.1	13.6±0.6	20.0±2.0
L-02	On-Site No. 2	12.4±0.6	10.8±2.3	5.0±1.1	17.2±1.8
L-03	On-Site No. 3	13.4±1.4	12.1±2.0	14.6±1.7	16.9±0.8
L-04	Near-Site No. 4	13.4±0.8	12.1±1.0	13.4±1.1	14.9±1.5
L-05	On-Site No. 5	14.2±1.0	12.6±2.4	14.1±1.0	14.7±1.5
L-06	Near-Site No. 6	13.3±0.6	13.3±1.0	12.4±1.0	15.1±1.5
	Mean ± s.d.	13.1±0.8	12.5±1.1	12.2±3.6	16.5±2.0
Off-Site Indicator Locations					
L-07	Seneca	12.3±0.7	12.0±1.0	13.6±1.3	12.1±1.5
L-08	Marseilles	13.4±0.6	12.4±1.0	13.4±1.7	12.1±0.8
L-11	Ransom	11.1±0.7	11.1±1.4	11.1±1.2	11.5±1.5
L-13	Rt. 6/Gonnam Road	13.3±1.4	12.7±0.8	12.8±1.1	11.7±0.8
	Mean ± s.d.	12.5±1.1	12.1±0.7	12.7±1.1	11.8±0.3
Background Locations					
L-09	Grand Ridge	11.7±0.6	11.1±1.0	12.2±0.9	12.4±1.3
L-10	Streator	11.2±0.6	9.6±2.0	9.2±0.9	8.9±1.1
L-12	Kernan	10.8±0.6	7.8±2.3	11.3±0.9	12.0±1.3
L-14	Ottawa	13.4±0.5	12.3±1.6	12.8±1.5	14.1±1.4
	Mean ± s.d.	11.7±1.1	10.2±1.9	11.4±1.6	11.8±2.2

Table 5.1-1 (continued)

Gamma Radiation, as measured by TLDs

Special Program

Inner Ring, Near Site Boundary, Indicator Locations

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date Placed:	12-31-83	3-31-84	6-29-84	9-29-84
Date Removed:	3-31-84	6-29-84	9-29-84	12-28-84
Days in the Field:	91	90	92	90
Location	Average mR/Qtr.			
L-107-1	12.6±0.7	13.1±1.4	17.8±2.0	12.6±0.4
L-107-2	12.8±0.6	14.4±1.2	18.4±1.8	17.3±2.1
L-108-1	13.4±1.4	13.7±1.0	19.1±3.5	15.5±1.9
L-108-2	14.2±2.6	13.6±1.1	15.1±0.8	15.1±0.6
L-109-1	14.8±2.3	13.2±1.2	16.1±1.4	20.2±2.0
L-109-2	15.0±2.2	14.1±1.2	17.8±0.9	15.3±5.8
L-110-1	13.0±0.8	13.6±1.3	15.0±1.2	18.9±1.0
L-110-2	13.1±0.9	13.8±2.3	16.6±1.8	15.9±4.4
L-111-1	15.0±1.0	14.0±1.2	14.8±1.7	12.2±1.3
L-111-2	13.5±0.8	13.6±1.1	18.4±1.5	16.9±1.3
L-112-1	15.3±0.6	14.8±0.8	18.1±1.5	20.1±0.9
L-112-2	14.2±0.7	14.4±1.2	19.1±1.8	16.1±1.3
L-113-1	14.5±0.8	13.8±2.0	13.6±1.5	20.5±1.5
L-113-2	14.4±0.8	15.3±0.9	12.6±1.4	17.4±2.6
L-114-1	14.8±1.2	14.5±0.9	12.4±1.5	15.3±1.5
L-114-2	15.4±1.2	14.3±1.3	14.6±1.8	17.4±1.0
Mean ± s.d.	14.1±0.9	14.0±0.6	16.2±2.3	16.7±2.5

Table 5.1-1 (continued)

Gamma Radiation, as measured by TLDs

Special Program

Outer Ring, Near 5 Miles Radius, Indicator Locations

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date Placed:	12-31-83, 1-29-84*	3-31-84	6-29-84	9-29-84
Date Removed:	3-31-84	6-29-84	9-29-84	12-28-84
Days in the Field:	91, 62*	90	92	90
Location	Average mR/Qtr.			
L-201-1	15.0±1.0	13.7±1.1	13.9±1.3	24.8±3.4
L-201-2	14.5±0.5	14.7±0.9	14.3±1.5	17.1±2.5
L-202-1	13.5±0.5	14.4±0.9	12.7±1.6	17.6±1.1
L-202-2	13.9±0.9	13.8±1.1	13.2±1.4	14.3±1.0
L-203-1	14.4±1.2	13.4±1.1	16.1±1.2	17.9±2.0
L-203-2	13.6±1.0	14.0±1.4	11.7±1.6	16.8±2.4
L-204-1	15.0±2.7	14.0±1.9	11.2±1.3	14.3±0.6
L-204-2	13.3±0.6	13.1±2.2	12.8±1.0	16.5±1.6
L-205-1	15.0±0.8	14.4±1.2	12.4±1.3	19.7±2.1
L-205-2	13.9±0.9	14.4±1.1	11.6±1.0	16.4±0.9
L-206-1	14.3±1.3	14.3±1.0	12.8±1.1	16.9±1.0
L-206-2	14.0±1.0	13.6±2.7	10.9±0.9	17.0±1.3
L-207-1	13.6±0.6	14.7±1.1	11.4±1.2	19.1±0.9
L-207-2	14.3±0.8	14.6±1.1	12.3±1.1	14.6±1.1
L-208-1	14.1±0.7	15.3±1.0	13.0±0.9	15.5±1.3
L-208-2	13.1±1.1	13.4±3.0	13.4±1.1	17.1±0.9
L-209-1	14.5±1.0	15.4±1.0	14.9±1.1	18.4±1.4
L-209-2	14.3±0.7	14.3±0.7	14.4±1.5	16.7±0.6
L-210-1	16.5±3.8	14.6±1.2	15.8±0.8	15.9±1.6
L-210-2	14.6±1.1	15.5±1.2	13.9±0.7	18.6±1.6
L-211-1	13.7±1.3	14.4±0.7	16.3±1.6	15.9±1.4
L-211-2	13.9±1.3	14.4±1.9	12.2±1.3	15.4±1.6
L-212-1	14.2±0.8	15.2±0.9	15.2±0.8	16.3±1.1
L-212-2	12.5±0.6	13.0±2.5	12.5±1.7	16.4±4.0
L-213-1	13.7±0.9	14.5±1.5	14.5±1.3	18.9±0.9
L-213-2	13.6±1.0	15.5±1.5	13.6±1.3	18.3±1.7
L-214-1	14.6±1.7	14.9±1.3	13.2±1.2	17.2±1.1
L-214-2	13.4±1.9	15.4±0.9	12.9±2.5	17.1±0.9
L-215-1	15.3±3.5	14.4±1.1	13.9±0.9	19.1±2.0
L-215-2	15.0±3.6	15.0±0.8	13.6±1.3	12.9±5.5
L-216-1	14.1±1.3	15.0±1.5	13.4±1.6	18.5±2.5
L-216-2	14.1±2.0	13.8±1.0	13.6±0.8	18.7±3.2
Edward-1*	18.1±3.5	11.6±2.6	20.4±1.2	16.3±1.1
Edward-2*	16.5±1.3	13.6±1.2	18.1±1.7	16.5±1.7
Ransom-1*	15.6±2.0	13.5±1.0	24.3±2.1	16.4±0.7
Ransom-2*	15.2±1.3	14.4±0.8	16.3±1.4	16.1±1.2
Mean ± s.d.	14.4±1.1	14.3±0.8	14.1±2.6	17.1±2.0

APPENDIX II

METEOROLOGICAL DATA

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	1	0	0	0	0	1
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	1	0	0	0	0	1

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 - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	2	0	0	0	0	2
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	2	0	0	0	0	2

URS OF CALM IN THIS STABILITY CLASS - 0
RS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 0

URS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	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	1	0	0	0	0	1
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	1	0	0	0	0	1

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 - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	7	1	18	14	19	60
NNE	1	15	8	3	11	17	55
NE	1	11	16	35	13	6	82
ENE	2	2	13	16	25	6	64
E	1	3	4	13	34	19	74
ESE	0	1	1	8	13	5	28
SE	0	5	8	11	4	0	28
SSE	1	4	6	4	1	0	16
S	2	3	5	2	11	9	32
SSW	0	1	4	7	11	5	28
SW	1	5	4	8	9	6	33
WSW	2	8	4	11	14	5	44
W	1	4	7	11	6	6	35
WNW	1	2	9	27	21	28	88
NW	0	1	3	25	15	18	62
NNW	0	2	5	37	23	22	89
VARIABLE	0	0	0	0	0	0	0
TOTAL	14	74	98	236	225	171	818

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 - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	0	2	15	8	8	34
NNE	1	0	5	5	3	7	21
NE	1	4	6	4	11	0	26
ENE	1	10	4	10	5	3	33
E	0	3	10	13	21	9	56
ESE	1	1	3	13	13	18	49
SE	2	1	6	9	4	10	32
SSE	0	1	2	3	6	8	20
S	1	2	2	14	13	16	48
SSW	1	3	7	12	8	34	65
SW	1	2	13	20	8	22	66
WSW	0	3	7	20	10	16	56
W	0	3	5	9	11	37	65
WNW	0	3	15	28	38	61	145
NW	0	7	12	30	24	16	89
NNW	1	1	10	17	12	13	54
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	44	109	222	195	278	859

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 19

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	1	2	0	0	5
NNE	2	2	4	1	0	0	9
NE	1	0	3	0	0	0	4
ENE	1	1	0	0	1	0	3
E	0	1	1	0	0	0	2
ESE	0	0	1	2	3	2	8
SE	0	2	3	2	6	3	16
SSE	0	0	10	7	3	10	30
S	0	3	4	10	8	9	34
SSW	0	1	4	3	8	20	36
SW	0	5	3	10	7	20	45
WSW	1	2	3	4	5	3	18
W	0	0	7	8	6	9	30
WNW	0	0	5	12	11	13	41
NW	1	1	7	11	16	4	40
NNW	0	1	0	3	5	0	9
VARIABLE	0	0	0	0	0	0	0
TOTAL	6	21	56	75	79	93	330

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 15

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JANUARY - MARCH 1984
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	1	0	2	3	6
SSE	0	0	0	5	8	13	26
S	0	0	3	1	6	5	15
SSW	0	0	2	5	4	17	28
SW	0	1	0	4	2	20	27
WSW	0	0	0	1	3	5	9
W	1	0	0	2	1	0	4
WNW	0	0	0	0	5	2	7
NW	0	0	0	2	0	0	2
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	1	1	6	20	31	65	124

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 3

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 4

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - APRIL - JUNE 1984
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	3	0	0	0	3
NE	0	0	2	0	0	0	2
ENE	0	0	0	1	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	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	1	1
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	1	0	1	7

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 1984
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	1	0	0	0	1
NE	0	0	6	2	0	0	8
ENE	0	0	4	0	0	0	4
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	1	1
SSW	0	0	1	0	0	1	2
SW	0	0	1	0	2	3	6
WSW	0	0	0	0	4	0	4
W	0	0	0	0	0	0	0
WNW	0	0	0	0	2	2	4
NW	0	0	1	4	1	2	8
NNW	0	0	0	2	3	0	5
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	14	8	12	9	43

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 - APRIL - JUNE 1984
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	2	0	0	0	2
NNE	0	0	1	0	0	0	1
NE	0	1	12	1	0	0	14
ENE	0	0	3	1	0	1	5
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	1	0	0	2
SSE	0	0	0	0	0	0	0
S	0	1	1	0	0	3	5
SSW	0	0	0	1	3	6	10
SW	0	0	2	3	0	1	6
WSW	0	1	0	0	3	0	4
W	0	0	0	0	1	0	1
WNW	0	0	2	0	1	1	4
NW	0	1	6	1	6	0	14
NNW	0	0	1	2	0	0	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	4	31	10	14	12	71

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 3

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - APRIL - JUNE 1984
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	12	9	13	20	24	79
NNE	3	6	10	17	7	7	50
NE	0	6	27	18	6	7	64
ENE	1	15	15	31	22	17	101
E	0	6	9	25	23	19	82
ESE	1	1	7	14	11	5	39
SE	1	1	7	6	0	0	15
SSE	1	1	9	3	0	3	17
S	0	4	6	15	6	24	55
SSW	0	3	3	12	9	30	57
SW	0	3	1	21	13	13	51
WSW	0	3	3	8	26	7	47
W	1	2	9	25	16	13	66
WNW	0	6	7	23	18	22	76
NW	0	2	9	23	38	10	82
NNW	0	2	18	17	22	12	71
VARIABLE	0	0	0	0	0	0	0
TOTAL	9	73	149	271	237	213	952

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 10

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - APRIL - JUNE 1984
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	1	5	23	13	1	43
NNE	0	7	12	9	6	1	35
NE	2	4	12	27	1	0	46
ENE	1	3	19	28	21	16	88
E	0	1	5	18	26	38	88
ESE	0	1	5	9	11	17	43
SE	1	2	0	8	3	11	25
SSE	0	0	0	4	1	6	11
S	0	1	1	4	15	46	67
SSW	1	2	5	10	19	42	79
SW	0	2	9	10	14	17	52
WSW	0	0	4	11	9	6	30
W	0	7	6	9	2	6	30
WNW	0	2	6	11	17	15	51
NW	1	4	10	16	11	11	53
NNW	0	3	3	12	12	4	34
VARIABLE	0	0	0	0	0	0	0
TOTAL	6	40	102	209	181	237	775

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 15

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - APRIL - JUNE 1984
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	1	0	0	5	2	0	8
NNE	0	0	1	4	0	0	5
NE	0	1	1	0	0	0	2
ENE	0	0	1	2	1	0	4
E	0	0	0	3	0	4	7
ESE	0	0	1	0	6	3	10
SE	0	0	0	0	5	1	6
SSE	0	1	1	0	1	0	3
S	0	0	4	2	7	11	24
SSW	0	1	4	3	6	13	27
SW	0	2	4	3	2	13	24
WSW	0	0	1	3	10	9	23
W	0	0	4	4	5	7	20
WNW	1	2	6	8	3	4	24
NW	0	2	1	9	3	2	17
NNW	0	2	3	8	4	0	17
VARIABLE	0	0	0	0	0	0	0
TOTAL	2	11	32	54	55	67	221

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 3

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - APRIL - JUNE 1984
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	2	1	1	4
SSE	0	0	0	4	1	5	10
S	0	0	0	3	2	5	10
SSW	0	0	1	5	3	0	9
SW	0	0	0	1	0	1	2
WSW	0	0	0	0	3	0	3
W	0	0	0	1	0	1	2
WNW	0	0	4	0	1	11	16
NW	0	2	2	1	10	1	16
NNW	0	2	0	6	3	0	11
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	4	7	23	24	25	83

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 1984
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	1	0	0	0	1
NNE	0	0	2	0	0	0	2
NE	0	0	2	0	0	0	2
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	1	0	0	0	0	1
SSE	0	1	0	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	5	7	5	0	17
SW	0	1	1	0	2	0	4
WSW	0	0	0	0	0	0	0
W	0	1	0	0	0	0	1
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	4	11	7	7	0	29

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

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	5	4	2	0	0	11
NNE	0	4	9	1	0	0	14
NE	0	3	5	1	0	0	9
ENE	0	0	2	1	0	0	3
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	1	4	0	0	0	0	5
SSE	0	6	4	1	0	0	11
S	1	6	8	6	2	1	24
SSW	0	2	4	4	2	3	15
SW	0	4	4	8	2	0	18
WSW	0	2	2	4	1	0	9
W	0	4	3	0	1	0	8
WNW	0	1	1	3	3	1	9
NW	0	1	0	4	5	0	10
NNW	0	0	3	5	0	0	8
VARIABLE	0	0	0	0	0	0	0
TOTAL	2	42	49	40	16	5	154

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 12

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAP POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	5	6	2	0	0	13
NNE	0	6	7	0	0	0	13
NE	0	4	3	0	0	0	7
ENE	0	3	7	6	0	0	16
E	0	2	4	0	0	0	6
ESE	0	2	2	0	0	0	4
SE	1	5	3	0	1	0	10
SSE	2	2	8	2	3	0	17
S	0	4	4	5	3	1	17
SSW	2	0	4	1	3	2	12
SW	0	4	7	8	0	0	19
WSW	0	3	6	4	1	0	14
W	0	3	5	9	0	0	17
WNW	0	3	3	7	1	0	14
NW	0	3	3	7	3	1	17
NNW	0	5	3	3	1	0	12
VARIABLE	0	0	0	0	0	0	0
TOTAL	5	54	75	54	16	4	208

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 - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	18	15	15	7	0	57
NNE	2	17	25	5	0	0	49
NE	1	13	16	3	0	0	33
ENE	2	9	3	7	2	0	23
E	1	5	2	4	0	0	12
ESE	3	6	5	1	0	0	15
SE	2	7	4	5	6	3	27
SSE	2	4	5	4	5	4	24
S	1	2	11	18	19	14	65
SSW	0	4	7	8	10	4	33
SW	1	3	12	13	7	0	36
WSW	2	6	13	10	4	1	36
W	0	6	7	7	3	0	23
WNW	1	9	14	11	10	6	51
NW	2	5	25	11	8	8	59
NNW	0	17	23	36	20	5	101
VARIABLE	0	0	0	0	0	0	0
TOTAL	22	131	187	158	101	45	644

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 28

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	11	11	3	0	28
NNE	2	10	20	7	1	0	40
NE	2	8	11	34	1	0	56
ENE	0	4	15	17	1	0	37
E	1	7	8	10	10	3	39
ESE	2	5	6	6	3	2	24
SE	4	2	7	7	1	5	26
SSE	1	2	3	6	9	11	32
S	1	1	3	15	17	28	65
SSW	1	0	6	6	10	15	38
SW	1	6	5	7	15	13	47
WSW	1	3	2	5	2	2	15
W	0	3	4	7	7	1	22
WNW	4	4	8	6	1	3	26
NW	0	3	5	4	2	2	16
NNW	4	1	5	8	13	1	32
VARIABLE	0	0	0	0	0	0	0
TOTAL	24	62	119	156	96	86	543

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 22

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	1	4	0	0	5
NNE	0	5	5	0	0	0	10
NE	0	1	12	1	0	0	14
ENE	0	2	3	1	0	0	6
E	0	0	2	10	3	7	22
ESE	1	3	2	6	8	6	26
SE	0	2	5	5	3	1	16
SSE	2	4	11	2	8	2	29
S	0	10	8	17	18	9	62
SSW	1	10	12	6	9	15	53
SW	0	8	7	8	20	16	59
WSW	1	4	8	7	3	6	29
W	1	1	11	6	2	1	22
WNW	0	3	2	3	8	2	18
NW	0	1	4	2	1	1	9
NNW	0	0	3	2	2	0	7
VARIABLE	0	0	0	0	0	0	0
TOTAL	6	54	96	80	85	66	387

HOURS OF CALM IN THIS STABILITY CLASS - 0
HOURS OF MISSING WIND MEASUREMENTS IN THIS STABILITY CLASS - 12

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - JULY - SEPTEMBER 1984
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	2	1	2	0	5
ESE	0	0	0	1	5	4	10
SE	0	0	1	5	6	9	21
SSE	0	1	0	3	9	8	21
S	0	0	4	7	11	8	30
SSW	0	0	1	2	5	0	8
SW	0	0	3	8	1	0	12
WSW	0	0	2	0	0	6	8
W	0	0	5	4	1	3	13
WNW	0	1	2	7	1	3	14
NW	0	0	1	2	4	0	7
NNW	0	0	0	0	2	0	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	2	21	40	47	41	151

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 - 0

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	1	0	1
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	1	0	1

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 - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	0	0	0	0
SSW	0	0	0	3	5	4	12
SW	0	0	0	1	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	1	0	1
NW	0	0	0	0	0	5	5
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	4	6	9	19

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

HOURS OF MISSING STABILITY MEASUREMENTS IN ALL STABILITY CLASSES - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	1	0	0	0	0	1
NNE	0	1	0	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	4	2	1	7
SW	0	1	0	0	0	1	2
WSW	0	0	0	1	0	0	1
W	0	0	0	1	1	0	2
WNW	0	0	0	0	1	3	4
NW	0	0	0	2	3	2	7
NNW	0	0	0	0	1	1	2
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	4	0	8	8	8	28

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 - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	0	7	6	18	13	3	47
NNE	2	8	14	16	8	3	51
NE	1	5	11	26	10	2	55
ENE	0	4	7	15	3	6	35
E	0	8	11	22	8	8	57
ESE	2	7	8	15	22	5	59
SE	3	4	7	18	10	9	51
SSE	1	1	6	10	20	18	56
S	1	13	8	10	4	24	60
SSW	1	9	5	10	19	25	69
SW	2	3	9	7	5	6	32
WSW	3	6	8	7	13	13	50
W	2	4	7	12	12	38	75
WNW	0	7	14	25	26	46	118
NW	1	7	20	27	29	16	100
NNW	1	8	10	31	11	13	74
VARIABLE	0	0	0	0	0	0	0
TOTAL	20	101	151	269	213	235	989

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 - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	3	1	5	11	12	0	32
NNE	1	2	5	6	3	1	18
NE	0	2	5	1	1	0	9
ENE	3	5	6	4	4	0	22
E	0	2	7	19	15	2	45
ESE	0	1	7	10	21	18	57
SE	3	5	5	16	20	30	79
SSE	0	1	9	15	32	59	116
S	1	2	9	11	12	65	100
SSW	0	2	7	8	14	70	101
SW	0	2	4	14	12	27	59
WSW	0	4	6	3	1	14	28
W	1	1	8	11	11	17	49
WNW	0	6	5	8	14	1	34
NW	0	4	10	7	3	0	24
NNW	1	7	5	4	3	1	21
VARIABLE	0	0	0	0	0	0	0
TOTAL	13	47	103	148	178	305	794

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 - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	1	0	0	0	1	0	2
NNE	0	0	0	0	0	0	0
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	3	0	1	4	3	11
ESE	6	0	5	9	6	4	30
SE	2	2	4	8	6	9	31
SSE	1	0	0	7	7	13	28
S	0	1	1	1	7	9	19
SSW	0	0	1	2	8	13	24
SW	0	0	3	7	7	16	33
WSW	0	2	2	1	3	12	20
W	0	0	2	2	6	2	12
WNW	0	0	4	9	8	4	25
NW	0	4	3	5	3	2	17
NNW	1	2	0	0	1	0	4
VARIABLE	0	0	0	0	0	0	0
TOTAL	12	14	25	52	67	87	257

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 - 19

LASALLE NUCLEAR POWER STATION
PERIOD OF RECORD - OCTOBER - DECEMBER 1984
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	2	0	2	2	6
SE	0	0	1	1	6	2	10
SSE	0	0	2	1	3	2	8
S	0	1	2	3	0	3	9
SSW	0	0	3	1	3	13	20
SW	0	1	3	12	4	5	25
WSW	0	0	2	4	3	3	12
W	0	0	0	2	4	1	7
WNW	0	0	0	2	0	0	2
NW	0	0	1	0	0	0	1
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	2	16	26	25	31	100

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 - 19