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Exelon Nuclear

RA08-034

10 CFR 50 Appendix I

May 15, 2008

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

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

Subject: 2007 Annual Radiological Environmental Operating Report

Enclosed is the Exelon Generation Company, LLC, LaSalle County Station 2007 Annual Radiological Environmental Operating Report, submitted in accordance with Technical Specification 5.6.2, "Annual Radiological Environmental Operating Report." This report contains the results of the Radiological Environmental and Meteorological Monitoring Programs. This report is enclosed as an Attachment.

In addition, this Attachment contains the results of groundwater monitoring conducted in accordance with Exelon's Radiological Groundwater Protection Program, which is a voluntary program implemented in 2006. This information is being reported in accordance with a nuclear industry initiative.

Should you have any questions concerning this letter, please contact Mr. Terrence Simpkin, Regulatory Assurance Manager, at (815) 415-2800.

Respectfully,

Daniel J. Enright
Site Vice President
LaSalle County Station

Attachment

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

IE25
NRR

Docket No: 50-373
50-374

LASALLE COUNTY STATION
UNITS 1 and 2

Annual Radiological
Environmental Operating Report

1 January Through 31 December 2007

Prepared By

Teledyne Brown Engineering
Environmental Services

Exelon SM
Nuclear

LaSalle County Station
Marseilles, IL 61341

May 2008

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I. Summary and Conclusions

This report on the Radiological Environmental Monitoring Program conducted for the LaSalle County Station (LCS) by Exelon covers the period 1 January 2007 through 31 December 2007. During that time period, 1,545 analyses were performed on 1,352 samples. In assessing all the data gathered for this report and comparing these results with preoperational data, it was concluded that the operation of LCS had no adverse radiological impact on the environment.

Surface water samples were analyzed for concentrations of gross beta, tritium and gamma emitting nuclides. Ground/well water samples were analyzed for concentrations of tritium and gamma emitting nuclides. No fission or activation products were detected. Gross beta and tritium activities detected were consistent with those detected in previous years.

Fish (commercially and recreationally important species) and sediment samples were analyzed for concentrations of gamma emitting nuclides. No fission or activation products were detected in fish or sediment. Sediment samples had Cs-137 concentrations consistent with levels observed during the preoperational years. No plant produced fission or activation products were found in sediment.

Air particulate samples were analyzed for concentrations of gross beta and gamma emitting nuclides. No fission or activation products were detected.

High sensitivity I-131 analyses were performed on bi-weekly air samples. All results were less than the minimum detectable activity.

Cow milk samples were analyzed for concentrations of I-131 and gamma emitting nuclides. All I-131 results were below the minimum detectable activity. Concentrations of naturally occurring K-40 were consistent with those detected in previous years. No fission or activation products were found.

Food product samples were analyzed for concentrations of gamma emitting nuclides. No fission or activation products were detected.

Environmental gamma radiation measurements were performed quarterly using thermoluminescent dosimeters. Levels detected were consistent with those observed in previous years.

II. Introduction

The LaSalle County Station (LCS), consisting of two boiling water reactors, each rated for 3489 MWt, owned and operated by Exelon Corporation, is located in LaSalle County, Illinois. Unit No. 1 went critical on 16 March 1982. Unit No. 2 went critical on 02 December 1983. The site is located in northern Illinois, approximately 75 miles southwest of Chicago, Illinois.

A Radiological Environmental Monitoring Program (REMP) for LCS was initiated in 1982. (The preoperational period for most media covers the periods 1 January 1979 through 26 December 1981 and was summarized in a separate report.) This report covers those analyses performed by Teledyne Brown Engineering (TBE), Global Dosimetry, and Environmental Inc. (Midwest Labs) on samples collected during the period 1 January 2007 through 31 December 2007.

A. Objective of the REMP

The objectives of the REMP are to:

1. Provide data on measurable levels of radiation and radioactive materials in the site environs.

2. Evaluate the relationship between quantities of radioactive material released from the plant and resultant radiation doses to individuals from principal pathways of exposure.

B. Implementation of the Objectives

The implementation of the objectives is accomplished by:

1. Identifying significant exposure pathways.

2. Establishing baseline radiological data of media within those pathways.

3. Continuously monitoring those media before and during Station operation to assess Station radiological effects (if any) on man and the environment.

III. Program Description

A. Sample Collection

Samples for the LCS REMP were collected for Exelon Nuclear by

Environmental Inc. (Midwest Labs). This section describes the general collection methods used by Environmental Inc. (Midwest Labs) to obtain environmental samples for the LCS REMP in 2007. Sample locations and descriptions can be found in Tables B–1 and B–2, and Figures B–1 through B–4, Appendix B.

Aquatic Environment

The aquatic environment was evaluated by performing radiological analyses on samples of surface water, ground/well water, fish, and sediment. Two gallon water samples were collected weekly from two surface water locations (L-21 and L-40) and composited for monthly and quarterly required analyses. Control location was L-21. Two ground/well water locations (L-27 and L-28) were also grab sampled quarterly. All samples were collected in new unused plastic bottles, which were rinsed with source water prior to collection. Fish samples comprising the flesh of bluegill, channel catfish, freshwater drum and smallmouth buffalo were collected semiannually at three locations, L-34, L-35 and L-36 (Control). Sediment samples composed of recently deposited substrate were collected at three locations semiannually, L-21 (Control), L-40 and L-41.

Atmospheric Environment

The atmospheric environment was evaluated by performing radiological analyses on samples of air particulate, airborne iodine, milk and food products. Airborne iodine and particulate samples were collected and analyzed weekly at nine locations (L-01, L-03, L-04, L-05, L-06, L-07, L-08, L-10 and L-11). The control location was L-10. Airborne iodine and particulate samples were obtained at each location, using a vacuum pump with charcoal and glass fiber filters attached. The pumps were run continuously and sampled air at the rate of approximately one cubic foot per minute. The air filters and air iodine samples were replaced weekly and sent to the laboratory for analysis.

Milk samples were collected biweekly at one location (L-42) from May through October, and monthly from November through April. The control location was L-42. All samples were collected in new unused two gallon plastic bottles from the bulk tank at each location, preserved with sodium bisulfite, and shipped promptly to the laboratory.

Food products were collected annually in September at five locations (L-Quad C, L-Quad 1, L-Quad 2, L-Quad 3, and L-Quad 4). The control location was L-Quad C. Various types of samples were collected and placed in new unused plastic bags, and sent to the laboratory for analysis.

Ambient Gamma Radiation

Direct radiation measurements were made using CaF_2 thermoluminescent dosimeters (TLD). Each location consisted of 2 TLD sets. The TLD locations were placed on and around the LCS site as follows:

An inner ring consisting of 16 locations (L-101, L-102, L-103, L-104, L-105, L-106, L-107, L-108, L-109, L-110, L-111B, L-112, L-113A, L-114, L-115 and L-116) near and within the site perimeter representing fence post doses (i.e., at locations where the doses will be potentially greater than maximum annual off–site doses) from LCS release.

An outer ring consisting of 16 locations (L-201, L-202, L-203, L-204, L-205, L-206, L-207, L-208, L-209, L-210, L-211, L-212, L-213, L-214, L-215 and L-216) extending to approximately 5 miles from the site designed to measure possible exposures to close-in population.

An other set consisting of eight locations (L-01, L-03, L-04, L-05, L-06, L-07, L-08 and L-11).

The balance of one location (L-10) representing the control area.

The specific TLD locations were determined by the following criteria:

1. The presence of relatively dense population;

2. Site meteorological data taking into account distance and elevation for each of the sixteen–22 1/2 degree sectors around the site, where estimated annual dose from LCS, if any, would be most significant;

3. On hills free from local obstructions and within sight of the vents (where practical);

4. And near the closest dwelling to the vents in the prevailing downwind direction.

(Two TLDs – each comprised of two CaF_2 thermoluminescent phosphors enclosed in plastic – were placed at each location approximately six feet above ground level. The TLDs were exchanged quarterly and sent to Global Dosimetry for analysis.)

B. Sample Analysis

This section describes the general analytical methodologies used by TBE

and Environmental Inc (Midwest Labs) to analyze the environmental samples for radioactivity for the LCS REMP in 2007. The analytical procedures used by the laboratories are listed in Table B-2.

In order to achieve the stated objectives, the current program includes the following analyses:

1. Concentrations of beta emitters in surface water and air particulates.

2. Concentrations of gamma emitters in ground/well and surface water, air particulates, milk, fish, sediment and vegetation.

3. Concentrations of tritium in ground/well and surface water.

4. Concentrations of I-131 in air and milk.

5. Ambient gamma radiation levels at various site environs.

C. Data Interpretation

The radiological and direct radiation data collected prior to LaSalle County Station becoming operational were used as a baseline with which these operational data were compared. For the purpose of this report, LaSalle County Station was considered operational at initial criticality. In addition, data were compared to previous years' operational data for consistency and trending. Several factors were important in the interpretation of the data:

1. Lower Limit of Detection and Minimum Detectable Concentration

The lower limit of detection (LLD) was defined as the smallest concentration of radioactive material in a sample that would yield a net count (above background) that would be detected with only a 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD was intended as a before the fact estimate of a system (including instrumentation, procedure and sample type) and not as an after the fact criteria for the presence of activity. All analyses were designed to achieve the required LCS detection capabilities for environmental sample analysis.

The minimum detectable concentration (MDC) is defined above with the exception that the measurement is an after the fact estimate of the presence of activity.

2. Net Activity Calculation and Reporting of Results

Net activity for a sample was calculated by subtracting background activity from the sample activity. Since the REMP measures extremely small changes in radioactivity in the environment, background variations may result in sample activity being lower than the background activity effecting a negative number. An MDC was reported in all cases where positive activity was not detected.

Gamma spectroscopy results for each type of sample were grouped as follows:

For surface water and food product 12 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140 were reported.

For ground/well water, fish, sediment, air particulate and milk 11 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, Cs-134, Cs-137, Ba-140, and La-140 were reported.

Means and standard deviations of the results were calculated. The standard deviations represent the variability of measured results for different samples rather than single analysis uncertainty.

D. Program Exceptions

For 2007 the LCS REMP had a sample recovery rate in excess of 99%. Sample anomalies and missed samples are listed in the tables below:

Table D-1 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	L-08	01/18/07	No apparent reason for low timer reading of 162.1 hours.
A/I	L-10	02/23/07	No readings; pump did not start when electricity was turned back on. Pump running when collector left location.
A/I	L-01	04/05/07	No electricity; station Point of Contact notified.
A/I	L-01	04/12/07	Low timer reading of 136.8 hours due to recent power restoration.

Table D-1 LISTING OF SAMPLE ANOMALIES (continued)

Sample Type	Location Code	Collection Date	Reason
A/I	L-05	07/19/07	Low reading of 135.1 hours due to power outage.
A/I	L-07	07/19/07	Low reading of 137.8 hours due to power outage.
A/I	L-11	07/19/07	No apparent reason for low reading of 140.0 hours; possibly due to storms in area.
A/I	L-05	07/26/07	Low reading of 163.0 hours due to power outage/restoration.
A/I	L-06	08/08/07	Low reading of 75.7 hours possibly due to storms in area.
A/I	L-06	08/15/07	Low reading of 13.2 hours due to blown fuse; collector replaced fuse.
A/I	L-08	08/15/07	Low reading of 163.9 possibly due to storms in area.
A/I	L-07	09/13/07	Low reading of 91.6 hours due to recent power restoration.

Table D-2 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Collection Date	Reason
A/I	L-10	02/15/07	No electricity; ComEd working on line.
A/I	L-07	07/26/07	No sample due to power outage; problem traced to substation.
A/I	L-07	08/02/07	No sample; power out.
A/I	L-07	08/08/07	No sample; run time of 1.3 hours not enough for viable sample; power out.

Table D-2 LISTING OF MISSED SAMPLES (continued)

Sample Type	Location Code	Collection Date	Reason
A/I	L-07	08/15/07	No sample; power out; unable to field check pump.
A/I	L-07	08/23/07	No sample; power out.
A/I	L-07	08/30/07	No sample; power out.
A/I	L-07	09/06/07	No sample; power out.
TLD	L-215-4	12/27/07	4th quarter TLD found missing during exchange; new utility pole erected. Collector placed new 1st quarter TLD.

Each program exception was reviewed to understand the causes of the program exception. Occasional equipment breakdowns and power outages were unavoidable. The power outage associated with A/I sample location L-07 was due to a failed transformer, resulting in extensive efforts and the associated delay to restore power to L-07. Restoration efforts included a modification to provide a more reliable power supply from an overhead line.

The overall sample recovery rate indicates that the appropriate procedures and equipment are in place to assure reliable program implementation.

E. Program Changes

Starting in 2007, the mean and two standard deviation values are calculated using the positive values only.

Sediment location L-21 was added as an upstream control location in the middle of 2007.

IV. Results and Discussion

A. Aquatic Environment

1. Surface Water

Samples were taken weekly and composited monthly at two

locations (L-21 and L-40). Of these locations only L-40 located downstream, could be affected by LaSalle's effluent releases. The following analyses were performed.

Gross Beta

Samples from all locations were analyzed for concentrations of gross beta (Table C–I.1, Appendix C). The values ranged from 4.4 to 11.9 pCi/l. Concentrations detected were consistent with those detected in previous years (Figure C–1, Appendix C). The required LLD was met.

Tritium

Quarterly composites of weekly collections were analyzed for tritium activity (Table C–I.2, Appendix C). Tritium was detected in one sample with a concentration of 456 pCi/l. The affected sample location was L-21, the Station's Illinois River upstream control location, and not related to plant operation. Concentrations detected were consistent with those detected in previous years (Figure C–2, Appendix C). The 2000 pCi/L OCDM and contractually required 200 pCi/L LLDs were met.

Gamma Spectrometry

Samples from both locations were analyzed for gamma emitting nuclides (Table C–I.3, Appendix C). No nuclides were detected, and all required LLDs were met.

2. Ground/well Water

Quarterly grab samples were collected at two locations (L-27 and L-28). These locations could be affected by LaSalle's effluent releases. The following analyses were performed:

Tritium

Quarterly grab samples from the locations were analyzed for tritium activity (Table C–II.1, Appendix C). No tritium was detected and the 2000 pCi/L OCDM and contractually required 200 pCi/L LLDs were met.

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–II.2, Appendix C). No nuclides were detected, and all required LLDs were met.

3. Fish

Fish samples comprised bluegill, channel catfish, freshwater drum and smallmouth buffalo were collected at three locations (L-34, L-35 and L-36) semiannually. Locations L-34 and L-35 could be affected by LaSalle's effluent releases. The following analysis was performed:

Gamma Spectrometry

The edible portion of fish samples from both locations was analyzed for gamma emitting nuclides (Table C–III.1, Appendix C). Naturally occurring K-40 was found at all stations and ranged from 2,170 to 3,530 pCi/kg wet. No fission or activation products were found.

4. Sediment

Aquatic sediment samples were collected at three locations (L-21, L-40 and L-41) semiannually. Locations L-40 and L-41, located downstream, could be affected by LaSalle's effluent releases. The following analysis was performed:

Gamma Spectrometry

Sediment samples from both locations were analyzed for gamma emitting nuclides (Table C–IV.1, Appendix C). Nuclides detected were naturally occurring K-40 and Cs-137.

Potassium-40 was found at all stations and ranged from 9,850 to 13,300 pCi/kg dry. Cs-137 was found in one sample at a concentration of 26 pCi/kg dry. The activity detected was consistent with those detected in previous years and is likely due to fallout from above-ground nuclear weapons testing. No LaSalle fission or activation products were found.

B. Atmospheric Environment

1. Airborne

a. Air Particulates

Continuous air particulate samples were collected from nine locations on a weekly basis. The nine locations were separated into four groups: Group I (onsite) represents locations within the LCS site boundary (L-05 and L-06), Group II (near site) represents the locations near the LCS site (L-01 and L-06), Group III (far field) represents the control location at an intermediate distance from LCS (L-04, L-07, L-08 and L-11) and Group IV (Control) represents the control location at a remote distance (L-10). The following analyses were performed:

Gross Beta

Weekly samples were analyzed for concentrations of beta emitters (Table C–V.1 and C–V.2, Appendix C). Detectable gross beta activity was observed at all locations. Comparison of results among the four groups aid in determining the effects, if any, resulting from the operation of LCS. The results from the OnSite locations (Group I) ranged from 10 to 42 E–3 pCi/m^3 with a mean of 21 E–3 pCi/m^3. The results from the near site location (Group II) ranged from 9 to 47 E–3 pCi/m^3 with a mean of 22 E–3 pCi/m^3. The results from the far field locations (Group III) ranged from 10 to 46 E-3 pCi/m^3 with a mean of 22 E–3 pCi/m^3. The results from the Control location (Group IV) ranged from 10 to 44 E–3 pCi/m^3 with a mean of 22 E–3 pCi/m^3. Comparison of the 2007 air particulate data with previous years data indicate no effects from the operation of LCS (Figures C–3 through C-7, Appendix C). In addition a comparison of the weekly mean values for 2007 indicate no notable differences among the three groups.

Gamma Spectrometry

Weekly samples were composited quarterly and analyzed for gamma emitting nuclides (Table C–V.3, Appendix C). Naturally occurring Be-7 due to cosmic ray activity was detected in all samples. These values ranged from 97 to 336 E–3 pCi/m^3. Naturally occurring K-40 was detected in

five samples at concentrations of 12 to 23 E–3 pCi/m^3. All other nuclides were less than the MDC.

b. Airborne Iodine

Continuous air samples were collected from nine locations (L-01, L-03, L-04, L-05, L-07, L-08, L-10, L-14, and L-53) and analyzed weekly for I-131 (Table C–VI.1, Appendix C). No nuclides were detected, and all required LLDs were met.

2. Terrestrial

a. Milk

Samples were collected from one location (L-42) biweekly May through October and monthly November through April. The following analyses were performed:

Iodine-131

Milk samples from the location were analyzed for concentrations of I-131 (Table C–VII.1, Appendix C). No nuclides were detected, and all required LLDs were met.

Gamma Spectrometry

Each milk sample was analyzed for concentrations of gamma emitting nuclides (Table C–VII.2, Appendix C).

Naturally occurring K-40 activity was found in all samples and ranged from 1,150 to 1,360 pCi/l. No other nuclides were detected, and all required LLDs were met.

b. Food Products

Food product samples were collected at five locations (L-Quad C, L-Quad 1, L-Quad 2, L-Quad 3 and L-Quad 4) when available. Four locations, (L-Quad 1, L-Quad 2, L-Quad 3 and L-Quad 4) could be affected by LaSalle's effluent releases. The following analysis was performed:

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–VIII.1, Appendix C). No nuclides were detected, and all required LLDs were met.

C. Ambient Gamma Radiation

Ambient gamma radiation levels were measured utilizing Panasonic 814 (CaF_2) thermoluminescent dosimeters. Forty-one TLD locations were established around the site. Results of TLD measurements are listed in Tables C–IX.1 to C–IX.3, Appendix C.

Most TLD measurements were below 30 mR/standard month, with a range of 17 to 30 mR/quarter. A comparison of the Inner Ring, Outer Ring, and Other data to the Control Location data, indicate that the ambient gamma radiation levels from the Control Location L-10 were comparable.

D. Land Use Survey

A Land Use Survey conducted during the August 2007 growing season around the LaSalle County Station (LCS) was performed by Environmental Inc. (Midwest Labs) for Exelon Nuclear to comply with Radiological Effluent Control 12.5.2 of the LaSalle's Offsite Dose Calculation Manual. The purpose of the survey was to document the nearest resident, milk producing animal and garden of greater than 500 ft^2 in each of the sixteen 22 ½ degree sectors around the site. The distance and direction of all locations from the LCS reactor buildings were positioned using Global Positioning System (GPS) technology. There were no changes required to the LCS REMP, as a result of this survey. The results of this survey are summarized below.

Distance in Miles from the LCS Reactor Buildings			
Sector	Residence Miles	Livestock Miles	Milk Farm Miles
A N	3.9	4.0	-
B NNE	1.6	1.7	-
C NE	2.1	3.5	-
D ENE	3.3	3.8	-
E E	3.2	-	12.6
F ESE	1.4	-	-
G SE	1.7	4.7	-
H SSE	1.8	4.7	-
J S	1.5	4.7	-
K SSW	0.7	-	-
L SW	1.0	5.8	-
M WSW	1.5	1.5	-
N W	1.5	3.0	-
P WNW	0.9	3.0	-
Q NW	1.8	4.0	-
R NNW	1.7	4.6	-

E. Summary of Results – Inter-Laboratory Comparison Program

The primary and secondary laboratories analyzed Performance Evaluation (PE) samples of air particulate, air iodine, milk, soil, vegetation and water matrices (Appendix D). The PE samples, supplied by Analytics Inc., Environmental Resource Associates (ERA) and DOE's Mixed Analyte Performance Evaluation Program (MAPEP), were evaluated against the following pre-set acceptance criteria:

1. Analytics Evaluation Criteria

   Analytics' evaluation report provides a ratio of laboratory results and Analytics' known value. Since flag values are not assigned by Analytics, TBE-ES evaluates the reported ratios based on internal QC requirements, which are based on the DOE MAPEP criteria.

2. ERA Evaluation Criteria

   ERA's evaluation report provides an acceptance range for control and warning limits with associated flag values. ERA's acceptance limits are established per the USEPA, NELAC, state specific PT program requirements or ERA's SOP for the Generation of Performance Acceptance Limits, as applicable. The acceptance limits are either determined by a regression equation specific to each analyte or a fixed percentage limit promulgated under the appropriate regulatory document.

3. DOE Evaluation Criteria

MAPEP's evaluation report provides an acceptance range with associated flag values.

The MAPEP defines three levels of performance: Acceptable (flag = "A"), Acceptable with Warning (flag = "W"), and Not Acceptable (flag = "N"). Performance is considered acceptable when a mean result for the specified analyte is ± 20% of the reference value. Performance is acceptable with warning when a mean result falls in the range from ±20% to ±30% of the reference value (i.e., 20% < bias < 30%). If the bias is greater than 30%, the results are deemed not acceptable.

For the primary laboratory, 17 out of 19 analytes met the specified acceptance criteria. Two samples did not meet the specified acceptance criteria for the following reasons:

1. Teledyne Brown Engineering's Analytics March 2007 I-131 in charcoal result of 34.7 pCi was lower than the known value of 71.3, resulting in a found to known ratio of 0.49. A new technician counted the charcoal cartridge on the back rather than the face side. Due to decay of the I-131, recounting could not be performed. Counting the 2nd quarter Analytics charcoal cartridge on the face and the back resulted in approximately 220% more activity on the face of the cartridge. This indicates that we would have had acceptable results (ratio approximately 1.07) if the cartridge had been counted on the face side. The investigation was documented by Nonconformance Report NCR 07-02.

2. Teledyne Brown Engineering's ERA July 2007 Cs-134 result of 57.6 pCi/L exceeded the lower acceptance limit of 60.2 pCi/L. The high activity of the sample resulted in the lower acceptance limit of 8.66, although the ratio of found to known was 83.6%, which is considered acceptable by TBE. The investigation was documented by Nonconformance Report NCR 07-07.

For the secondary laboratory, 18 out of 19 analytes met the specified acceptance criteria. One sample did not meet the specified acceptance criteria for the following reasons:

1. Environmental Inc.'s ERA March 2007 air particulate Cs-137 result of 345.3 pCi/L exceeded the upper control limit of 336 pCi/L. The reported result was calculated using composite filter geometry rather than the single filter geometry. The recalculated result of

305.8 pCi/filter fell within the acceptance limits. This was entered into their June 2007 Program Deviation Report.

The Inter-Laboratory Comparison Program provides evidence of "in control" counting systems and methods, and that the laboratories are producing accurate and reliable data.

APPENDIX A

RADIOLOGICAL ENVIRONMENTAL MONITORING REPORT QUARTERLY AND ANNUAL SUMMARY

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILIT' MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	24	4	8 (12/12) (4.7/11.3)	7.5 (12/12) (4.4/11.9)	8 (12/12) (4.7/11.3)	L-40 INDICATOR ILLINOIS RIVER - DOWNSTREAM 5.2 MILES NNW OF SITE	0
	H-3	8	200	<LLD	456 (1/4) (456)	456 (1/4) (456)	L-21 CONTROL ILLINOIS RIVER AT SENECA - UPSTREAM 4.0 MILES NE OF SITE	0
	GAMMA	24						
	MN-54		15	<LLD	<LLD	-		0
	CO-58		15	<LLD	<LLD	-		0
	FE-59		30	<LLD	<LLD	-		0
	CO-60		15	<LLD	<LLD	-		0
	ZN-65		30	<LLD	<LLD	-		0
	NB-95		15	<LLD	<LLD	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	ZR-95		30	<LLD	<LLD	-		0
	I-131		15	<LLD	<LLD	-		0
	CS-134		15	<LLD	<LLD	-		0
	CS-137		18	<LLD	<LLD	-		0
	BA-140		60	<LLD	<LLD	-		0
	LA-140		15	<LLD	<LLD	-		0
GROUND WATER (PCI/LITER)	H-3	10	200	<LLD	NA	-		0
	GAMMA	10						
	MN-54		15	<LLD	NA	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROUND WATER (PCI/LITER)	CO-58		15	<LLD	NA	-		0
	FE-59		30	<LLD	NA	-		0
	CO-60		15	<LLD	NA	-		0
	ZN-65		30	<LLD	NA	-		0
	NB-95		15	<LLD	NA	-		0
	ZR-95		30	<LLD	NA	-		0
	CS-134		15	<LLD	NA	-		0
	CS-137		18	<LLD	NA	-		0

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FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

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LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROUND WATER (PCI/LITER)	BA-140		60	<LLD	NA	-		0
	LA-140		15	<LLD	NA	-		0
FISH (PCI/KG WET)	GAMMA MN-54	12	130	<LLD	<LLD	-		0
	CO-58		130	<LLD	<LLD	-		0
	FE-59		260	<LLD	<LLD	-		0
	CO-60		130	<LLD	<LLD	-		0
	ZN-65		260	<LLD	<LLD	-		0
	NB-95		NA	<LLD	<LLD	-		0

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NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG WET)	ZR-95		NA	<LLD	<LLD	-		0
	CS-134		130	<LLD	<LLD	-		0
	CS-137		150	<LLD	<LLD	-		0
	BA-140		NA	<LLD	<LLD	-		0
	LA-140		NA	<LLD	<LLD	-		0
SEDIMENT (PCI/KG DRY)	GAMMA MN-54	5	NA	<LLD	<LLD	-		0
	CO-58		NA	<LLD	<LLD	-		0
	FE-59		NA	<LLD	<LLD	-		0

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FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SEDIMENT (PCI/KG DRY)	CO-60		NA	<LLD	<LLD	-		0
	ZN-65		NA	<LLD	<LLD	-		0
	NB-95		NA	<LLD	<LLD	-		0
	ZR-95		NA	<LLD	<LLD	-		0
	CS-134		150	<LLD	<LLD	-		0
	CS-137		180	26 (1/4) (26)	<LLD	26 (1/2) (26)	L-40 INDICATOR ILLINOIS RIVER - DOWNSTREAM 5.2 MILES NNW OF SITE	0
	BA-140		NA	<LLD	<LLD	-		0
	LA-140		NA	<LLD	<LLD	-		0

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FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

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LOCATION OF FACILIT' MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	468	10	22 (416/416) (9/47)	22 (52/52) (10/44)	23 (53/53) (14/38)	L-11 INDICATOR RANSOM 6.0 MILES S OF SITE	0
	GAMMA	36						
	MN-54		NA	<LLD	<LLD	-		0
	CO-58		NA	<LLD	<LLD	-		0
	FE-59		NA	<LLD	<LLD	-		0
	CO-60		NA	<LLD	<LLD	-		0
	ZN-65		NA	<LLD	<LLD	-		0
	NB-95		NA	<LLD	<LLD	-		0
	ZR-95		NA	<LLD	<LLD	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

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LOCATION OF FACILIT' MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (E-3 PCI/CU.METER)	CS-134		50	<LLD	<LLD	-		0
	CS-137		60	<LLD	<LLD	-		0
	BA-140		NA	<LLD	<LLD	-		0
	LA-140		NA	<LLD	<LLD	-		0
AIR IODINE (E-3 PCI/CU.METER)	GAMMA I-131	468	70	<LLD	<LLD	-		0
MILK (PCI/LITER)	I-131	19	1	NA	<LLD	-		0
	GAMMA MN-54	19	NA	NA	<LLD	-		0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILIT' MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
MILK (PCI/LITER)	CO-58		NA	NA	<LLD	-		0
	FE-59		NA	NA	<LLD	-		0
	CO-60		NA	NA	<LLD	-		0
	ZN-65		NA	NA	<LLD	-		0
	NB-95		NA	NA	<LLD	-		0
	ZR-95		NA	NA	<LLD	-		0
	CS-134		15	NA	<LLD	-		0
	CS-137		18	NA	<LLD	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

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LOCATION OF FACILIT' MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
MILK (PCI/LITER)	BA-140		60	NA	<LLD	-		0
	LA-140		15	NA	<LLD	-		0
VEGETATION (PCI/KG WET)	GAMMA	10						
	MN-54		NA	<LLD	<LLD	-		0
	CO-58		NA	<LLD	<LLD	-		0
	FE-59		NA	<LLD	<LLD	-		0
	CO-60		NA	<LLD	<LLD	-		0
	ZN-65		NA	<LLD	<LLD	-		0
	NB-95		NA	<LLD	<LLD	-		0

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FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE LASALLE COUNTY STATION, 2007

NAME OF FACILITY: LASALLE				DOCKET NUMBER:		50-373 & 50-374		
LOCATION OF FACILITY: MARSEILLES IL				REPORTING PERIOD:		ANNUAL 2007		
				INDICATOR LOCATIONS	CONTROL LOCATION	LOCATION WITH HIGHEST ANNUAL MEAN(M)		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
VEGETATION (PCI/KG WET)	ZR-95		NA	<LLD	<LLD	-		0
	I-131		60	<LLD	<LLD	-		0
	CS-134		60	<LLD	<LLD	-		0
	CS-137		80	<LLD	<LLD	-		0
	BA-140		NA	<LLD	<LLD	-		0
	LA-140		NA	<LLD	<LLD	-		0
DIRECT RADIATION (MILLI-ROENTGEN/QTR.)	TLD-QUARTERLY	336	NA	23.4 (328/328) (18/30)	19.6 (8/8) (17/23)	26.5 (4/4) (25/27)	L-102-1 INDICATOR 0.6 MILES NNE	0

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APPENDIX B

LOCATION DESIGNATION, DISTANCE & DIRECTION, AND SAMPLE COLLECTION & ANALYTICAL METHODS

TABLE B-1: Radiological Environmental Monitoring Program - Sampling Locations, Distance and Direction, LaSalle County Station, 2007

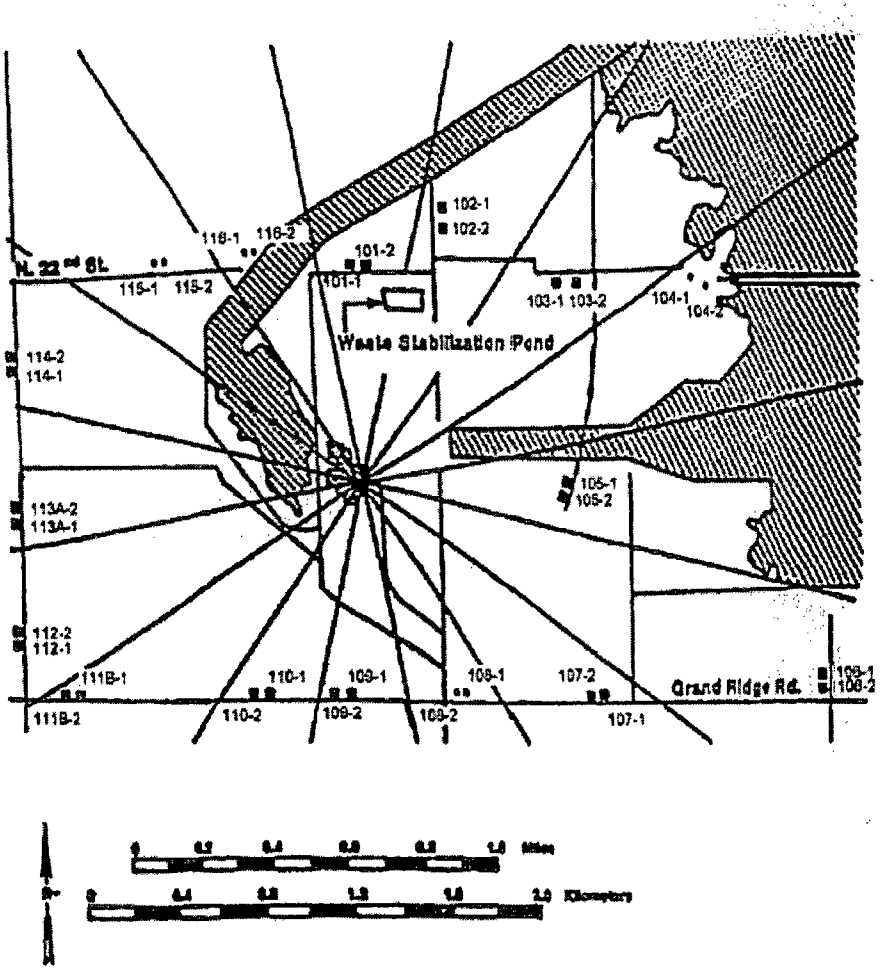
Location	Location Description	Distance & Direction From Site
A. Surface Water		
L-21	Illinois River at Seneca, Upstream (control)	4.0 miles NE
L-40	Illinois River, Downstream (indicator)	5.2 miles NNW
B. Ground/Well Water		
L-27	LSCS Onsite Well (indicator)	0 miles at station
L-28	Marseilles Well (indicator)	7.0 miles NW
C. Milk - bi-weekly / monthly		
L-42	Biros Farm (control)	14.2 miles E
D. Air Particulates / Air Iodine		
L-01	Nearsite 1 (indicator)	1.5 miles NNW
L-03	Onsite 3 (indicator)	1.0 miles ENE
L-04	Rte. 170 (indicator)	3.2 miles E
L-05	Onsite 5 (indicator)	0.3 miles ESE
L-06	Nearsite 6 (indicator)	0.4 miles WSW
L-07	Seneca (indicator)	5.2 miles NNE
L-08	Marseilles (indicator)	6.0 miles NNW
L-10	Streator (control)	13.5 miles SW
L-11	Ransom (indicator)	6.0 miles S
E. Fish		
L-34	LaSalle Cooling Lake (indicator)	2.0 miles E
L-35	Marseilles Pool of Illinois River, Downstream (indicator)	6.5 miles NW
L-36	Illinois River, Upstream of Discharge (control)	4.3 miles NNE
F. Sediment		
L-21	Illinois River at Seneca, Upstream (control)	4.0 miles NE
L-40	Illinois River, Downstream (indicator)	5.2 miles NNW
L-41	Illinois River, Downstream (indicator)	4.6 miles NNW
G. Food Products		
Quadrant 1	Diane Partridge	4.5 miles NE
Quadrant 2	Mike and Gina Welbourne	3.8 miles ESE
Quadrant 3	Michael Olson	1.5 miles WSW
Quadrant 4	Robert Eisers	4.5 miles NW
Control	Eugene Clements	10.0 miles NW

TABLE B-1: Radiological Environmental Monitoring Program - Sampling Locations, Distance and Direction, LaSalle County Station, 2007

Location	Location Description	Distance & Direction From Site
H. Environmental Dosimetry - TLD		
Inner Ring		
L-101-1 and -2		0.5 miles N
L-102-1 and -2		0.6 miles NNE
L-103-1 and -2		0.7 miles NE
L-104-1 and -2		0.8 miles ENE
L-105-1 and -2		0.7 miles E
L-106-1 and -2		1.4 miles ESE
L-107-1 and -2		0.8 miles SE
L-108-1 and -2		0.5 miles SSE
L-109-1 and -2		0.6 miles S
L-110-1 and -2		0.6 miles SSW
L-111b-1 and -2		0.8 miles SW
L-112-1 and -2		0.9 miles WSW
L-113a-1 and -2		0.8 miles W
L-114-1 and -2		0.9 miles WNW
L-115-1 and -2		0.7 miles NW
L-116-1 and -2		0.6 miles NNW
Outer Ring		
L-201-3 and -4		4.0 miles N
L-202-3 and -4		3.6 miles NNE
L-203-1 and -2		4.0 miles NE
L-204-1 and -2		3.2 miles ENE
L-205-1 and -2		3.2 miles ESE
L-205-3 and -4		5.1 miles E
L-206-1 and -2		4.3 miles SE
L-207-1 and -2		4.5 miles SSE
L-208-1 and -2		4.5 miles S
L-209-1 and -2		4.0 miles SSW
L-210-1 and -2		3.3 miles SW
L-211-1 and -2		4.5 miles WSW
L-212-1 and -2		4.0 miles WSW
L-213-3 and -4		4.9 miles W
L-214-3 and -4		5.1 miles WNW
L-215-3 and -4		5.0 miles NW
L-216-3 and -4		5.0 miles NNW
Other		
L-01-1 and -2	Nearsite 1 (indicator)	1.5 miles NNW
L-03-1 and -2	Onsite 3 (indicator)	1.0 miles ENE
L-04-1 and -2	Rte. 170 (indicator)	3.2 miles E
L-05-1 and -2	Onsite 5 (indicator)	0.3 miles ESE
L-06-1 and -2	Nearsite 6 (indicator)	0.4 miles WSW
L-07-1 and -2	Seneca (indicator)	5.2 miles NNE
L-08-1 and -2	Marseilles (indicator)	6.0 miles NNW
L-11-1 and -2	Ransom	6.0 miles S
Control and Special Interest		
L-10-1 and -2	Streator	13.5 miles SW

TABLE B-2: Radiological Environmental Monitoring Program – Summary of Sample Collection and Analytical Methods, LaSalle County Station, 2007

Sample Medium	Analysis	Sampling Method	Analytical Procedure Number
Surface Water	Gamma Spectroscopy	Monthly composite from weekly grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Surface Water	Gross Beta	Monthly composite from weekly grab samples.	TBE, TBE-2008 Gross Alpha and/or gross beta activity in various matrices Env. Inc., W(DS)-01 Determination of gross alpha and/or gross beta in water (dissolved solids or total residue)
Surface Water	Tritium	Quarterly composite from weekly grab samples.	TBE, TBE-2011 Tritium analysis in drinking water by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Ground/Well Water	Gamma Spectroscopy	Quarterly grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Ground/Well Water	Tritium	Quarterly grab samples.	TBE, TBE-2011 Tritium analysis in drinking water by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Fish	Gamma Spectroscopy	Semi-annual samples collected via electroshocking or other techniques	TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Sediment	Gamma Spectroscopy	Semi-annual grab samples	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Air Particulates	Gross Beta	One-week composite of continuous air sampling through glass fiber filter paper	TBE, TBE-2008 Gross Alpha and/or gross beta activity in various matrices Env. Inc., AP-02 Determination of gross alpha and/or gross beta in air particulate filters
Air Particulates	Gamma Spectroscopy	Quarterly composite of each station	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Air Iodine	Gamma Spectroscopy	Bi-weekly composite of continuous air sampling through charcoal filter	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., I-131-02 Determination of I-131 in charcoal canisters by gamma spectroscopy (batch method)
Milk	I-131	Bi-weekly grab sample when cows are on pasture. Monthly all other times	TBE, TBE-2012 Radioiodine in various matrices Env. Inc., I-131-01 Determination of I-131 in milk by anion exchange
Milk	Gamma Spectroscopy	Bi-weekly grab sample when cows are on pasture. Monthly all other times	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Food Products	Gamma Spectroscopy	Annual grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
TLD	Thermoluminescence Dosimetry	Quarterly TLDs comprised of two Global Dosimetry CaF_2 elements.	Global Dosimetry



■ TLD Location

Figure B-1
Inner Ring TLD Locations
of the LaSalle County Station, 2007

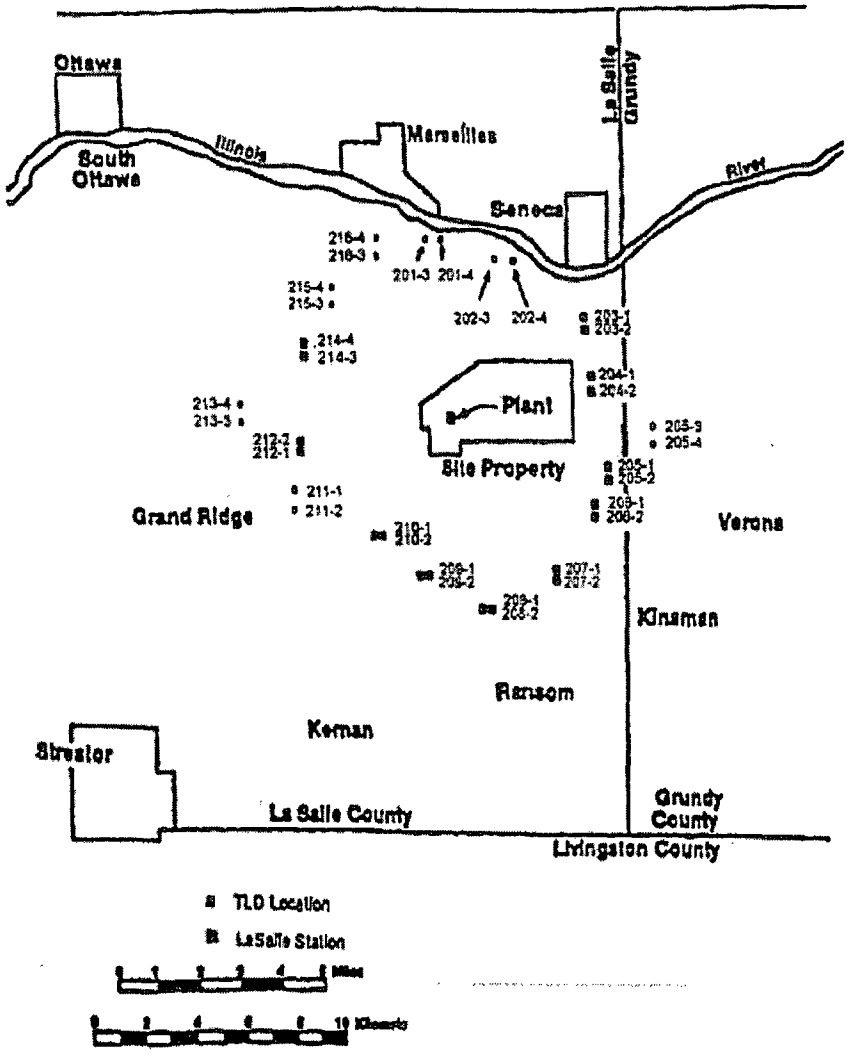


Figure B-2
Outer Ring TLD Locations
of the LaSalle County Station, 2007

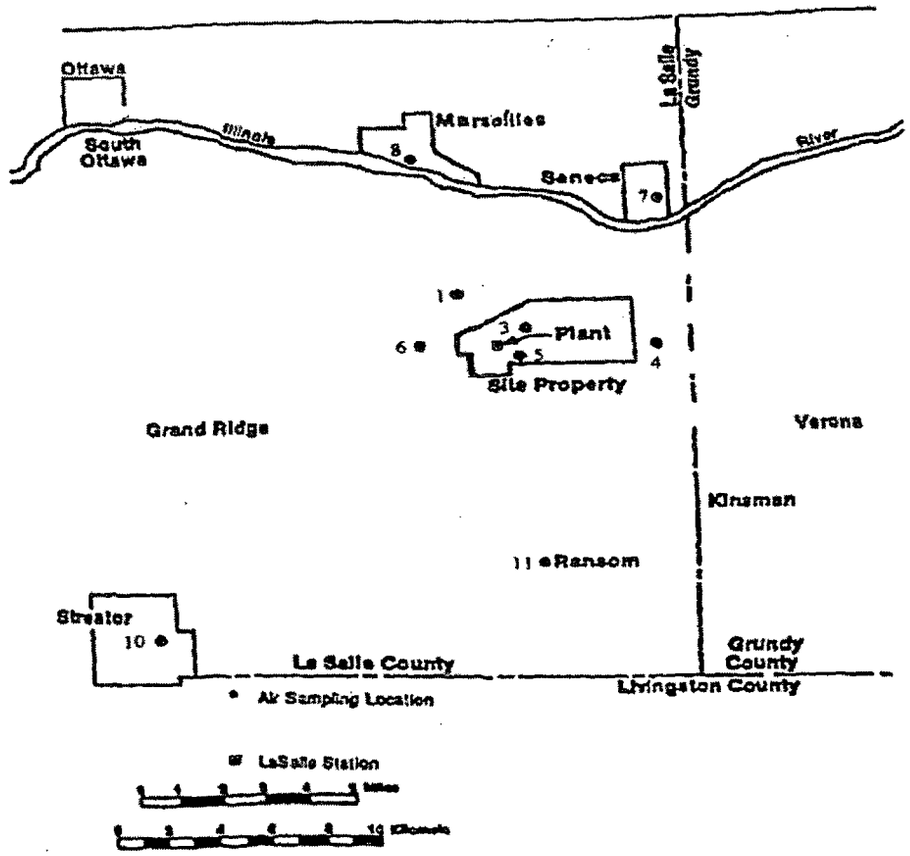


Figure B-3
Fixed Air Sampling Locations
of the LaSalle County Station, 2007

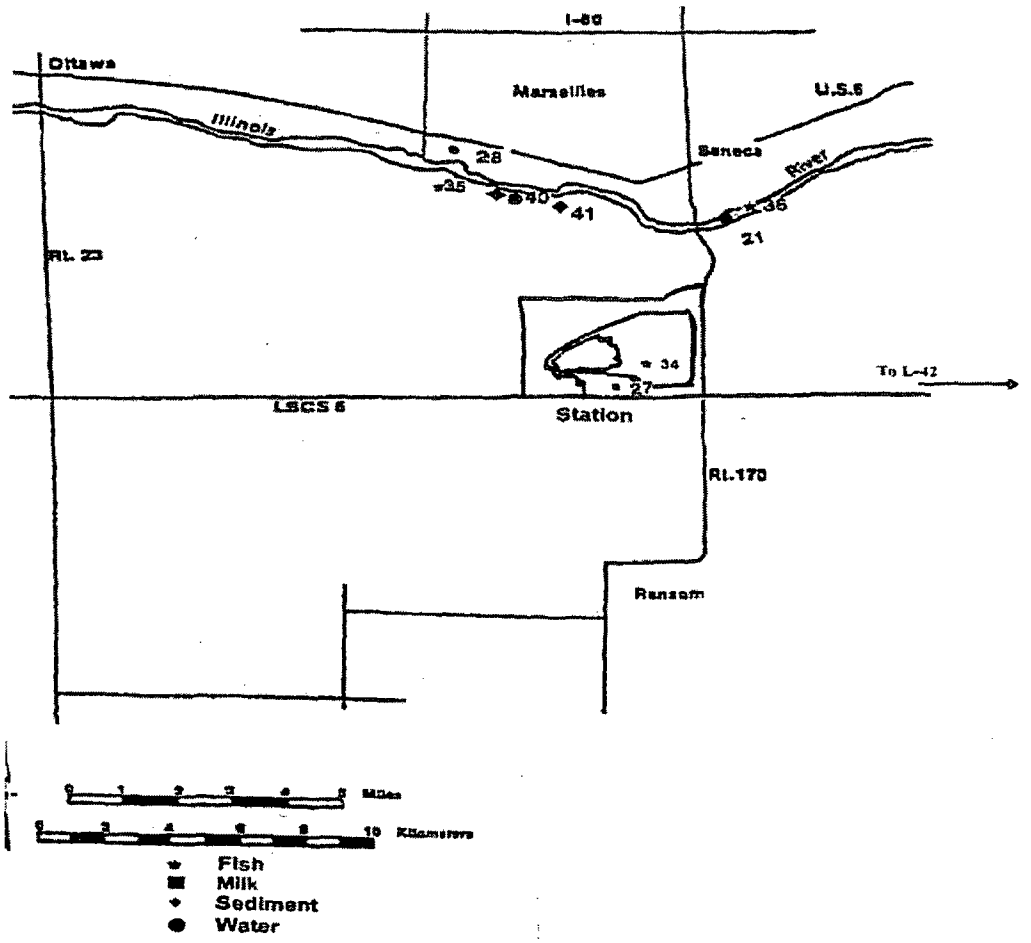


Figure B-4
Ingestion and Waterborne Exposure Pathway Sample Locations
of the LaSalle County Station, 2007

APPENDIX C

DATA TABLES AND FIGURES
PRIMARY LABORATORY

TABLE C-I.1 **CONCENTRATIONS OF GROSS BETA IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	L-21	L-40
01/04/07 - 01/25/07	4.4 ± 2.0	4.7 ± 2.0
02/01/07 - 02/23/07	6.4 ± 2.3	5.4 ± 2.0
03/01/07 - 03/29/07	6.6 ± 2.2	9.7 ± 2.4
04/05/07 - 04/26/07	5.7 ± 2.0	7.3 ± 2.1
05/03/07 - 05/31/07	6.5 ± 2.2	6.6 ± 2.2
06/07/07 - 06/28/07	7.6 ± 2.3	7.5 ± 2.3
07/05/07 - 07/26/07	6.5 ± 1.9	8.0 ± 2.0
08/02/07 - 08/30/07	8.3 ± 2.2	8.7 ± 2.2
09/06/07 - 09/27/07	9.9 ± 2.4	9.5 ± 2.3
10/04/07 - 10/31/07	7.8 ± 2.1	11 ± 2.3
11/08/07 - 11/29/07	9.0 ± 2.5	8.1 ± 2.4
12/06/07 - 12/27/07	12 ± 3.8	8.8 ± 3.6
MEAN	7.5 ± 4.1	8.0 ± 3.7

TABLE C-I.2 **CONCENTRATIONS OF TRITIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	L-21	L-40
01/04/07 - 03/29/07	< 192	< 185
04/05/07 - 06/28/07	< 177	< 174
07/05/07 - 09/27/07	< 184	< 185
10/04/07 - 12/27/07	456 ± 130	< 172
MEAN*	456 ± 0	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-I.3 **CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
L-21	01/04/07 - 01/25/07	< 2	< 3	< 6	< 3	< 6	< 3	< 6	< 12	< 3	< 3	< 25	< 8
	02/01/07 - 02/23/07	< 2	< 2	< 5	< 2	< 4	< 2	< 3	< 14	< 1	< 2	< 21	< 7
	03/01/07 - 03/29/07	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 12	< 1	< 1	< 18	< 7
	04/05/07 - 04/26/07	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 14	< 2	< 2	< 22	< 6
	05/03/07 - 05/31/07	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 14	< 1	< 1	< 16	< 4
	06/07/07 - 06/28/07	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 18	< 6
	07/05/07 - 07/26/07	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 15	< 2	< 2	< 26	< 8
	08/02/07 - 08/30/07	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 15	< 1	< 1	< 21	< 7
	09/06/07 - 09/27/07	< 2	< 2	< 4	< 2	< 4	< 2	< 3	< 13	< 2	< 2	< 20	< 7
	10/04/07 - 10/31/07	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 16	< 6
	11/08/07 - 11/29/07	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 13	< 1	< 1	< 20	< 7
	12/06/07 - 12/27/07	< 2	< 2	< 5	< 2	< 3	< 2	< 3	< 14	< 2	< 2	< 21	< 7
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
L-40	01/04/07 - 01/25/07	< 2	< 3	< 8	< 4	< 5	< 3	< 5	< 12	< 3	< 3	< 26	< 9
	02/01/07 - 02/23/07	< 2	< 2	< 4	< 2	< 3	< 2	< 4	< 15	< 2	< 2	< 21	< 6
	03/01/07 - 03/29/07	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 14	< 2	< 2	< 22	< 7
	04/05/07 - 04/26/07	< 2	< 2	< 5	< 2	< 4	< 2	< 3	< 13	< 2	< 2	< 21	< 7
	05/03/07 - 05/31/07	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 12	< 1	< 1	< 17	< 5
	06/07/07 - 06/28/07	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 18	< 6
	07/05/07 - 07/26/07	< 1	< 1	< 3	< 1	< 3	< 2	< 3	< 10	< 1	< 1	< 16	< 5
	08/02/07 - 08/30/07	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 14	< 1	< 1	< 20	< 5
	09/06/07 - 09/27/07	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 14	< 2	< 2	< 21	< 8
	10/04/07 - 10/31/07	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 13	< 1	< 1	< 16	< 5
	11/08/07 - 11/29/07	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 15	< 1	< 2	< 21	< 7
	12/06/07 - 12/27/07	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 13	< 2	< 2	< 21	< 6
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-II.1 **CONCENTRATIONS OF TRITIUM IN GROUND/WELL WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	L-27	L-28
01/11/07 - 01/11/07	< 186	< 188
04/12/07 - 04/12/07	< 156	< 157
07/19/07 - 07/19/07	< 161	< 161
10/11/07 - 10/11/07	< 193	< 191
MEAN	-	-

TABLE C-II.2 CONCENTRATIONS OF GAMMA EMITTERS IN GROUND/WELL WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-27	01/11/07	< 4	< 4	< 12	< 6	< 9	< 4	< 8	< 3	< 4	< 32	< 9
	04/12/07	< 3	< 3	< 7	< 3	< 6	< 3	< 5	< 3	< 3	< 17	< 5
	07/12/07	< 5	< 5	< 9	< 5	< 9	< 5	< 8	< 4	< 5	< 29	< 9
	10/11/07	< 4	< 5	< 10	< 4	< 9	< 5	< 9	< 4	< 5	< 28	< 10
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-28	01/11/07	< 4	< 5	< 11	< 5	< 11	< 6	< 10	< 5	< 5	< 32	< 7
	04/12/07	< 4	< 4	< 9	< 4	< 9	< 5	< 8	< 4	< 5	< 28	< 8
	07/12/07	< 5	< 4	< 10	< 4	< 10	< 5	< 9	< 4	< 4	< 29	< 10
Well #4	07/19/07	< 4	< 4	< 10	< 5	< 9	< 4	< 7	< 4	< 4	< 19	< 6
Well #5	10/11/07	< 4	< 5	< 11	< 4	< 9	< 5	< 8	< 4	< 5	< 29	< 11
Well #6	10/11/07	< 5	< 4	< 10	< 5	< 8	< 5	< 9	< 4	< 4	< 32	< 10
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-III.1 **CONCENTRATIONS OF GAMMA EMITTERS IN FISH SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PC/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-34												
Channel Catfish	05/09/07	< 54	< 58	< 145	< 48	< 84	< 84	< 127	< 52	< 56	< 1000	< 285
Common Carp	05/09/07	< 46	< 49	< 122	< 46	< 82	< 53	< 89	< 38	< 41	< 787	< 251
Channel Catfish	10/16/07	< 28	< 41	< 103	< 32	< 76	< 50	< 74	< 32	< 29	< 606	< 188
Largemouth Bass	10/16/07	< 37	< 55	< 122	< 39	< 82	< 48	< 113	< 34	< 36	< 708	< 206
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-35												
Channel Catfish	05/09/07	< 44	< 49	< 104	< 34	< 83	< 53	< 82	< 41	< 39	< 738	< 245
Smallmouth Buffalo	05/09/07	< 40	< 53	< 127	< 33	< 95	< 53	< 98	< 41	< 43	< 781	< 185
Channel Catfish	10/16/07	< 38	< 47	< 123	< 44	< 99	< 47	< 76	< 35	< 36	< 677	< 271
Smallmouth Buffalo	10/16/07	< 45	< 55	< 139	< 36	< 99	< 55	< 104	< 38	< 45	< 855	< 297
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-36												
Channel Catfish	05/09/07	< 36	< 32	< 98	< 31	< 73	< 43	< 66	< 32	< 32	< 585	< 162
Smallmouth Buffalo	05/09/07	< 51	< 66	< 158	< 58	< 130	< 75	< 121	< 55	< 55	< 1000	< 281
Channel Catfish	10/16/07	< 68	< 98	< 207	< 73	< 156	< 89	< 142	< 60	< 73	< 1380	< 397
Smallmouth Buffalo	10/16/07	< 44	< 68	< 157	< 57	< 135	< 88	< 116	< 61	< 57	< 1220	< 335
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-IV.1 CONCENTRATIONS OF GAMMA EMITTERS IN SEDIMENT SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF PC/KG DRY ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-21	10/04/07	< 94	< 68	< 216	< 83	< 163	< 114	< 170	< 61	< 80	< 678	< 185
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-40	05/09/07	< 25	< 27	< 67	< 25	< 65	< 32	< 55	< 20	26 ± 18	< 325	< 84
	10/04/07	< 75	< 64	< 219	< 63	< 202	< 92	< 132	< 51	< 88	< 503	< 150
	MEAN	-	-	-	-	-	-	-	-	26 ± 0	-	-
L-41	05/09/07	< 26	< 27	< 72	< 29	< 67	< 36	< 56	< 21	< 30	< 371	< 102
	10/04/07	< 78	< 91	< 213	< 83	< 165	< 100	< 191	< 58	< 95	< 833	< 184
	MEAN	-	-	-	-	-	-	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-V.1 CONCENTRATIONS OF GROSS BETA IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

COLLECTION PERIOD	GROUP I		GROUP II		GROUP III				GROUP IV
	L-03	L-05	L-01	L-06	L-04	L-07	L-08	L-11	L-10
12/28/06 - 01/04/07	21 ± 5	19 ± 4	23 ± 5	25 ± 5	25 ± 5	24 ± 5	22 ± 4	26 ± 5	25 ± 5
01/04/07 - 01/11/07	18 ± 4	20 ± 4	19 ± 4	19 ± 4	15 ± 4	20 ± 4	23 ± 5	19 ± 4	20 ± 4
01/11/07 - 01/18/07	16 ± 4	15 ± 4	17 ± 4	20 ± 5	16 ± 4	14 ± 4	17 ± 4	16 ± 4	16 ± 4
01/18/07 - 01/25/07	35 ± 5	34 ± 5	38 ± 6	31 ± 5	33 ± 5	33 ± 5	36 ± 5	36 ± 5	31 ± 5
01/25/07 - 02/01/07	20 ± 5	20 ± 4	23 ± 5	22 ± 5	23 ± 5	26 ± 5	26 ± 5	23 ± 5	21 ± 4
02/01/07 - 02/08/07	20 ± 5	17 ± 4	18 ± 4	22 ± 5	20 ± 5	23 ± 5	17 ± 4	26 ± 5	25 ± 5
02/08/07 - 02/15/07	21 ± 4	14 ± 4	18 ± 4	17 ± 4	19 ± 4	22 ± 4	18 ± 4	20 ± 4	13 ± 4
02/15/07 - 02/23/07	27 ± 4	21 ± 4	25 ± 4	23 ± 4	25 ± 4	25 ± 4	24 ± 4	23 ± 4	(1)
02/23/07 - 03/01/07	12 ± 4	10 ± 4	15 ± 5	17 ± 5	13 ± 4	11 ± 4	10 ± 4	17 ± 5	12 ± 4
03/01/07 - 03/07/07	18 ± 5	17 ± 4	16 ± 5	19 ± 5	20 ± 5	18 ± 5	18 ± 5	19 ± 5	18 ± 5
03/07/07 - 03/15/07	15 ± 4	18 ± 4	17 ± 4	20 ± 4	22 ± 4	15 ± 4	19 ± 4	19 ± 4	21 ± 4
03/15/07 - 03/22/07	19 ± 5	19 ± 4	18 ± 4	17 ± 4	17 ± 4	16 ± 4	19 ± 4	19 ± 4	16 ± 4
03/22/07 - 03/29/07	12 ± 4	10 ± 4	10 ± 4	9 ± 4	12 ± 4	14 ± 4	13 ± 4	16 ± 4	10 ± 4
03/29/07 - 04/05/07	17 ± 4	14 ± 4	22 ± 5	14 ± 4	19 ± 4	18 ± 4	16 ± 4	15 ± 4	20 ± 4
04/05/07 - 04/12/07	17 ± 4	13 ± 4	13 ± 5	18 ± 4	11 ± 4	14 ± 4	20 ± 4	17 ± 4	16 ± 4
04/12/07 - 04/19/07	18 ± 4	20 ± 4	19 ± 4	16 ± 4	20 ± 4	20 ± 4	17 ± 4	18 ± 4	19 ± 4
04/19/07 - 04/26/07	12 ± 4	14 ± 4	15 ± 4	16 ± 4	16 ± 4	13 ± 4	12 ± 4	15 ± 4	17 ± 4
04/26/07 - 05/03/07	13 ± 4	16 ± 4	13 ± 4	11 ± 4	17 ± 4	12 ± 4	14 ± 4	14 ± 4	16 ± 4
05/03/07 - 05/09/07	19 ± 5	17 ± 4	18 ± 5	19 ± 5	19 ± 4	19 ± 5	21 ± 5	19 ± 5	21 ± 5
05/09/07 - 05/17/07	20 ± 4	15 ± 4	19 ± 4	14 ± 4	16 ± 4	19 ± 4	16 ± 4	16 ± 4	13 ± 4
05/17/07 - 05/24/07	25 ± 5	21 ± 4	24 ± 5	23 ± 5	22 ± 5	21 ± 5	21 ± 5	23 ± 5	19 ± 4
05/24/07 - 05/31/07	19 ± 4	20 ± 4	20 ± 4	19 ± 4	19 ± 4	23 ± 5	21 ± 4	21 ± 4	18 ± 4
05/31/07 - 06/07/07	14 ± 4	14 ± 4	16 ± 4	11 ± 4	16 ± 4	13 ± 4	12 ± 4	16 ± 4	11 ± 4
06/07/07 - 06/14/07	23 ± 5	24 ± 5	17 ± 4	26 ± 5	24 ± 5	20 ± 4	17 ± 4	23 ± 5	23 ± 5
06/14/07 - 06/21/07	29 ± 5	24 ± 4	27 ± 5	27 ± 5	24 ± 4	26 ± 5	24 ± 4	26 ± 5	28 ± 5
06/21/07 - 06/28/07	17 ± 4	16 ± 4	13 ± 4	19 ± 4	17 ± 4	17 ± 4	17 ± 4	20 ± 4	19 ± 4
06/28/07 - 07/05/07	10 ± 4	11 ± 4	17 ± 4	12 ± 4	15 ± 4	12 ± 4	11 ± 4	14 ± 4	14 ± 4
07/05/07 - 07/12/07	22 ± 5	19 ± 5	20 ± 5	34 ± 8	21 ± 5	26 ± 5	26 ± 5	23 ± 5	28 ± 5
07/12/07 - 07/19/07	15 ± 4	16 ± 5	17 ± 4	18 ± 4	16 ± 4	12 ± 4	14 ± 4	16 ± 5	15 ± 4
07/19/07 - 07/26/07	23 ± 4	19 ± 4	18 ± 4	20 ± 4	23 ± 4	(1)	20 ± 4	24 ± 5	20 ± 4
07/26/07 - 08/02/07	26 ± 5	24 ± 5	30 ± 5	25 ± 5	27 ± 5	(1)	25 ± 5	29 ± 5	26 ± 5
08/02/07 - 08/08/07	26 ± 5	22 ± 5	27 ± 5	37 ± 9	26 ± 5	(1)	28 ± 5	28 ± 5	31 ± 5
08/08/07 - 08/15/07	24 ± 5	23 ± 5	26 ± 5	(1)	24 ± 5	(1)	14 ± 4	28 ± 5	24 ± 5
08/15/07 - 08/23/07	19 ± 4	17 ± 4	16 ± 4	15 ± 4	18 ± 4	(1)	16 ± 4	16 ± 4	20 ± 4
08/23/07 - 08/30/07	27 ± 5	22 ± 4	27 ± 5	23 ± 4	27 ± 5	(1)	23 ± 5	30 ± 5	24 ± 5
08/30/07 - 09/06/07	25 ± 5	28 ± 5	26 ± 5	33 ± 5	29 ± 5	(1)	30 ± 5	30 ± 5	32 ± 5
09/06/07 - 09/13/07	16 ± 4	18 ± 4	16 ± 4	13 ± 4	14 ± 4	11 ± 6	15 ± 4	16 ± 4	13 ± 4
09/13/07 - 09/20/07	25 ± 5	26 ± 5	25 ± 5	26 ± 5	26 ± 5	28 ± 5	28 ± 5	34 ± 5	26 ± 5
09/20/07 - 09/27/07	27 ± 5	26 ± 5	25 ± 5	28 ± 5	23 ± 5	20 ± 5	27 ± 5	30 ± 5	27 ± 5
09/27/07 - 10/04/07	29 ± 5	28 ± 5	35 ± 6	36 ± 6	29 ± 5	31 ± 5	29 ± 5	34 ± 5	31 ± 5
10/04/07 - 10/11/07	16 ± 4	16 ± 4	16 ± 4	17 ± 4	15 ± 4	17 ± 4	20 ± 4	20 ± 4	18 ± 4
10/11/07 - 10/18/07	22 ± 5	21 ± 5	22 ± 5	24 ± 5	20 ± 5	23 ± 5	20 ± 5	21 ± 5	17 ± 4
10/18/07 - 10/24/07	21 ± 5	22 ± 5	26 ± 5	21 ± 5	21 ± 5	23 ± 5	23 ± 5	26 ± 5	21 ± 5
10/24/07 - 10/31/07	19 ± 4	17 ± 4	21 ± 5	20 ± 5	21 ± 5	20 ± 5	21 ± 5	22 ± 5	17 ± 4
10/31/07 - 11/08/07	20 ± 4	17 ± 4	18 ± 4	17 ± 4	18 ± 4	18 ± 4	20 ± 4	20 ± 4	16 ± 4
11/08/07 - 11/15/07	31 ± 5	31 ± 5	35 ± 5	29 ± 5	27 ± 5	30 ± 5	33 ± 5	31 ± 5	34 ± 5
11/15/07 - 11/21/07	20 ± 5	24 ± 5	27 ± 6	31 ± 6	24 ± 5	28 ± 6	30 ± 6	28 ± 6	22 ± 5
11/21/07 - 11/29/07	27 ± 4	26 ± 4	28 ± 4	22 ± 4	28 ± 4	27 ± 4	26 ± 4	27 ± 4	24 ± 4
11/29/07 - 12/06/07	23 ± 5	24 ± 5	26 ± 5	23 ± 5	22 ± 5	25 ± 5	28 ± 5	24 ± 5	26 ± 5
12/06/07 - 12/13/07	36 ± 5	41 ± 6	38 ± 5	40 ± 5	38 ± 5	40 ± 5	45 ± 6	29 ± 5	38 ± 5
12/13/07 - 12/20/07	42 ± 6	36 ± 5	35 ± 5	47 ± 6	43 ± 6	44 ± 6	46 ± 6	38 ± 5	44 ± 6
12/20/07 - 12/27/07	24 ± 5	30 ± 5	35 ± 6	33 ± 5	36 ± 6	36 ± 6	38 ± 6	37 ± 6	36 ± 6
12/27/07 - 01/03/08	25 ± 5	37 ± 5	39 ± 6	37 ± 5	35 ± 5	37 ± 5	39 ± 6	38 ± 6	39 ± 6
MEAN*	21 ± 13	21 ± 14	22 ± 14	23 ± 16	22 ± 13	22 ± 16	22 ± 16	23 ± 13	22 ± 15

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-V.2 MONTHLY AND YEARLY MEAN VALUES OF GROSS BETA CONCENTRATIONS (E-3 PCI/CU METER) IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

GROUP I - NEAR-SITE LOCATIONS				GROUP II - FAR-FIELD LOCATIONS				GROUP III - FAR-FIELD LOCATIONS				GROUP IV - CONTROL LOCATION			
COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD	COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD	COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD	COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD
12/28/06 - 02/01/07	15	35	22 ± 14	12/28/06 - 02/01/07	17	38	24 ± 13	12/28/06 - 02/01/07	14	36	24 ± 14	12/28/06 - 02/01/07	16	31	23 ± 11
02/01/07 - 03/01/07	10	27	18 ± 11	02/01/07 - 03/01/07	15	25	19 ± 7	02/01/07 - 03/01/07	10	26	20 ± 10	02/01/07 - 03/01/07	12	25	17 ± 15
03/01/07 - 03/29/07	10	19	16 ± 7	03/01/07 - 03/29/07	9	20	16 ± 8	03/01/07 - 03/29/07	12	22	17 ± 5	03/01/07 - 03/29/07	10	21	16 ± 9
03/29/07 - 05/03/07	12	20	15 ± 5	03/29/07 - 05/03/07	11	22	16 ± 7	03/29/07 - 05/03/07	11	20	16 ± 6	03/29/07 - 05/03/07	16	20	18 ± 4
05/03/07 - 05/31/07	15	25	19 ± 6	05/03/07 - 05/31/07	14	24	19 ± 6	05/03/07 - 05/31/07	16	23	20 ± 4	05/03/07 - 05/31/07	13	21	18 ± 7
05/31/07 - 06/28/07	14	29	20 ± 11	05/31/07 - 06/28/07	11	27	19 ± 13	05/31/07 - 06/28/07	12	26	20 ± 9	05/31/07 - 06/28/07	11	28	20 ± 15
06/28/07 - 08/02/07	10	26	18 ± 11	06/28/07 - 08/02/07	12	34	21 ± 13	06/28/07 - 08/02/07	11	29	20 ± 12	06/28/07 - 08/02/07	14	28	21 ± 12
08/02/07 - 08/30/07	17	27	22 ± 7	08/02/07 - 08/30/07	15	37	24 ± 15	08/02/07 - 08/30/07	14	30	23 ± 11	08/02/07 - 08/30/07	20	31	25 ± 9
08/30/07 - 09/27/07	16	28	24 ± 9	08/30/07 - 09/27/07	13	33	24 ± 13	08/30/07 - 09/27/07	11	34	24 ± 14	08/30/07 - 09/27/07	13	32	25 ± 16
09/27/07 - 10/31/07	16	29	21 ± 9	09/27/07 - 10/31/07	16	36	24 ± 14	09/27/07 - 10/31/07	15	34	23 ± 10	09/27/07 - 10/31/07	17	31	21 ± 12
10/31/07 - 11/29/07	17	31	24 ± 11	10/31/07 - 11/29/07	17	35	26 ± 12	10/31/07 - 11/29/07	18	33	26 ± 9	10/31/07 - 11/29/07	16	34	24 ± 15
11/29/07 - 01/03/08	23	42	32 ± 15	11/29/07 - 01/03/08	23	47	35 ± 14	11/29/07 - 01/03/08	22	46	36 ± 14	11/29/07 - 01/03/08	26	44	37 ± 13
12/28/06 - 01/03/08	10	42	21 ± 13	12/28/06 - 01/03/08	9	47	22 ± 15	12/28/06 - 01/03/08	10	46	22 ± 15	12/28/06 - 01/03/08	10	44	22 ± 15

TABLE C-V.3 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-01	12/28/06 - 03/29/07	< 1	< 2	< 5	< 1	< 2	< 2	< 2	< 1	< 1	< 197	< 90
	03/29/07 - 06/28/07	< 5	< 10	< 37	< 4	< 9	< 11	< 20	< 4	< 2	< 6740	< 2500
	06/28/07 - 09/27/07	< 3	< 5	< 19	< 2	< 7	< 6	< 9	< 4	< 2	< 873	< 280
	09/27/07 - 01/03/08	< 3	< 4	< 13	< 2	< 6	< 6	< 10	< 2	< 2	< 594	< 215
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-03	12/28/06 - 03/29/07	< 2	< 3	< 14	< 2	< 6	< 4	< 6	< 2	< 2	< 502	< 185
	03/29/07 - 06/28/07	< 5	< 9	< 35	< 3	< 14	< 13	< 18	< 4	< 3	< 6570	< 3660
	06/28/07 - 09/27/07	< 3	< 5	< 27	< 4	< 11	< 8	< 16	< 4	< 3	< 967	< 167
	09/27/07 - 01/03/08	< 3	< 4	< 20	< 3	< 9	< 6	< 12	< 3	< 2	< 700	< 359
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-04	12/28/06 - 03/29/07	< 2	< 5	< 16	< 2	< 7	< 5	< 9	< 2	< 2	< 656	< 279
	03/29/07 - 06/28/07	< 3	< 7	< 40	< 3	< 10	< 12	< 18	< 4	< 3	< 5210	< 2250
	06/28/07 - 09/27/07	< 3	< 6	< 15	< 3	< 10	< 6	< 11	< 4	< 2	< 835	< 386
	09/27/07 - 01/03/08	< 3	< 5	< 11	< 3	< 7	< 4	< 9	< 3	< 2	< 597	< 210
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-05	12/28/06 - 03/29/07	< 2	< 3	< 14	< 1	< 5	< 6	< 8	< 2	< 2	< 612	< 222
	03/29/07 - 06/28/07	< 3	< 5	< 24	< 3	< 8	< 5	< 13	< 2	< 2	< 4780	< 2670
	06/28/07 - 09/27/07	< 3	< 5	< 23	< 4	< 8	< 7	< 10	< 4	< 3	< 1020	< 428
	09/27/07 - 01/03/08	< 3	< 6	< 23	< 3	< 10	< 7	< 11	< 3	< 3	< 800	< 233
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-V.3 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-06	12/28/06 - 03/29/07	< 3	< 5	< 11	< 2	< 6	< 5	< 9	< 2	< 3	< 689	< 251
	03/29/07 - 06/28/07	< 4	< 11	< 41	< 3	< 8	< 9	< 17	< 3	< 2	< 5190	< 2790
	06/28/07 - 09/27/07	< 6	< 7	< 24	< 3	< 11	< 10	< 16	< 6	< 4	< 1320	< 437
	09/27/07 - 01/03/08	< 3	< 7	< 21	< 3	< 8	< 6	< 10	< 3	< 3	< 812	< 409
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-07	12/28/06 - 03/29/07	< 3	< 5	< 14	< 1	< 5	< 4	< 9	< 2	< 2	< 598	< 178
	03/29/07 - 06/28/07	< 4	< 9	< 38	< 3	< 10	< 11	< 20	< 5	< 4	< 7110	< 2650
	06/28/07 - 09/27/07	< 8	< 13	< 53	< 9	< 26	< 17	< 33	< 11	< 7	< 2230	< 878
	09/27/07 - 01/03/08	< 3	< 5	< 14	< 2	< 8	< 5	< 8	< 3	< 2	< 711	< 240
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-08	12/28/06 - 03/29/07	< 2	< 5	< 15	< 2	< 6	< 4	< 8	< 2	< 2	< 704	< 232
	03/29/07 - 06/28/07	< 5	< 11	< 26	< 2	< 10	< 11	< 16	< 4	< 3	< 5360	< 1610
	06/28/07 - 09/27/07	< 3	< 5	< 17	< 4	< 8	< 7	< 11	< 4	< 2	< 895	< 255
	09/27/07 - 01/03/08	< 3	< 5	< 19	< 2	< 6	< 5	< 8	< 3	< 2	< 722	< 294
	MEAN	-	-	-	-	-	-	-	-	-	-	-
L-10	12/28/06 - 03/29/07	< 3	< 6	< 14	< 1	< 6	< 5	< 7	< 2	< 2	< 578	< 215
	03/29/07 - 06/28/07	< 3	< 7	< 25	< 2	< 8	< 8	< 14	< 3	< 2	< 6130	< 1680
	06/28/07 - 09/27/07	< 4	< 8	< 22	< 3	< 12	< 6	< 10	< 4	< 4	< 1000	< 508
	09/27/07 - 01/03/08	< 3	< 5	< 18	< 3	< 10	< 6	< 10	< 3	< 2	< 826	< 454
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-V.3 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-11	12/28/06 - 03/29/07	< 2	< 4	< 12	< 2	< 6	< 4	< 7	< 2	< 2	< 562	< 212
	03/29/07 - 06/28/07	< 4	< 11	< 29	< 4	< 14	< 10	< 16	< 4	< 3	< 6730	< 2160
	06/28/07 - 09/27/07	< 3	< 7	< 14	< 4	< 9	< 9	< 12	< 5	< 4	< 1340	< 395
	09/27/07 - 01/03/08	< 3	< 6	< 22	< 4	< 7	< 6	< 11	< 3	< 3	< 946	< 291
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-VI.1 CONCENTRATIONS OF I-131 IN AIR IODINE SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

COLLECTION PERIOD	GROUP I		GROUP II		GROUP III				GROUP IV
	L-03	L-05	L-01	L-06	L-04	L-07	L-08	L-11	L-10
12/28/06 - 01/04/07	< 19	< 18	< 18	< 13	< 18	< 29	< 29	< 29	< 29
01/04/07 - 01/11/07	< 61	< 57	< 47	< 59	< 59	< 68	< 69	< 67	< 68
01/11/07 - 01/18/07	< 36	< 34	< 35	< 41	< 35	< 40	< 43	< 23	< 41
01/18/07 - 01/25/07	< 64	< 60	< 31	< 62	< 62	< 67	< 69	< 69	< 69
01/25/07 - 02/01/07	< 57	< 54	< 41	< 55	< 55	< 59	< 59	< 60	< 61
02/01/07 - 02/08/07	< 54	< 51	< 53	< 29	< 53	< 45	< 46	< 46	< 46
02/08/07 - 02/15/07	< 62	< 56	< 59	< 32	< 59	< 62	< 62	< 60	< 62
02/15/07 - 02/23/07	< 22	< 48	< 50	< 38	< 49	< 39	< 38	< 38	(1)
02/23/07 - 03/01/07	< 41	< 39	< 40	< 26	< 39	< 66	< 66	< 66	< 66
03/01/07 - 03/07/07	< 62	< 57	< 60	< 60	< 56	< 55	< 55	< 55	< 55
03/07/07 - 03/15/07	< 24	< 23	< 23	< 12	< 23	< 30	< 30	< 30	< 30
03/15/07 - 03/22/07	< 69	< 65	< 65	< 36	< 65	< 60	< 60	< 60	< 60
03/22/07 - 03/29/07	< 63	< 60	< 62	< 34	< 64	< 55	< 55	< 54	< 54
03/29/07 - 04/05/07	< 44	< 34	< 53	< 43	< 42	< 55	< 54	< 54	< 54
04/05/07 - 04/12/07	< 54	< 51	< 64	< 46	< 52	< 47	< 47	< 28	< 46
04/12/07 - 04/19/07	< 42	< 40	< 41	< 41	< 41	< 31	< 40	< 39	< 42
04/19/07 - 04/26/07	< 25	< 23	< 13	< 24	< 24	< 48	< 49	< 48	< 48
04/26/07 - 05/03/07	< 66	< 63	< 63	< 64	< 63	< 65	< 65	< 65	< 65
05/03/07 - 05/09/07	< 69	< 64	< 66	< 43	< 64	< 45	< 24	< 43	< 43
05/09/07 - 05/17/07	< 27	< 25	< 26	< 14	< 26	< 24	< 24	< 24	< 24
05/17/07 - 05/24/07	< 26	< 24	< 25	< 19	< 25	< 25	< 25	< 25	< 25
05/24/07 - 05/31/07	< 67	< 63	< 64	< 32	< 64	< 48	< 48	< 47	< 47
05/31/07 - 06/07/07	< 16	< 15	< 15	< 8	< 15	< 15	< 15	< 15	< 15
06/07/07 - 06/14/07	< 41	< 41	< 41	< 27	< 41	< 36	< 37	< 37	< 37
06/14/07 - 06/21/07	< 41	< 41	< 41	< 41	< 22	< 34	< 34	< 33	< 33
06/21/07 - 06/28/07	< 20	< 21	< 20	< 11	< 20	< 25	< 25	< 25	< 25
06/28/07 - 07/05/07	< 32	< 32	< 32	< 17	< 32	< 46	< 49	< 49	< 49
07/05/07 - 07/12/07	< 41	< 41	< 41	< 66	< 41	< 41	< 40	< 23	< 41
07/12/07 - 07/19/07	< 33	< 39	< 32	< 16	< 32	< 29	< 24	< 28	< 23
07/19/07 - 07/26/07	< 56	< 59	< 57	< 44	< 56	(1)	< 68	< 68	< 68
07/26/07 - 08/02/07	< 55	< 55	< 55	< 64	< 55	(1)	< 65	< 65	< 65
08/02/07 - 08/08/07	< 30	< 31	< 19	< 61	< 31	(1)	< 57	< 57	< 57
08/08/07 - 08/15/07	< 53	< 33	< 53	(1)	< 53	(1)	< 30	< 29	< 29
08/15/07 - 08/23/07	< 68	< 68	< 68	< 68	< 67	(1)	< 69	< 69	< 69
08/23/07 - 08/30/07	< 42	< 43	< 43	< 41	< 43	(1)	< 43	< 42	< 23
08/30/07 - 09/06/07	< 59	< 59	< 59	< 54	< 59	(1)	< 54	< 54	< 54
09/06/07 - 09/13/07	< 53	< 53	< 53	< 41	< 53	< 62	< 21	< 41	< 41
09/13/07 - 09/20/07	< 50	< 50	< 33	< 50	< 50	< 46	< 46	< 46	< 46
09/20/07 - 09/27/07	< 62	< 62	< 52	< 62	< 62	< 68	< 68	< 68	< 68
09/27/07 - 10/04/07	< 57	< 58	< 35	< 58	< 57	< 67	< 66	< 65	< 65
10/04/07 - 10/11/07	< 68	< 68	< 54	< 67	< 67	< 66	< 66	< 66	< 66
10/11/07 - 10/18/07	< 25	< 42	< 42	< 42	< 42	< 55	< 55	< 55	< 55
10/18/07 - 10/24/07	< 63	< 63	< 63	< 45	< 63	< 68	< 68	< 66	< 66
10/24/07 - 10/31/07	< 59	< 59	< 58	< 58	< 32	< 33	< 32	< 32	< 33
10/31/07 - 11/08/07	< 26	< 31	< 26	< 32	< 26	< 33	< 30	< 28	< 30
11/08/07 - 11/15/07	< 64	< 64	< 64	< 43	< 64	< 69	< 69	< 69	< 69
11/15/07 - 11/21/07	< 51	< 51	< 50	< 25	< 50	< 59	< 59	< 57	< 59
11/21/07 - 11/29/07	< 34	< 34	< 34	< 23	< 34	< 46	< 46	< 45	< 46
11/29/07 - 12/06/07	< 54	< 53	< 23	< 54	< 54	< 53	< 53	< 53	< 53
12/06/07 - 12/13/07	< 40	< 40	< 30	< 40	< 40	< 31	< 47	< 47	< 47
12/13/07 - 12/20/07	< 28	< 28	< 15	< 27	< 27	< 28	< 28	< 28	< 28
12/20/07 - 12/27/07	< 59	< 59	< 33	< 59	< 59	< 52	< 52	< 51	< 51
12/27/07 - 01/03/08	< 43	< 43	< 24	< 44	< 44	< 36	< 36	< 36	< 37
MEAN	-	-	-	-	-	-	-	-	-

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-VII.1 **CONCENTRATIONS OF I-131 IN MILK SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

	CONTROL DAIRY
COLLECTION PERIOD	L-42
01/04/07	< 0.8
02/01/07	< 0.4
03/01/07	< 0.6
04/05/07	< 0.7
05/04/07	< 0.6
05/18/07	< 0.5
06/01/07	< 0.6
06/15/07	< 0.6
06/29/07	< 0.7
07/13/07	< 0.6
07/27/07	< 0.5
08/08/07	< 0.5
08/24/07	< 0.8
09/06/07	< 0.5
09/21/07	< 0.4
10/05/07	< 0.7
10/19/07	< 0.7
11/01/07	< 0.9
12/06/07	< 0.7
MEAN	-

TABLE C-VII.2 CONCENTRATIONS OF GAMMA EMITTERS IN MILK SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
L-42	01/04/07	< 7	< 7	< 16	< 9	< 17	< 7	< 11	< 6	< 6	< 29	< 12
	02/01/07	< 6	< 10	< 18	< 8	< 21	< 8	< 15	< 7	< 8	< 39	< 15
	03/01/07	< 5	< 5	< 13	< 5	< 13	< 5	< 8	< 4	< 6	< 23	< 7
	04/05/07	< 5	< 5	< 13	< 6	< 12	< 5	< 9	< 5	< 5	< 29	< 10
	05/04/07	< 4	< 5	< 11	< 5	< 10	< 5	< 8	< 4	< 5	< 31	< 7
	05/18/07	< 5	< 5	< 11	< 5	< 11	< 5	< 8	< 4	< 5	< 23	< 6
	06/01/07	< 5	< 6	< 14	< 5	< 11	< 6	< 9	< 5	< 5	< 40	< 12
	06/15/07	< 4	< 5	< 12	< 4	< 12	< 5	< 9	< 4	< 4	< 44	< 13
	06/29/07	< 5	< 3	< 12	< 5	< 10	< 5	< 9	< 3	< 4	< 35	< 13
	07/13/07	< 6	< 6	< 15	< 7	< 14	< 7	< 11	< 5	< 6	< 38	< 9
	07/27/07	< 6	< 5	< 16	< 6	< 14	< 7	< 12	< 5	< 6	< 38	< 13
	08/08/07	< 6	< 6	< 13	< 7	< 13	< 7	< 11	< 5	< 6	< 35	< 12
	08/24/07	< 4	< 4	< 11	< 3	< 9	< 5	< 9	< 4	< 3	< 37	< 14
	09/06/07	< 8	< 9	< 22	< 9	< 19	< 7	< 14	< 7	< 7	< 43	< 15
	09/21/07	< 4	< 5	< 11	< 5	< 12	< 5	< 9	< 4	< 5	< 27	< 7
	10/05/07	< 7	< 8	< 17	< 8	< 16	< 7	< 10	< 7	< 8	< 45	< 13
	10/19/07	< 2	< 2	< 6	< 2	< 5	< 2	< 4	< 2	< 2	< 18	< 6
	11/01/07	< 7	< 7	< 19	< 8	< 17	< 8	< 11	< 6	< 6	< 44	< 14
	12/06/07	< 6	< 8	< 19	< 6	< 17	< 8	< 14	< 6	< 7	< 54	< 13
	MEAN	-	-	-	-	-	-	-	-	-	-	-

TABLE C-VIII.1 **CONCENTRATIONS OF GAMMA EMITTERS IN FOOD PRODUCT SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
L-CONTROL													
Cabbage	09/08/07	< 11	< 7	< 31	< 16	< 28	< 12	< 15	< 23	< 10	< 16	< 59	< 23
Onions	09/08/07	< 19	< 15	< 44	< 27	< 45	< 25	< 48	< 59	< 20	< 20	< 133	< 23
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
L-QUAD 1													
Horseradish	08/30/07	< 8	< 10	< 23	< 8	< 19	< 9	< 15	< 54	< 7	< 7	< 89	< 23
Horseradish leaves	08/30/07	< 9	< 11	< 29	< 10	< 24	< 10	< 18	< 46	< 8	< 9	< 80	< 25
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
L-QUAD 2													
Beet greens	08/30/07	< 11	< 15	< 46	< 13	< 31	< 17	< 29	< 50	< 9	< 13	< 279	< 80
Beets	08/30/07	< 7	< 8	< 22	< 8	< 19	< 10	< 16	< 52	< 7	< 8	< 89	< 26
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
L-QUAD 3													
Beet greens	08/30/07	< 11	< 12	< 34	< 10	< 27	< 13	< 22	< 57	< 9	< 11	< 99	< 31
Beets	08/30/07	< 10	< 12	< 31	< 11	< 26	< 12	< 21	< 60	< 9	< 10	< 110	< 31
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
L-QUAD 4													
Beets	08/30/07	< 7	< 8	< 18	< 6	< 16	< 8	< 13	< 50	< 6	< 7	< 79	< 23
Cabbage	08/30/07	< 4	< 5	< 13	< 4	< 10	< 5	< 8	< 29	< 3	< 4	< 44	< 13
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-IX.1 QUARTERLY TLD RESULTS FOR LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF MILLI-ROETGEN/QUARTER ± 2 STANDARD DEVIATIONS

STATION CODE	MEAN ±- 2 S.D.	JAN - MAR	APR - JUN	JUL - SEP	OCT - DEC
L-01-1	24.0 ± 3.7	26	22	23	25
L-01-2	23.8 ± 4.4	26	21	23	25
L-03-1	23.3 ± 3.4	24	21	23	25
L-03-2	23.5 ± 3.5	23	22	23	26
L-04-1	22.8 ± 3.0	22	22	22	25
L-04-2	21.0 ± 2.8	21	20	20	23
L-05-1	22.8 ± 4.4	25	20	22	24
L-05-2	22.3 ± 6.4	21	20	21	27
L-06-1	23.3 ± 3.0	22	24	22	25
L-06-2	22.3 ± 3.8	21	21	22	25
L-07-1	22.8 ± 4.4	24	22	20	25
L-07-2	23.0 ± 5.2	22	20	24	26
L-08-1	22.5 ± 4.2	23	22	20	25
L-08-2	21.8 ± 3.4	22	20	21	24
L-10-1	20.0 ± 4.3	20	18	19	23
L-10-2	19.3 ± 3.4	20	17	19	21
L-11-1	20.3 ± 4.4	21	18	19	23
L-11-2	20.8 ± 1.9	20	20	22	21
L-101-1	23.3 ± 4.4	22	21	24	26
L-101-2	23.0 ± 4.3	23	21	22	26
L-102-1	26.5 ± 2.0	27	25	27	27
L-102-2	24.3 ± 2.5	24	23	24	26
L-103-1	23.5 ± 3.5	24	21	25	24
L-103-2	23.3 ± 2.5	23	22	23	25
L-104-1	23.3 ± 4.1	21	22	25	25
L-104-2	21.8 ± 4.1	22	19	22	24
L-105-1	24.5 ± 4.8	23	22	26	27
L-105-2	24.5 ± 4.2	24	22	27	25
L-106-1	22.3 ± 3.8	22	21	21	25
L-106-2	23.3 ± 4.7	25	20	25	23
L-107-1	23.5 ± 3.5	24	21	25	24
L-107-2	24.0 ± 3.7	22	23	25	26
L-108-1	22.5 ± 3.5	22	21	22	25
L-108-2	20.0 ± 3.7	22	18	19	21
L-109-1	23.8 ± 3.0	23	22	25	25
L-109-2	23.8 ± 4.4	23	22	23	27
L-110-1	23.5 ± 2.0	23	23	23	25
L-110-2	24.3 ± 3.0	23	23	25	26
L-112-1	22.8 ± 4.7	23	21	21	26
L-112-2	26.0 ± 4.0	25	25	25	29
L-114-1	24.0 ± 2.3	25	23	23	25
L-114-2	24.3 ± 2.5	24	23	26	24
L-115-1	22.5 ± 3.5	23	20	23	24
L-115-2	21.5 ± 2.0	21	21	23	21
L-116-1	21.5 ± 2.0	21	21	21	23
L-116-2	22.3 ± 3.8	22	21	21	25

TABLE C-IX.1 QUARTERLY TLD RESULTS FOR LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF MILLI-ROETGEN/QUARTER ± 2 STANDARD DEVIATIONS

STATION CODE	MEAN ±- 2 S.D.	JAN - MAR	APR - JUN	JUL - SEP	OCT - DEC
L-201-3	20.8 ± 4.4	22	18	20	23
L-201-4	24.3 ± 1.9	24	23	25	25
L-202-3	21.8 ± 5.3	24	19	20	24
L-202-4	20.8 ± 4.4	20	19	20	24
L-203-1	23.0 ± 3.7	25	22	21	24
L-203-2	23.5 ± 3.5	21	24	25	24
L-204-1	25.3 ± 3.8	24	25	28	24
L-204-2	23.0 ± 2.8	23	22	22	25
L-205-1	23.8 ± 3.0	22	23	25	25
L-205-2	25.3 ± 4.1	23	25	25	28
L-205-3	23.8 ± 2.5	24	22	25	24
L-205-4	22.3 ± 3.0	24	21	21	23
L-206-1	23.0 ± 2.8	21	23	24	24
L-206-2	24.0 ± 6.3	22	21	25	28
L-207-1	24.8 ± 5.5	26	22	23	28
L-207-2	23.8 ± 3.4	26	23	22	24
L-208-1	24.8 ± 1.9	25	24	26	24
L-208-2	24.0 ± 3.7	23	22	26	25
L-209-1	23.3 ± 4.1	22	21	25	25
L-209-2	23.5 ± 2.6	22	24	23	25
L-210-1	24.8 ± 4.4	24	22	27	26
L-210-2	25.8 ± 4.4	29	25	24	25
L-211-1	24.5 ± 6.0	23	23	23	29
L-211-2	26.0 ± 3.7	27	24	25	28
L-212-1	24.8 ± 4.1	25	22	25	27
L-212-2	24.0 ± 2.8	24	22	25	25
L-213-3	22.3 ± 2.5	22	21	22	24
L-213-4	27.5 ± 25	21	21	22	24
L-214-3	25.3 ± 6.8	22	30	25	24
L-214-4	27.8 ± 18	23	21	26	28
L-215-3	25.8 ± 1.0	26	26	26	25
L-215-4	25.0 ± 1.6	24	25	25	26
L-216-3	24.0 ± 4.3	24	23	22	27
L-216-4	22.5 ± 6.8	26	24	22	18
L-111B-1	24.8 ± 4.1	23	23	26	27
L-111B-2	24.0 ± 3.7	23	22	26	25
L-113A-1	25.0 ± 2.8	23	26	26	25
L-113A-2	24.0 ± 2.3	23	23	25	25

TABLE C-IX.2 MEAN QUARTERLY TLD RESULTS FOR THE INNER RING, OUTER RING, *OTHER AND CONTROL LOCATIONS FOR LASALLE COUNTY STATION, 2007*

RESULTS IN UNITS OF MILLI-ROETGEN/QUARTER ± 2 STANDARD DEVIATIONS OF THE STATION DATA

COLLECTION PERIOD	INNER RING ± 2 S.D.	OUTER RING	OTHER	CONTROL
JAN-MAR	23.1 ± 2.6	23.6 ± 3.9	22.7 ± 3.7	20.0 ± 0.0
APR-JUN	21.9 ± 3.3	22.7 ± 4.5	20.9 ± 2.8	17.5 ± 1.4
JUL-SEP	23.9 ± 4.0	23.8 ± 4.2	21.7 ± 2.8	19.0 ± 0.0
OCT-DEC	25.0 ± 3.3	25.1 ± 4.1	24.6 ± 2.8	22.0 ± 2.8

TABLE C-IX.3 SUMMARY OF THE AMBIENT DOSIMETRY PROGRAM FOR LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF MILLI-ROENTGEN/QUARTER

LOCATION	SAMPLES ANALYZED	PERIOD MINIMUM	PERIOD MAXIMUM	PERIOD MEAN ± 2 S.D.
INNER RING	128	18	29	23.5 ± 4.0
OUTER RING	136	18	30	23.8 ± 4.5
OTHER	64	18	27	22.5 ± 4.1
CONTROL	8	17	23	19.6 ± 3.7

INNER RING STATIONS - L-101-1, L-101-2, L-102-1, L-102-2, L-103-1, L-103-2, L-104-1, L-104-2, L-105-1, L-105-2, L-106-1, L-106-2, L-107-1, L-107-2, L-108-1, L-108-2, L-109-1, L-109-2, L-110-1, L-110-2, L-111B-1, L-111B-2, L-112-1, L-112-2, L-113A-1, L-113A-2, L-114-1, L-114-2, L-115-1, L-115-2, L-116-1, L-116-2

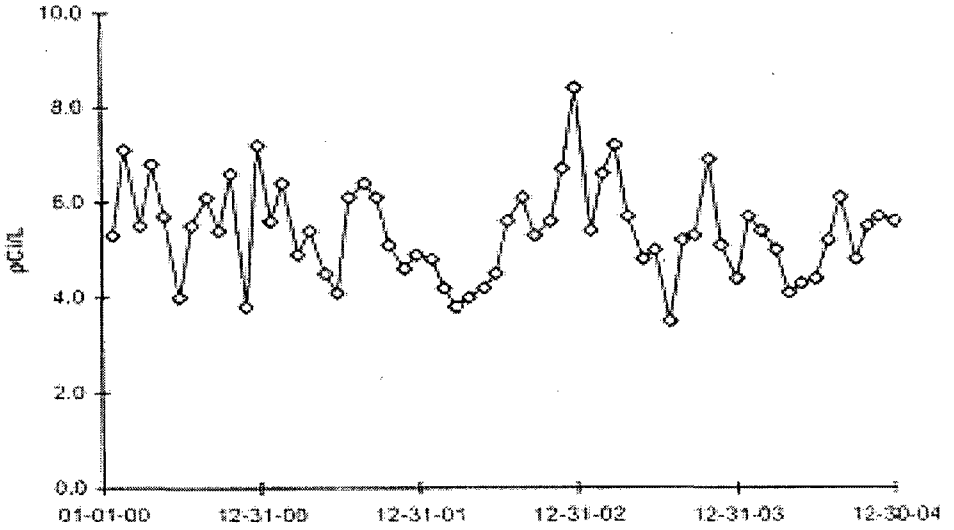
OUTER RING STATIONS - L-201-3, L-201-4, L-202-3, L-202-4, L-203-1, L-203-2, L-204-1, L-204-2, L-205-1, L-205-2, L-205-3, L-205-4, L-206-1, L-206-2, L-207-1, L-207-2, L-208-1, L-208-2, L-209-1, L-209-2, L-210-1, L-210-2, L-211-1, L-211-2, L-212-1, L-212-2, L-213-3, L-213-4, L-214-3, L-214-4, L-215-3, L-215-4, L-216-3, L-216-4

OTHER STATIONS - L-01-1, L-01-2, L-03-1, L-03-2, L-04-1, L-04-2, L-05-1, L-05-2, L-06-1, L-06-2, L-07-1, L-07-2, L-08-1, L-08-2, L-11-1, L-11-2

CONTROL STATIONS - L-10-1, L-10-2

FIGURE C-1
Surface Water - Gross Beta - Station L-21 and L-40
Collected in the Vicinity of LCS, 2000 - 2004

L-21 Illinois River at Seneca



L-40 Illinois River Downstream

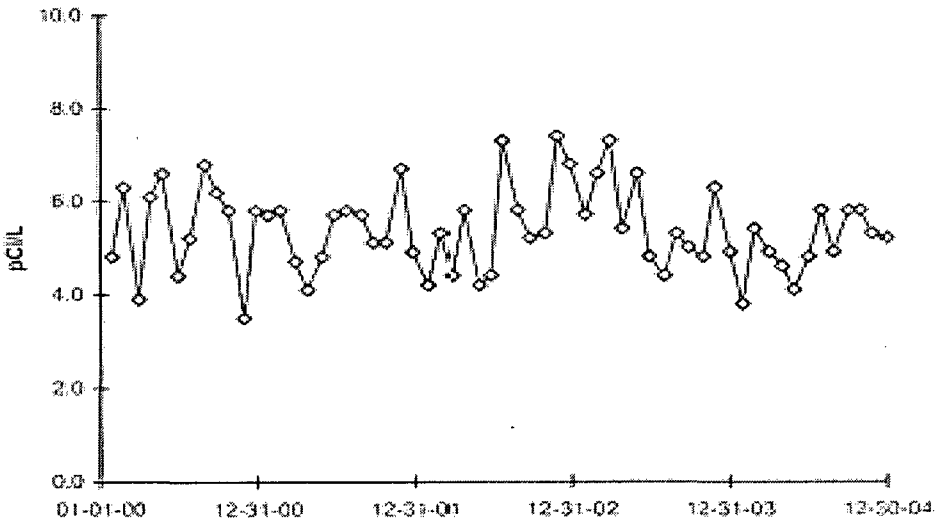
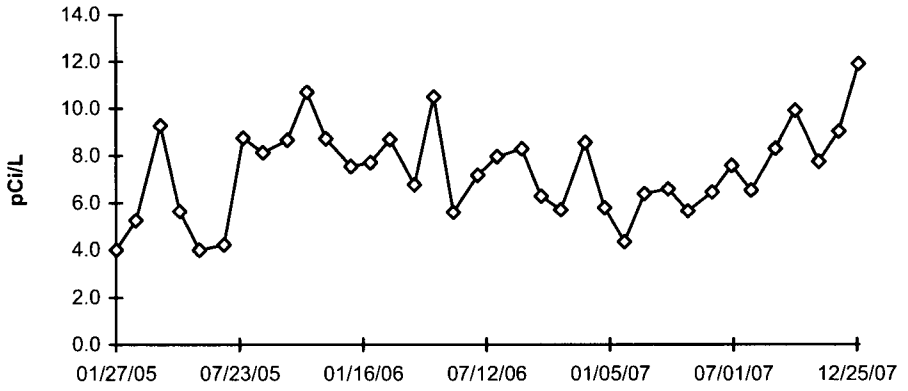
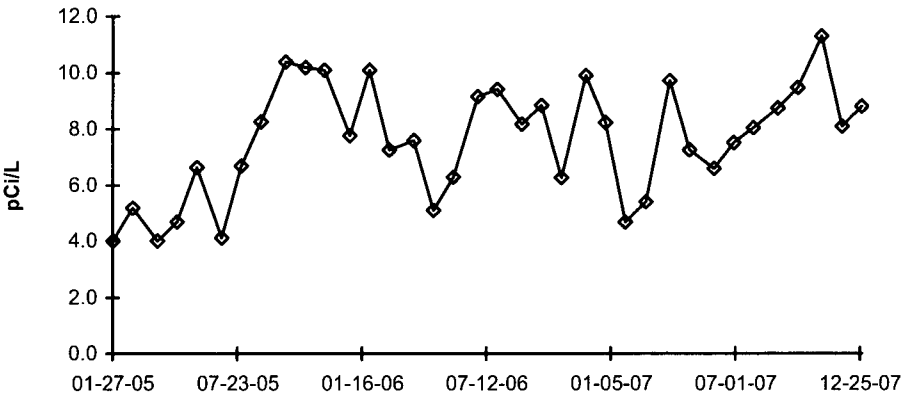


FIGURE C-1 (cont.)
Surface Water - Gross Beta - Station L-21 and L-40
Collected in the Vicinity of LCS, 2005 - 2007

L-21 Illinois River at Seneca



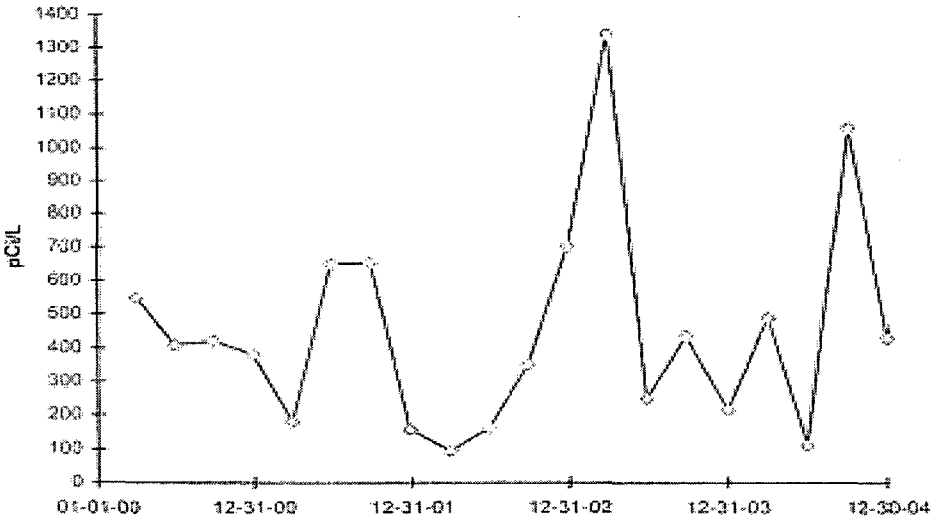
L-40 Illinois River Downstream



DUE TO VENDOR CHANGE IN 2005, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE 2005 AND MDC VALUES AFTER JUNE 2005

FIGURE C-2
Surface Water - Tritium - Station L-21 (C) and L-40 Collected in the Vicinity of LCS, 2000 - 2004

L-21(C) Illinois River at Seneca



L-40 Illinois River Downstream

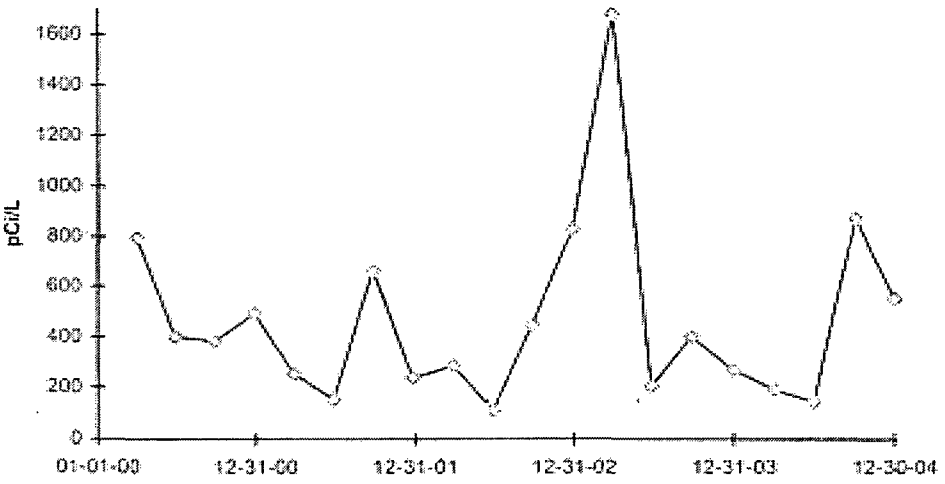
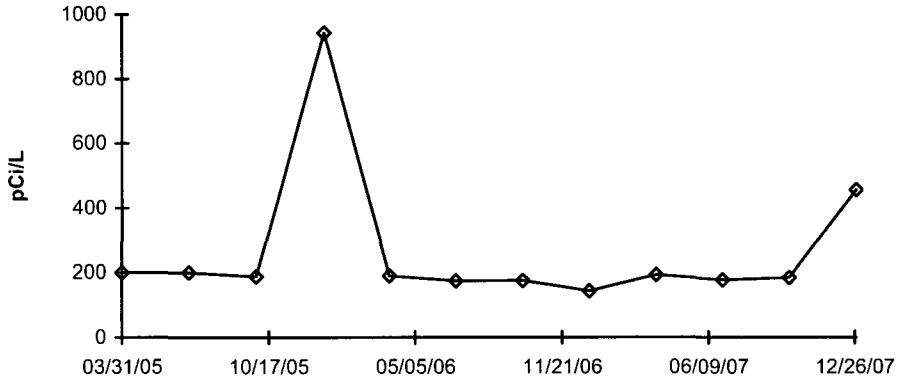
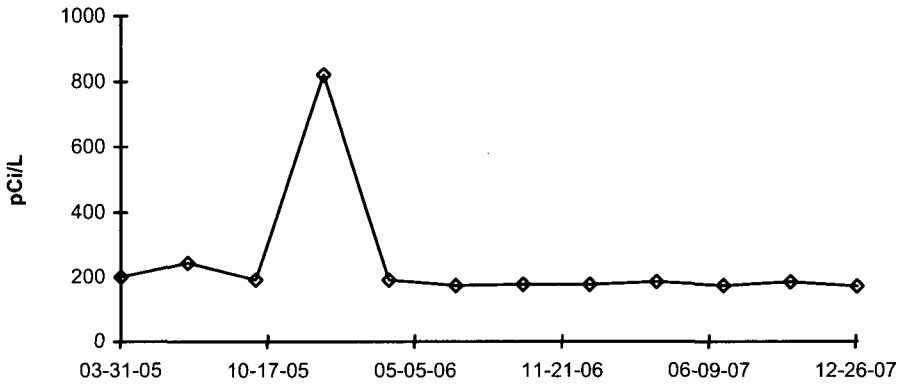


FIGURE C-2 (cont.)
Surface Water - Tritium - Station L-21 (C) and L-40 Collected in the Vicinity of LCS, 2005 - 2007

L-21 Illinois River at Seneca



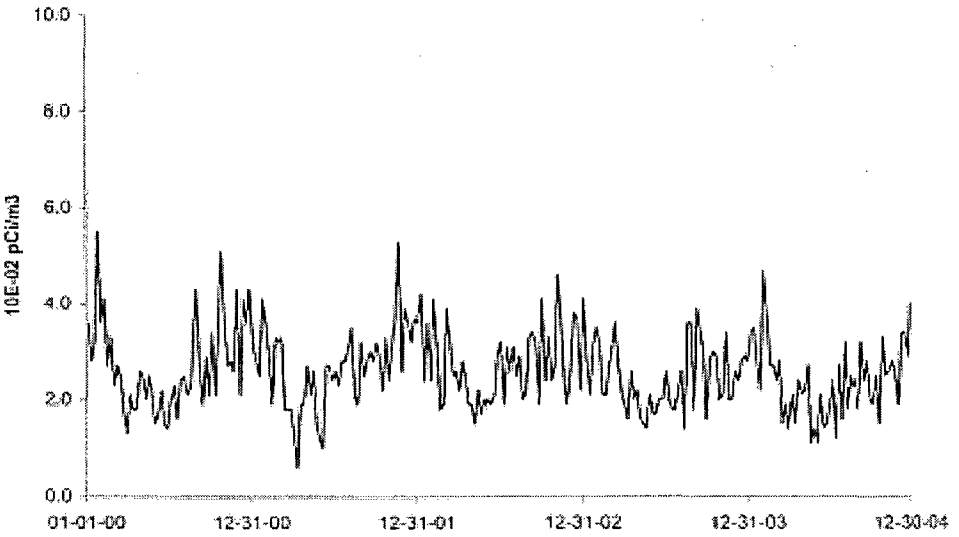
L-40 Illinois River Downstream



DUE TO VENDOR CHANGE IN 2005, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE 2005 AND MDC VALUES AFTER JUNE 2005

FIGURE C-3
Air Particulates - Gross Beta - Stations L-01 and L-03 Collected in the Vicinity of LCS, 2000 - 2004

L-01 Nearsite No. 1



L-03 Onsite No. 3

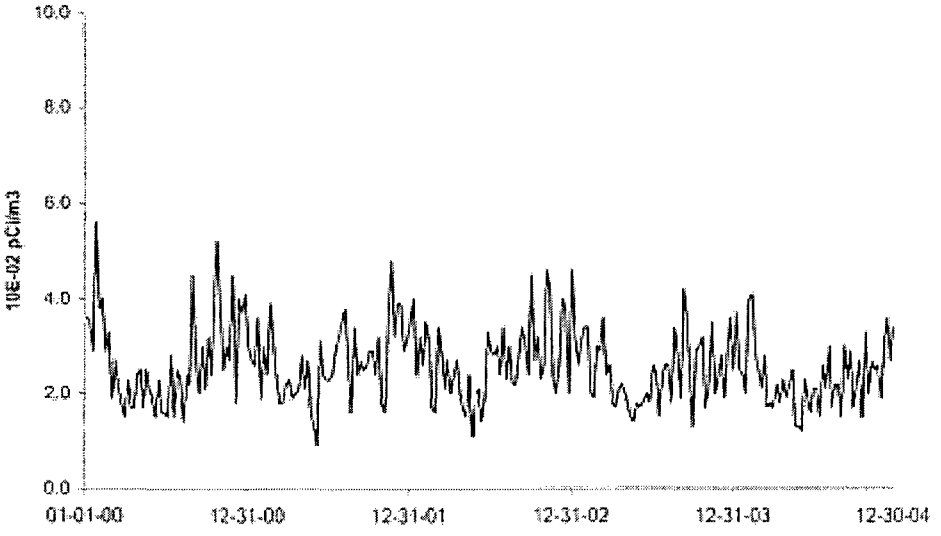
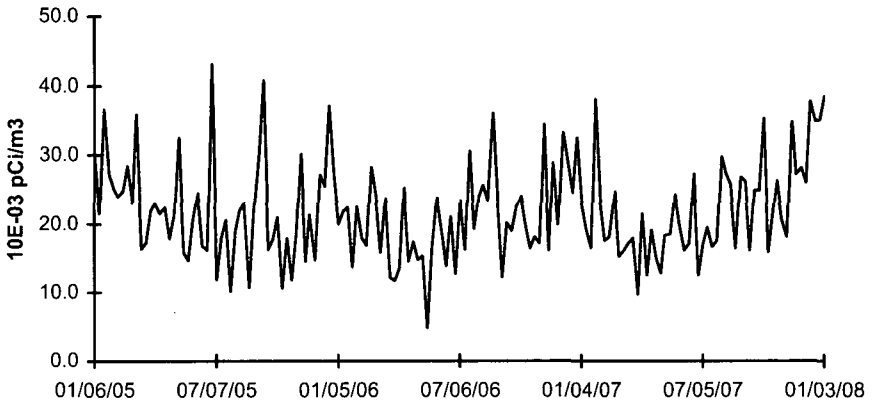
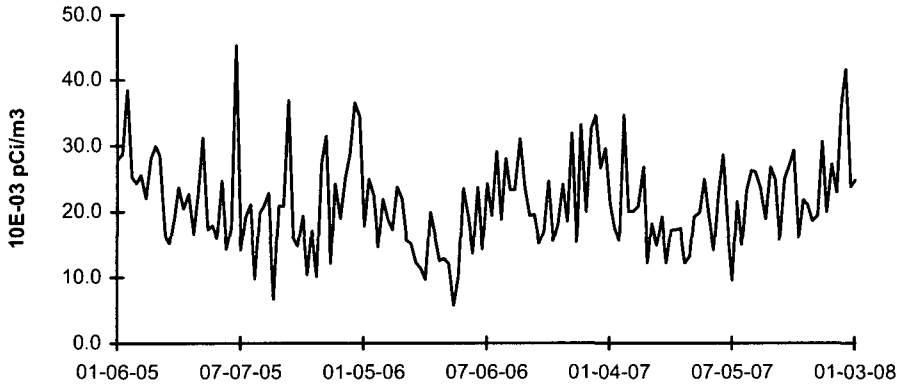


FIGURE C-3 (cont.)
Air Particulates - Gross Beta - Stations L-01 and L-03
Collected in the Vicinity of LCS, 2005 - 2007

L-01 Nearsite No. 1



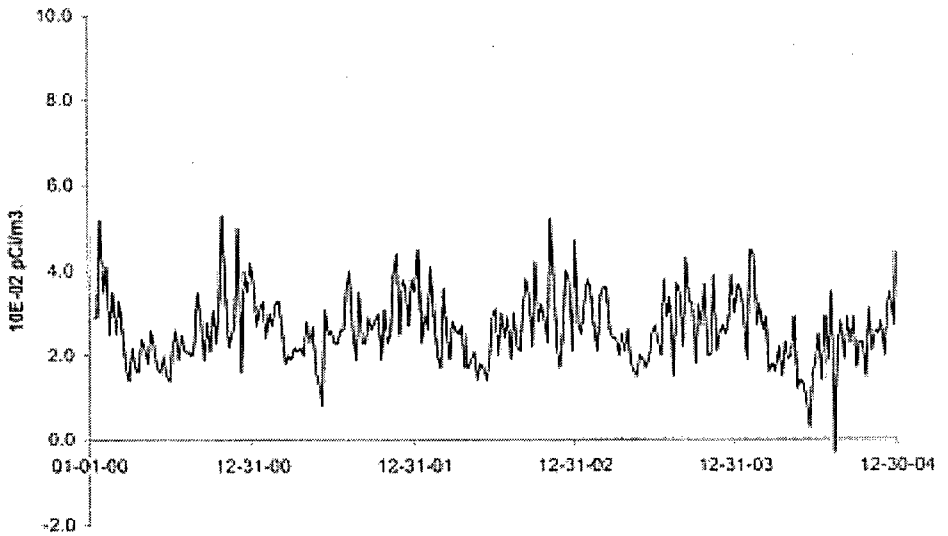
L-03 Onsite No. 3



DUE TO VENDOR CHANGE IN 2005, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-4
Air Particulates - Gross Beta - Stations L-05 and L-06
Collected in the Vicinity of LCS, 2000 - 2004

L-05 Onsite No. 5



L-06 Nearsite No. 6

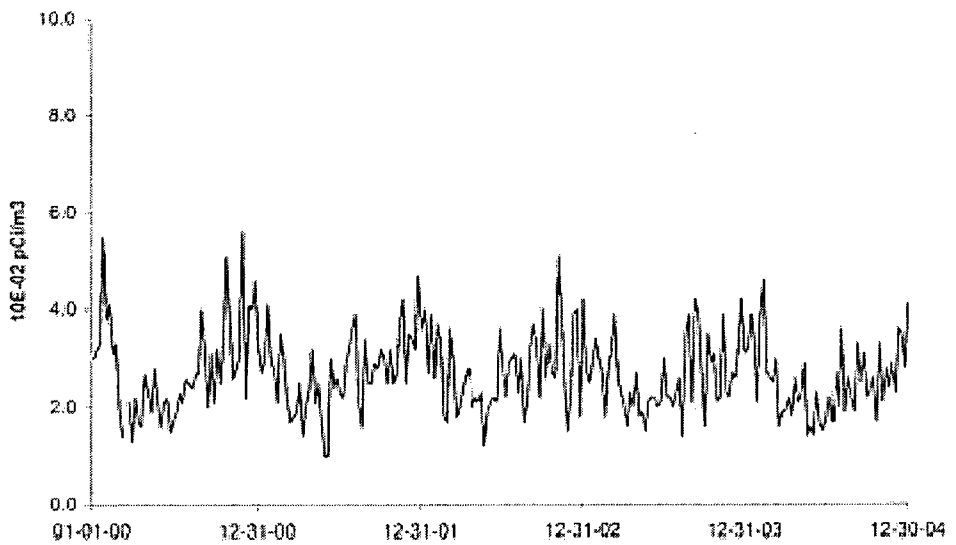
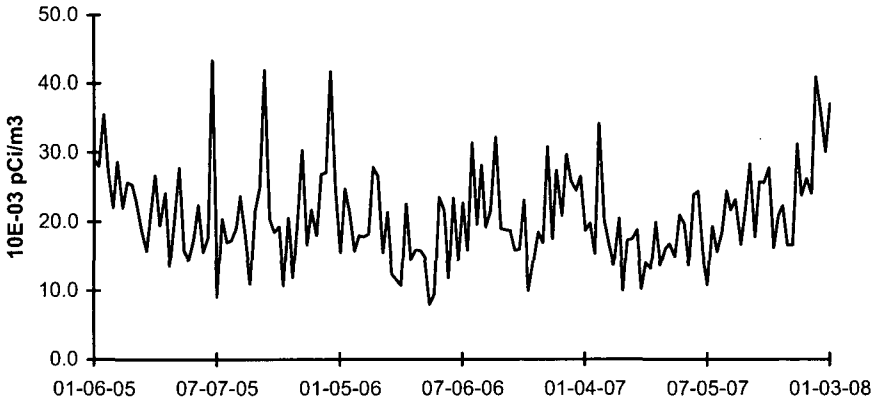
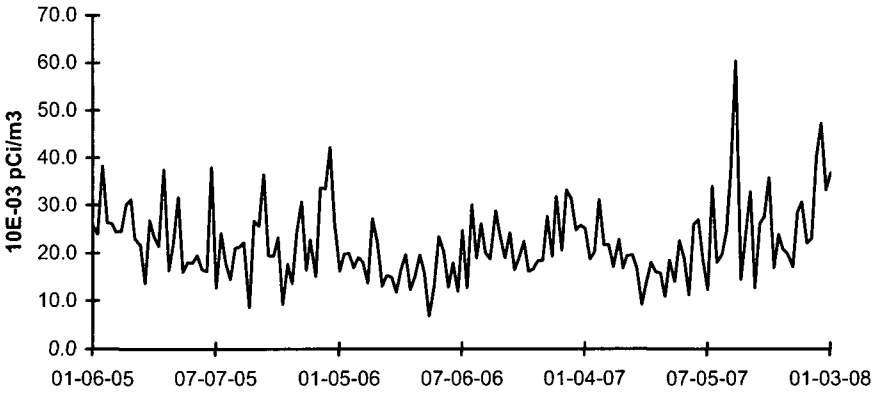


FIGURE C-4 (cont.)
Air Particulates - Gross Beta - Stations L-05 and L-06
Collected in the Vicinity of LCS, 2005 - 2007

L-05 Onsite No. 5



L-06 Nearsite No. 6



DUE TO VENDOR CHANGE IN 2005, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-5
Air Particulates - Gross Beta - Station L-10 (C)
Collected in the Vicinity of LCS, 2000 - 2004

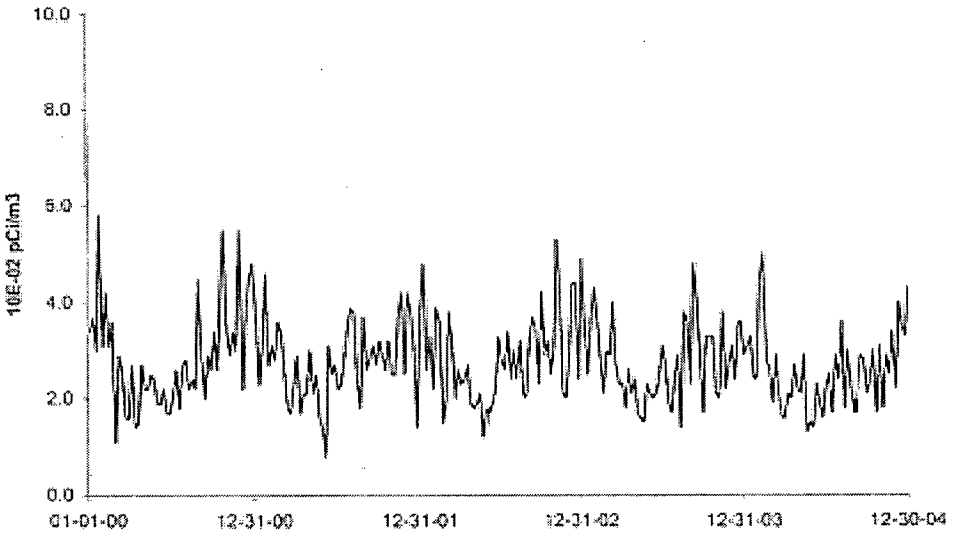
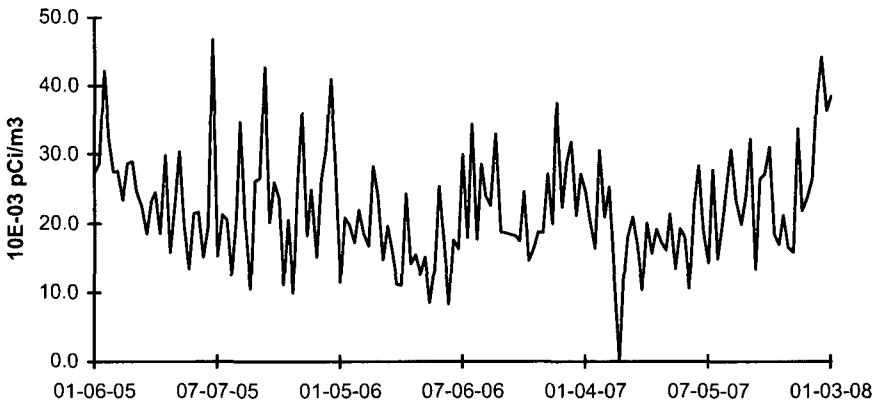


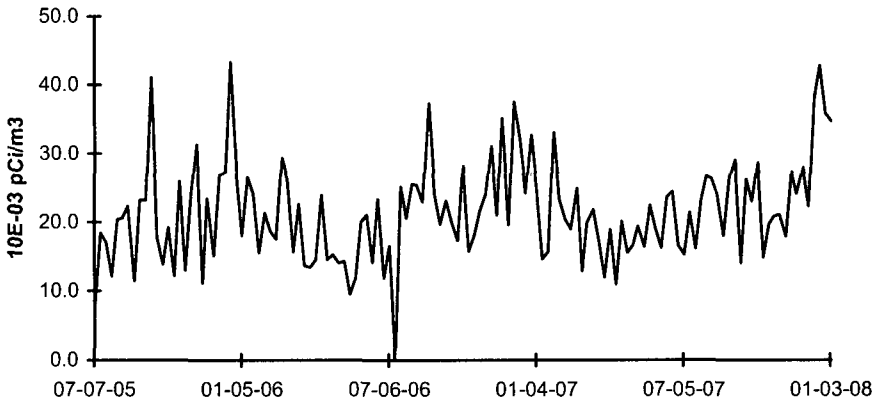
FIGURE C-5 (cont.)
Air Particulates - Gross Beta - Station L-10 (C)
Collected in the Vicinity of LCS, 2005 - 2007



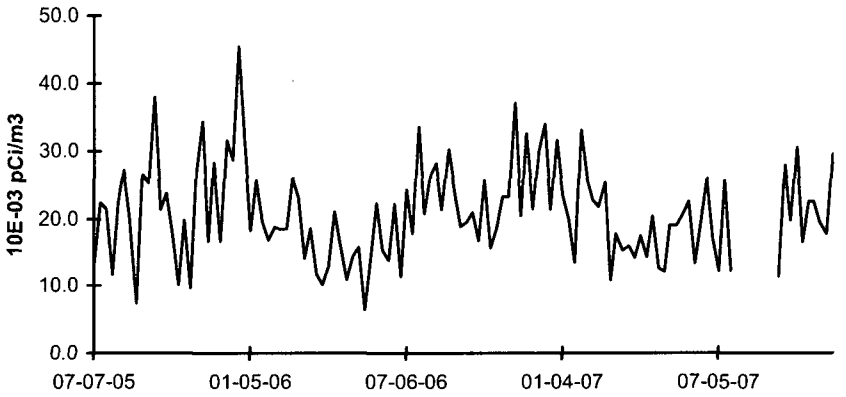
DUE TO VENDOR CHANGE IN 2005, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-6
Air Particulates - Gross Beta - Stations L-04 and L-07 Collected in the Vicinity of LCS, 2005 - 2007

L-04 Rte. 170



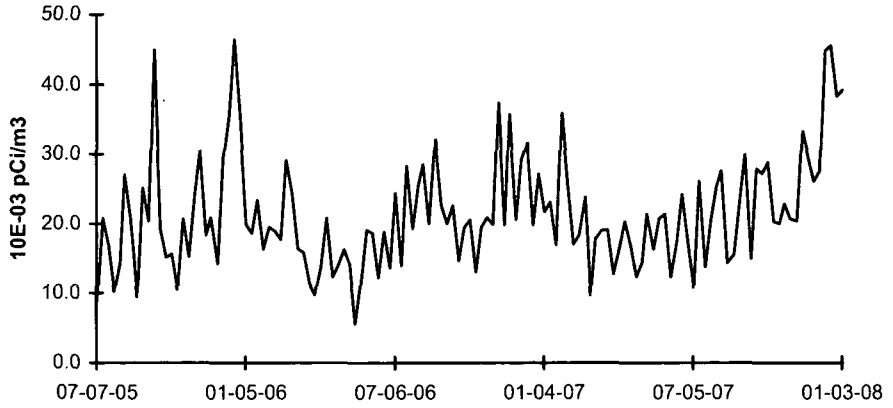
L-07 Seneca



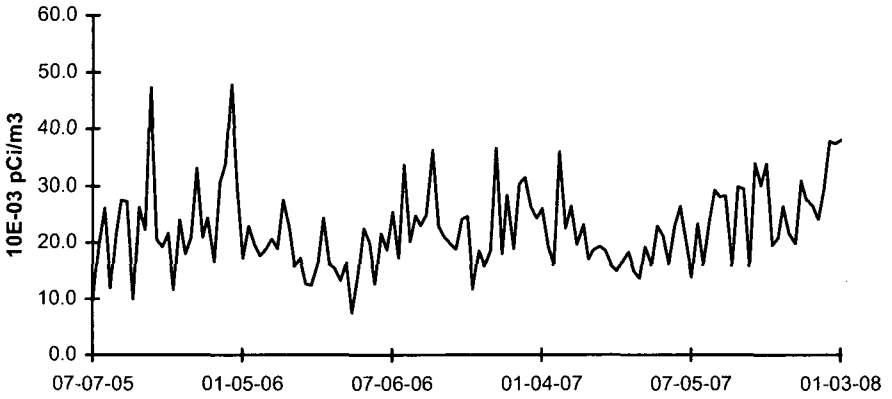
DUE TO VENDOR CHANGE IN 2005, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3
AIR PARTICULATE GROSS BETA ANALYSES OF FAR FIELD LOCATIONS STARTED IN JULY 2005
UNABLE TO COLLECT L-07 FROM 07/26/07 - 09/06/07 DUE TO ELECTRICAL PROBLEM

FIGURE C-7
Air Particulates - Gross Beta - Stations L-08 and L-11 Collected in the Vicinity of LCS, 2005 - 2007

L-08 Marseilles



L-11 Ransom



DUE TO VENDOR CHANGE IN 2005, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

AIR PARTICULATE GROSS BETA ANALYSES OF FAR FIELD LOCATIONS STARTED IN JULY 2005

APPENDIX D

INTER-LABORATORY COMPARISON PROGRAM

TABLE D-1 **ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM**
TELEDYNE BROWN ENGINEERING, 2007
(PAGE 1 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
March 2007	E5255-396	Milk	Sr-89	pCi/L	125	137	0.91	A
			Sr-90	pCi/L	10.8	10	1.08	A
	E5256-396	Milk	I-131	pCi/L	107	85.2	1.26	W
			Ce-141	pCi/L	269	297	0.91	A
			Cr-51	pCi/L	244	245	1.00	A
			Cs-134	pCi/L	98.1	112	0.88	A
			Cs-137	pCi/L	227	234	0.97	A
			Co-58	pCi/L	92.5	98.8	0.94	A
			Mn-54	pCi/L	182.0	182	1.00	A
			Fe-59	pCi/L	108.0	106	1.02	A
			Zn-65	pCi/L	985	1000	0.99	A
			Co-60	pCi/L	143	152	0.94	A
	E5258-396	AP	Ce-141	pCi	252	245	1.03	A
			Cr-51	pCi	204	202	1.01	A
			Cs-134	pCi	74.9	92.3	0.81	A
			Cs-137	pCi	190.0	197.0	0.96	A
			Co-58	pCi	79.7	81.6	0.98	A
			Mn-54	pCi	156	151	1.03	A
			Fe-59	pCi	99.1	87.2	1.14	A
			Zn-65	pCi	894	826	1.08	A
			Co-60	pCi	122	126	0.97	A
	E5257-396	Charcoal	I-131	pCi	34.7	71.3	0.49	N (1)
June 2007	E5384-396	Milk	Sr-89	pCi/L	98.3	95.2	1.03	A
			Sr-90	pCi/L	16.1	12.9	1.25	W
	E5385-396	Milk	I-131	pCi/L	71.0	70.1	1.01	A
			Ce-141	pCi/L	176	200	0.88	A
			Cr-51	pCi/L	459	512	0.90	A
			Cs-134	pCi/L	197	242	0.81	A
			Cs-137	pCi/L	158	169	0.93	A
			Co-58	pCi/L	180	198	0.91	A
			Mn-54	pCi/L	163	166	0.98	A
			Fe-59	pCi/L	158	167	0.95	A
			Zn-65	pCi/L	318	334	0.95	A
			Co-60	pCi/L	212	238	0.89	A
	E5387-396	AP	Ce-141	pCi	87.5	105	0.83	A
			Cr-51	pCi	232	268	0.87	A
			Cs-134	pCi	101	127	0.80	A
			Cs-137	pCi	78.9	88.5	0.89	A
			Co-58	pCi	91.8	104.0	0.88	A
			Mn-54	pCi	85.6	87	0.99	A
			Fe-59	pCi	89.8	87.3	1.03	A
			Zn-65	pCi	178	175	1.02	A
			Co-60	pCi	111	125	0.89	A
	E5386-396	Charcoal	I-131	pCi	79.3	79.1	1.00	A

TABLE D-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2007
(PAGE 2 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
September 2007	E5492-396	Milk	Sr-89	pCi/L	99.0	94.9	1.04	A
			Sr-90	pCi/L	13.9	13.1	1.06	A
	E5493-396	Milk	I-131	pCi/L	81.9	85.2	0.96	A
			Ce-141	pCi/L	200	211	0.95	A
			Cr-51	pCi/L	271	289	0.94	A
			Cs-134	pCi/L	131	147	0.89	A
			Cs-137	pCi/L	131	131	1.00	A
			Co-58	pCi/L	114	114	1.00	A
			Mn-54	pCi/L	171	168	1.02	A
			Fe-59	pCi/L	117	111	1.05	A
			Zn-65	pCi/L	212	202	1.05	A
			Co-60	pCi/L	143	148	0.97	A
	E5495-396	AP	Ce-141	pCi	128	136	0.94	A
			Cr-51	pCi	181	186	0.97	A
			Cs-134	pCi	85.9	94.7	0.91	A
			Cs-137	pCi	83.2	83.9	0.99	A
			Co-58	pCi	69.4	73.3	0.95	A
			Mn-54	pCi	112	108	1.04	A
			Fe-59	pCi	79.6	71.1	1.12	A
			Zn-65	pCi	159	130	1.22	W
			Co-60	pCi	92.0	95.2	0.97	A
	E5494-396	Charcoal	I-131	pCi	70.8	69.5	1.02	A
December 2007	E5749-396	Milk	Sr-89	pCi/L	87.6	93.7	0.93	A
			Sr-90	pCi/L	15.5	15.2	1.02	A
	E5750-396	Milk	I-131	pCi/L	60.6	60.8	1.00	A
			Ce-141	pCi/L	137	141	0.97	A
			Cr-51	pCi/L	497	512	0.97	A
			Cs-134	pCi/L	117	137	0.85	A
			Cs-137	pCi/L	166	166	1.00	A
			Co-58	pCi/L	159	174	0.91	A
			Mn-54	pCi/L	190	190	1.00	A
			Fe-59	pCi/L	149	148	1.01	A
			Zn-65	pCi/L	231	234	0.99	A
			Co-60	pCi/L	198	211	0.94	A
	E5752-396	AP	Ce-141	pCi	88.6	93.4	0.95	A
			Cr-51	pCi	352	340	1.04	A
			Cs-134	pCi	84.6	91.2	0.93	A
			Cs-137	pCi	111	110.0	1.01	A
			Co-58	pCi	114	116.0	0.98	A
			Mn-54	pCi	135	126	1.07	A
			Fe-59	pCi	119	98.5	1.21	W
			Zn-65	pCi	172	155	1.11	A
			Co-60	pCi	137	141	0.97	A

TABLE D-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2007
(PAGE 3 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
December 2007	E5751-396	Charcoal	I-131	pCi	65.8	74.1	0.89	A

(1) New technician counted charcoal cartridge on the back rather than the face, resulting in low activity. If the charcoal cartridge had been counted on the face, the ratio would have been approximately 1.07, which is acceptable. NCR 07-02

(a) Teledyne Brown Engineering reported result.

(b) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable. Reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning. Reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable. Reported result falls outside the ratio limits of < 0.70 and > 1.30.

TABLE D-2 **ERA ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM**
TELEDYNE BROWN ENGINEERING, 2007
(PAGE 1 OF 1)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Control Limits	Evaluation (c)
July 2007	Rad 70	Water	Sr-89	pCi/L	58.6	58.2	49.5 - 66.9	A
			Sr-90	pCi/L	18.7	19.0	10.3 - 27.7	A
			Ba-133	pCi/L	18.6	19.4	10.7 - 28.1	A
			Cs-134	pCi/L	57.6	68.9	60.2 - 77.6	N (1)
			Cs-137	pCi/L	55.4	61.3	52.6 - 70.0	A
			Co-60	pCi/L	31.3	33.5	24.8 - 42.2	A
			Zn-65	pCi/L	49.0	54.6	45.2 - 64.0	A
			Gr-A	pCi/L	26.8	27.1	15.4 - 38.8	A
			Gr-B	pCi/L	12	11.5	2.84 - 20.2	A
			I-131	pCi/L	31.1	26.5	21.3 - 31.7	A
			H-3	pCi/L	1700	1770	1180 - 2360	A
October 2007	RAD 71	Water	Sr-89	pCi/L	27.07	27.4	19.3 - 33.9	A
			Sr-90	pCi/L	17.40	18.2	12.9 - 21.6	A
			Ba-133	pCi/L	12.57	12.6	8.64 - 15.5	A
			Cs-134	pCi/L	63.33	71.1	58.0 - 78.2	A
			Cs-137	pCi/L	168	180	162 - 200	A
			Co-60	pCi/L	21.93	23.2	19.9 - 28.3	A
			Zn-65	pCi/L	245.33	251	226 - 294	A
			Gr-A	pCi/L	55.60	58.6	30.6 - 72.9	A
			Gr-B	pCi/L	15.23	9.73	4.26 - 18.2	A
			I-131	pCi/L	27.43	28.9	24.0 - 33.8	A
			H-3	pCi/L	9263.3	9700	8430 - 10700	A

(1) The Cs-134 TBE found/ERA known ratio is 83.6%, which TBE considers acceptable. NCR 07-07

(a) Teledyne Brown Engineering reported result.

(b) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) ERA evaluation: A=acceptable. Reported result falls within the Warning Limits. N=not acceptable. Reported result falls outside of the Control Limits. CE=check for Error. Reported result falls within the Control Limits and outside of the Warning Limit.

TABLE D-3 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING, 2007
(PAGE 1 OF 1)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
February 2007	07-MaW17	Water	Cs-134	Bq/L	74.5	83.5	58.5 - 108.6	A
			Cs-137	Bq/L	162	163.0	114-1 - 211.9	A
			Co-57	Bq/L	140	143.7	100.6 - 186.8	A
			Co-60	Bq/L	27.9	26.9	18.8 - 35.0	A
			H-3	Bq/L	346	283.0	198.1 - 367.9	W
			Mn-54	Bq/L	125	123.8	86.7 - 160.9	A
			Sr-90	Bq/L	8.90	8.87	6.21- 11.53	A
			Zn-65	Bq/L	117	114.8	80.4 - 149.2	A
	07-GrW17	Water	Gr-A	Bq/L	0.502	0.327	>0.0 - 0.654	A
			Gr-B	Bq/L	0.975	0.851	0.426 - 1.277	A
	07-MaS17	Soil	Cs-134	Bq/kg	322	327.4	229.2 - 425.6	A
			Cs-137	Bq/kg	893	799.7	559.8 - 1039.6	A
			Co-57	Bq/kg	508.3	471.2	329.8 - 612.6	A
			Co-60	Bq/kg	300.3	274.7	192.3 - 357.1	A
			Mn-54	Bq/kg	779	685.2	479.6 - 890.8	A
			K-40	Bq/kg	682	602	421 - 783	A
			Sr-90	Bq/kg	293	319.0	223.3 - 414.7	A
			Zn-65	Bq/kg	618.7	536.8	375.8 - 697.8	A
	07-RdF17	AP	Cs-134	Bq/sample	3.230	1.4960	2.9372 - 5.4548	W
			Cs-137	Bq/sample	2.453	2.5693	1.7985 - 3.3401	A
			Co-57	Bq/sample	3.067	2.8876	2.0213 - 3.7539	A
			Co-60	Bq/sample	2.767	2.9054	2.0338 - 3.7770	A
			Mn-54	Bq/sample	3.557	3.5185	2.4630 - 4.5741	A
			Sr-90	Bq/sample	0.584	0.6074	0.4252 - 0.7896	A
			Zn-65	Bq/sample	2.463	2.6828	1.8780 - 3.4876	A
	07-GrF17	AP	Gr-A	Bq/sample	0.353	0.601	>0.0 - 1.202	A
			Gr-B	Bq/sample	0.500	0.441	0.221 - 0.662	A
February 2007	07-RdV17	Vegetation	Cs-134	Bq/sample	6.207	6.2101	4.3471 - 8.0731	A
			Cs-137	Bq/sample	7.80	6.9949	4.8964 - 9.0934	A
			Co-57	Bq/sample	8.64	8.1878	5.7315 - 10.6441	A
			Co-60	Bq/sample	6.10	5.8215	4.0751 - 7.5680	A
			Mn-54	Bq/sample	9.41	8.4492	5.9144 - 10.9840	A
			K-40	Bq/sample	63.5	Not evaluated by MAPEP		
			Sr-90	Bq/sample	1.51	1.5351	1.0746 - 1.9956	A
			Zn-65	Bq/sample	7.15	5.6991	3.9894 - 7.4088	W

(a) Teledyne Brown Engineering reported result.

(b) The MAPEP known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) DOE/MAPEP evaluation: A=acceptable, W=acceptable with warning, N=not acceptable.

TABLE D-4 ERA[a] STATISTICAL SUMMARY PROFICIENCY TESTING PROGRAM ENVIRONMENTAL, INC., 2007

Lab Code *	Date	Concentration (pCi/L) Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STAP-1116	03/19/07	Gr. Alpha	34.64 ± 2.56	25.8	12.4 - 39	Pass
STAP-1116	03/19/07	Gr. Beta	93.41 ± 3.20	79.5	48.8 - 116	Pass
STAP-1117	03/19/07	Co-60	1610.00 ± 8.40	1300.0	1010.0 - 1620	Pass
STAP-1117	03/19/07	Cs-134	1340.40 ± 48.84	1120.0	732.0 - 1380	Pass
STAP-1117 [e]	03/19/07	Cs-137	345.30 ± 8.20	255.0	192.0 - 336	Fail
STAP-1117 [f]	03/19/07	Mn-54	< 5.0	0.0		Pass
STAP-1117	03/19/07	Sr-90	156.10 ± 6.60	156.0	66.6 - 246	Pass
STAP-1117	03/19/07	Zn-65	363.80 ± 11.90	245.0	208.0 - 412	Pass
STSO-1118	03/19/07	Ac-228	3097.77 ± 94.96	2790.0	1790.0 - 3930	Pass
STSO-1118	03/19/07	Bi-212	2467.87 ± 114.33	2500.0	658.0 - 3730	Pass
STSO-1118	03/19/07	Co-60	7847.40 ± 86.60	7330.0	5340.0 - 9820	Pass
STSO-1118	03/19/07	Cs-134	7910.60 ± 356.88	7560.0	4850.0 - 9070	Pass
STSO-1118	03/19/07	Cs-137	4635.00 ± 99.10	4300.0	3290.0 - 5580	Pass
STSO-1118	03/19/07	K-40	12201.60 ± 423.20	11100.0	8050.0 - 15000	Pass
STSO-1118 [f]	03/19/07	Mn-54	< 34.0	0.0		Pass
STSO-1118	03/19/07	Pb-212	2046.80 ± 127.20	1730.0	1120.0 - 2430	Pass
STSO-1118	03/19/07	Pb-214	4142.80 ± 110.40	3330.0	1980.0 - 4980	Pass
STSO-1118	03/19/07	Sr-90	6163.30 ± 791.60	7500.0	2610.0 - 12400	Pass
STSO-1118	03/19/07	Th-234	4329.40 ± 569.10	3590.0	2190.0 - 4560	Pass
STSO-1118 [f]	03/19/07	Zn-65	0.00 ± 0.00	0.0	0.0 - 0	Pass
STVE-1119	03/19/07	Co-60	2827.90 ± 62.40	2600.0	1760.0 - 3720	Pass
STVE-1119	03/19/07	Cs-134	654.80 ± 48.40	579.0	308.0 - 822	Pass
STVE-1119	03/19/07	Cs-137	3307.30 ± 58.80	2920.0	2150.0 - 4060	Pass
STVE-1119	03/19/07	K-40	40814.20 ± 618.80	37900.0	27200.0 - 53600	Pass
STVE-1119 [f]	03/19/07	Mn-54	< 27.6	0.0		Pass
STVE-1119	03/19/07	Sr-90	8999.70 ± 580.90	8890.0	4900.0 - 11800	Pass
STVE-1119	03/19/07	Zn-65	474.30 ± 45.70	366.0	267.0 - 500	Pass
STW-1120	03/19/07	Co-60	541.40 ± 9.00	536.0	467.0 - 631	Pass
STW-1120	03/19/07	Cs-134	1623.80 ± 66.10	1750.0	1290.0 - 2020	Pass
STW-1120	03/19/07	Cs-137	1839.10 ± 17.90	1850.0	1570.0 - 2220	Pass
STW-1120 [f]	03/19/07	Mn-54	< 8.1	0.0		Pass
STW-1120	03/19/07	Sr-90	949.40 ± 16.70	989.0	630.0 - 1320	Pass
STW-1120	03/19/07	Zn-65	2009.00 ± 36.40	1910.0	1600.0 - 2410	Pass
STW-1121	04/09/07	Sr-89	30.7 ± 4.3	35.4	26.7 - 44.1	Pass
STW-1121	04/09/07	Sr-90	39.3 ± 1.8	42.1	33.4 - 50.8	Pass

TABLE D-4 ERA[a] STATISTICAL SUMMARY PROFICIENCY TESTING PROGRAM ENVIRONMENTAL, INC., 2007

Lab Code *	Date	Concentration (pCi/L)				
		Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1122	04/09/07	Ba-133	30.0 ± 2.4	29.3	20.6 - 38.0	Pass
STW-1122	04/09/07	Co-60	118.5 ± 3.9	119.0	109.0 - 129.0	Pass
STW-1122	04/09/07	Cs-134	52.6 ± 2.3	54.3	45.6 - 63.0	Pass
STW-1122	04/09/07	Cs-137	49.5 ± 3.8	50.3	41.6 - 59.0	Pass
STW-1122	04/09/07	Zn-65	91.7 ± 6.3	88.6	73.3 - 104.0	Pass
STW-1123	04/09/07	Gr. Alpha	33.8 ± 3.5	56.5	32.0 - 81.0	Pass
STW-1123	04/09/07	Gr. Beta	24.2 ± 2.3	25.3	16.6 - 34.0	Pass
STW-1124	04/09/07	I-131	19.2 ± 1.2	18.9	13.7 - 24.1	Pass
STW-1125	04/09/07	H-3	7540.0 ± 255.0	8060.0	6660.0 - 9450.0	Pass
STW-1127	07/09/07	Sr-89	51.7 ± 5.0	58.2	49.5 - 66.9	Pass
STW-1127	07/09/07	Sr-90	21.4 ± 2.3	19.0	10.3 - 27.7	Pass
STW-1128	07/09/07	Ba-133	19.4 ± 2.2	19.4	10.7 - 28.1	Pass
STW-1128	07/09/07	Co-60	32.8 ± 2.0	33.5	24.8 - 42.2	Pass
STW-1128	07/09/07	Cs-134	67.0 ± 2.9	68.9	60.2 - 77.6	Pass
STW-1128	07/09/07	Cs-137	61.6 ± 3.8	61.3	52.6 - 70.0	Pass
STW-1128	07/09/07	Zn-65	55.6 ± 7.5	54.6	45.2 - 64.0	Pass
STW-1129	07/09/07	Gr. Alpha	19.2 ± 1.6	27.1	15.4 - 38.8	Pass
STW-1129	07/09/07	Gr. Beta	9.1 ± 0.9	11.5	2.8 - 20.2	Pass
STW-1131	10/05/07	Sr-89	27.3 ± 3.3	27.4	19.3 - 33.9	Pass
STW-1131	10/05/07	Sr-90	17.7 ± 1.2	18.2	12.9 - 21.6	Pass
STW-1132	10/05/07	Ba-133	12.2 ± 3.3	12.6	8.6 - 15.5	Pass
STW-1132	10/05/07	Co-60	23.8 ± 1.4	23.2	19.9 - 28.3	Pass
STW-1132	10/05/07	Cs-134	70.5 ± 4.2	71.1	58.0 - 78.2	Pass
STW-1132	10/05/07	Cs-137	178.2 ± 3.3	180.0	162.0 - 200.0	Pass
STW-1132	10/05/07	Zn-65	263.9 ± 6.9	251.0	226.0 - 294.0	Pass
STW-1133	10/05/07	Gr. Alpha	54.7 ± 2.1	58.6	30.6 - 72.9	Pass
STW-1133	10/05/07	Gr. Beta	11.9 ± 0.9	9.7	4.3 - 18.2	Pass
STW-1134	10/05/07	I-131	33.0 ± 1.5	28.9	24.0 - 33.8	Pass
STW-1135	10/05/07	H-3	9965.0 ± 250.0	9700.0	8430.0 - 10700.0	Pass

* Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the Environmental Measurements Laboratory Quality Assessment Program (EML).

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

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

[e] A high bias (~ 20%) was observed in gamma results for air filters. A composite filter geometry was used in the calculations vs. a single filter geometry. Result of recalculation. Cs-137, 305.8 ± 6.0 pCi/filter.

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

TABLE D-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a]
ENVIRONMENTAL, INC., 2007

		Concentration [b]				
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1110	01/01/07	Gr. Alpha	0.45 ± 0.08	0.33	0.00 - 0.65	Pass
STW-1110	01/01/07	Gr. Beta	0.90 ± 0.14	0.85	0.43 - 1.28	Pass
STW-1111	01/01/07	Co-57	151.60 ± 10.00	143.70	100.60 - 186.80	Pass
STW-1111	01/01/07	Cs-134	79.20 ± 8.00	83.50	58.50 - 108.60	Pass
STW-1111	01/01/07	Cs-137	168.70 ± 12.10	163.00	114.10 - 211.90	Pass
STW-1111	01/01/07	H-3	262.20 ± 9.10	283.00	198.10 - 367.90	Pass
STW-1111	01/01/07	Mn-54	130.60 ± 11.50	123.80	86.70 - 160.90	Pass
STW-1111	01/01/07	Sr-90	9.60 ± 1.40	8.87	6.21 - 11.53	Pass
STW-1111	01/01/07	Zn-65	123.70 ± 17.00	114.80	80.40 - 149.20	Pass
STSO-1112	01/01/07	Co-57	501.20 ± 2.90	471.20	329.80 - 612.60	Pass
STSO-1112	01/01/07	Co-60	285.90 ± 2.10	274.70	192.30 - 357.10	Pass
STSO-1112	01/01/07	Cs-134	325.90 ± 7.40	327.40	229.20 - 425.60	Pass
STSO-1112	01/01/07	Cs-137	855.70 ± 4.60	799.70	559.80 - 1039.60	Pass
STSO-1112	01/01/07	Mn-54	750.90 ± 4.70	685.20	479.60 - 890.80	Pass
STAP-1113	01/01/07	Gr. Alpha	0.27 ± 0.04	0.60	0.00 - 1.20	Pass
STAP-1113	01/01/07	Gr. Beta	0.57 ± 0.05	0.44	0.22 - 0.66	Pass
STAP-1114	01/01/07	Co-57	3.51 ± 0.07	2.89	2.02 - 3.75	Pass
STAP-1114	01/01/07	Co-60	2.98 ± 0.10	2.91	2.03 - 3.78	Pass
STAP-1114	01/01/07	Cs-134	4.02 ± 0.16	4.20	2.94 - 5.45	Pass
STAP-1114	01/01/07	Cs-137	2.75 ± 0.12	2.57	1.80 - 3.34	Pass
STAP-1114	01/01/07	Mn-54	3.94 ± 0.12	3.52	2.46 - 4.57	Pass
STAP-1114	01/01/07	Sr-90	0.58 ± 0.18	0.61	0.43 - 0.79	Pass
STAP-1114	01/01/07	Zn-65	2.70 ± 0.10	2.68	1.88 - 3.49	Pass
STVE-1115	01/01/07	Co-57	8.90 ± 0.20	8.19	5.73 - 10.64	Pass
STVE-1115	01/01/07	Co-60	6.50 ± 0.20	5.82	4.08 - 7.57	Pass
STVE-1115	01/01/07	Cs-134	6.90 ± 0.30	6.21	4.35 - 8.07	Pass
STVE-1115	01/01/07	Cs-137	8.20 ± 0.30	6.99	4.90 - 9.09	Pass
STVE-1115	01/01/07	Mn-54	10.10 ± 0.30	8.46	5.91 - 10.98	Pass

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

[b] Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).

[c] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

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

APPENDIX E

EFFLUENT DATA

TABLE OF CONTENTS

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INTRODUCTION

LaSalle County Station, a two-unit BWR station, is located near Marseilles, Illinois in LaSalle county, 3.5 miles south the Illinois River. Both units are rated for 3489 MWt. Unit 1 loaded fuel in March 1982. Unit 2 loaded fuel in late December 1983. The station has been designed to keep releases to the environment at levels below those specified in the regulations.

Liquid effluents, while no longer released from LaSalle County Station, were designed to be released to the Illinois River in controlled batches after radioassay of each batch. Gaseous effluents are released to the atmosphere after delay to permit decay of short-lived (noble) gases. Releases to the atmosphere are calculated on the basis of analyses of routine grab samples of noble gases and tritium as well as continuously collected composite samples of iodine and particulate radioactivity sampled during the course of the year. The results of effluent analyses are summarized on a monthly basis and reported to the Nuclear Regulatory Commission as required per Technical Specifications. Airborne concentrations of noble gases, tritium, I-131, and particulate radioactivity in offsite areas are calculated using effluent and meteorological data.

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

SUMMARY

Gaseous effluents for the period contributed to only a small fraction of the LaSalle County Station Technical Specification limits. Liquid effluents had no contribution to offsite dose, as no liquid radioactive discharges were conducted. Calculations of environmental concentrations based on effluent, Illinois River flow, and meteorological data for the period indicate that consumption by the public of radionuclides attributable to LaSalle County Station does not exceed regulatory limits. Radiation exposure from radionuclides releases to the atmosphere represented the critical pathway for the period with a maximum individual total dose estimated to be 1.47E-01 mrem for the year, where a shielding and occupancy factor of 0.7 is assumed. The assessment of radiation doses is performed in accordance with the Offsite Dose Calculation Manual (ODCM), specifically, a comparison of preoperational studies with operational controls or with previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. Control locations are basis for "preoperational data." Yearly data comparisons are provided in Sections 5.1 and 5.2; five-year graphical trend data is provided in Appendix III, Section 7.0. The results of analysis confirm that the station is operating in compliance with 10CFR50 Appendix I, 10CFR20 and 40CFR190.

1.0 EFFLUENTS

1.1 Gaseous Effluents to the Atmosphere

Measured concentrations of noble gases, radioiodine, and particulate radioactivity released to the atmosphere during the year, are listed in Table 1.1-1. A total of 2.63E+03 curies of fission and activation gases were released with a maximum quarterly average release rate of 8.34E+01µCi/sec.

A total of 8.01E-02 curies of 1-131 was released during the year with a maximum quarterly release rate of 2.54E-03 µCi/sec.

A total of 4.06E-02 curies of beta-gamma emitters was released as airborne particulate matter with a maximum quarterly average release rate of 1.29E-03 µCi/sec. Alpha-emitting radionuclides were below the lower limit of detection (LLD).

A total of 9.52E+01 curies of tritium was released with a maximum quarterly average release rate of 3.02E+00 µCi/sec.

1.2 Liquids Released to Illinois River

There were no liquid batch releases in 2007. Continuous release path activity was below applicable Lower Limits of Detection.

2.0 SOLID RADIOACTIVE WASTE

Solid radioactive wastes were shipped by truck to the Envirocare Disposal Facility or to a waste processor. For further detail, refer the LaSalle 2007 Radioactive Effluent Release Report. The submittal date of this report was April 30, 2008.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

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

3.1.1 Noble Gases

3.1.1.1 Gamma Dose Rates

Unit 1 and Unit 2 gaseous releases at LaSalle

County Station are reported as Unit 1 releases due to a single station vent stack (SVS) release point. Offsite Gamma air and whole body dose rates are shown in Table 3.1-1 and were calculated based on measured release rates, isotopic composition of the noble gases, and average meteorological data for the period. Doses bases on concurrent meteorological data are shown in Table 3.4-1. Based on measured effluents and meteorological data, the maximum total body dose to an individual would be 3.79E-02 mrem (Table 3.1-1) for the year, with an occupancy or shielding factor of 0.7 included. The maximum total body dose based on measured effluents and concurrent meteorological data would be 2.43E-02 mrem. (Table 3.4-1).

The maximum gamma air dose was 5.02E-02 mrad (Table 3.1-1) and 6.47E-02 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.1.2 Beta Air and Skin Rates

The range of beta particles in air is relatively small (on the order of a few meters or less); consequently, plumes of gaseous effluents may be considered "infinite" for purpose of calculating the dose from beta radiation incident on the skin. However, the actual dose to sensitive skin tissues is difficult to calculate due to the effect of the beta particle energies, thickness of inert skin and clothing covering sensitive tissues. For purposes of this report the skin is taken to have a thickness of 7.0 mg/cm^2 and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was 3.98E-02 (Table 3.1-1) and 2.87E-02 mrem (Table 3.4-1) based on concurrent meteorological data. The maximum offsite beta dose for the year was 1.43E-03 mrad (Table 3.1-1) and 6.00E-03 mrad (Table 3.4-1) based on concurrent meteorological data.

3.1.2 Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine. The radioiodine, I-131, released during routing operation of the plant, may be made available to man resulting in a dose to the thyroid. The principal pathway of interest for this radionuclide in ingestion of radioiodine in milk.

3.1.2.1 Dose to Thyroid

The hypothetical thyroid dose to a maximum exposed individual living near the station via ingestion of milk was calculated. The radionuclide considered was I-131 and the source of milk was taken to be the nearest dairy farm with the cows pastured from May through October. The maximum thyroid does due to I-131 was 1.47E-01 mrem (child) for the year (Table 3.1-1).

3.2 Liquid Effluent Pathways

The three principal pathways through the aquatic environment for potential doses to man from liquid waste are ingestion of potable water, eating aquatic foods, and exposure while on the shoreline. Not all of these pathways are significant or applicable at a given time but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC developed equations* were used to calculate the doses to the whole body, lower gastro-intestinal tracts, thyroid, bone and skin; specific parameters for use in the equations are given in the Offsite Dose Calculation Manual. The maximum whole body dose was 0.00E+00 mrem and organ dose was 0.00E+00 for the year mrem (Table 3.2-1).

3.3 Assessment of Dose to Member of Public

During the period January to December, 2007, LaSalle County Station did not exceed these limits as shown in Table 3.1-1 and Table 3.2-1 (based on annual average meteorological data), and As shown in Table 3.3-1:

- The Radiological Effluent Technical Standards (RETS) limits on dose or dose commitment to an individual due to

radioactive materials in liquid effluents from each reactor unit (1.5 mrem to the whole body or 5 mrem to any organ during any calendar year; 3 mrem to the whole body or 10 mrem to any organ during the calendar year).

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

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

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

4.0 SITE METEOROLOGY

A summary of the site meteorological measurements taken during each calendar quarter of the year is given in Appendix E. The data are presented as cumulative joint frequency distributions of the wind direction for the 375' level and wind speed class by atmospheric stability class determined from the temperature difference between the 375' and 33' levels. Data recovery for these measurements was 99.7% during 2007 (Table 3.4-1).

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

APPENDIX E-1

DATA TABLES AND FIGURES

Table 1.1-1

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2007)
UNITS ONE AND TWO
DOCKET NUMBERS 50-373 AND 50-374
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Estimated Total Error %
A. Fission and Activation Gas Releases						
1. Total Release Activity	Ci	**6.23E+02**	**6.60E+02**	**6.26E+02**	**7.19E+02**	**3.50E+01**
2. Average Release Rate	uCi/sec	**8.01E+01**	**8.40E+01**	**7.87E+01**	**9.04E+01**	
3. Percent of Technical Specification Limit	%	*	*	*	*	
B. Iodine Releases						
1. Total I-131 Activity	Ci	**1.56E-02**	**1.90E-02**	**2.76E-02**	**1.79E-02**	**3.50E+01**
2. Average Release Rate	uCi/sec	**2.00E-03**	**2.42E-03**	**3.47E-03**	**2.26E-03**	
3. Percent of Technical Specification Limit	%	*	*	*	*	
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	**3.07-02**	**3.05E-03**	**3.75E-03**	**3.14E-03**	**3.30E+01**
2. Average Release Rate	uCi/sec	**3.94E-04**	**3.87E-04**	**4.71E-04**	**3.95E-04**	
3. Percent of Technical Specification Limit	%	*	*	*	*	
3. Gross Alpha Activity	Ci	**<1.00E-11**	**<1.00E-11**	**<1.00E-11**	**<1.00E-11**	
D. Tritium Releases						
1. Total Release Activity	Ci	**2.27E+01**	**2.17E+01**	**2.21E+01**	**2.87E+01**	**2.10E+01**
2. Average Release Rate	uCi/sec	**2.92E+00**	**2.76E+00**	**2.78E+00**	**3.61+00**	
3. Percent of Technical Specification Limit	%	*	*	*	*	

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

"<" Indicates activity of sample is less than LLD given in uCi/ml

Table 1.2-1

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2007)
LIQUID RELEASES
UNIT 1 and UNIT 2
SUMMATION OF ALL LIQUID RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Estimated Total Error %
A. Fission and Activation Products						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	5.08E-03	N/A
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	8.02E-08	
3. Percent of Applicable Limit	%	*	*	*	*	
B. Tritium						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	N/A
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	
3. Percent of Applicable Limit	%	*	*	*	*	
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	N/A
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	
3. Percent of Applicable Limit	%	*	*	*	*	
D. Gross Alpha						
1. Total Activity Released (estimate)	Ci	<LLD	<LLD	<LLD	<LLD	N/A
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	
3. Percent of Applicable Limit	%	*	*	*	*	
E. Volume of Liquid Waste to Discharge	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A
F. Volume of Dilution Water	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A

"*" This information is contained in the Radiological Impact on Man section of the report.
"<" Indicates activity of sample is less than LLD given in uCi/ml

Table 2.1-1

SOLID RADWASTE ANNUAL REPORT

LaSalle County Station

Table 2.1-1 deliberately deleted. For solid waste disposal detail, refer to the LaSalle County Station 2007 Effluent Report.

Table 3.1-1

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.22E-02 (WSW)	1.27E-02 (WSW)	1.07E-02 (WSW)	1.45E-02 (WSW)	5.02E-02 (WSW)
BETA AIR (MRAD)	3.63E-04 (ESE)	3.57E-04 (ESE)	3.25E-04 (ESE)	3.81E-04 (ESE)	1.43E-03 (ESE)
TOT. BODY (MREM)	9.20E-03 (WSW)	9.63E-03 (WSW)	8.12E-03 (WSW)	1.10E-02 (WSW)	3.79E-02 (WSW)
SKIN (MREM)	9.65E-03 (WSW)	1.01E-02 (WSW)	8.52E-03 (WSW)	1.15E-02 (WSW)	3.98E-02 (WSW)
ORGAN (MREM)	2.32E-03 (ESE)	3.78E-02 (ESE)	6.94E-02 (ESE)	2.17E-02 (ESE)	1.31E-01 (ESE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10CFR 50 APP. I
INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
GAMMA AIR (MRAD)	5.0	0.24	0.25	0.21	0.29	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.37	0.39	0.32	0.44	5.0	0.76
SKIN (MREM)	7.5	0.13	0.13	0.11	0.15	15.0	0.27
ORGAN (MREM)	7.5	0.03	0.50	0.93	0.29	15.0	0.87
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.22E-02 (WSW)	1.27E-02 (WSW)	1.07E-02 (WSW)	1.45E-02 (WSW)	5.02E-02 (WSW)
BETA AIR (MRAD)	3.63E-04 (ESE)	3.57E-04 (ESE)	3.25E-04 (ESE)	3.81E-04 (ESE)	1.43E-03 (ESE)
TOT. BODY (MREM)	9.20E-03 (WSW)	9.63E-03 (WSW)	8.12E-03 (WSW)	1.10E-02 (WSW)	3.79E-02 (WSW)
SKIN (MREM)	9.65E-03 (WSW)	1.01E-02 (WSW)	8.52E-03 (WSW)	1.15E-02 (WSW)	3.98E-02 (WSW)
ORGAN (MREM)	1.94E-03 (NNE)	4.22E-02 (NNE)	7.71E-02 (NNE)	2.63E-02 (NNE)	1.47E-01 (NNE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10CFR 50 APP. I
CHILD RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
GAMMA AIR (MRAD)	5.0	0.24	0.25	0.21	0.29	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.37	0.39	0.32	0.44	5.0	0.76
SKIN (MREM)	7.5	0.13	0.13	0.11	0.15	15.0	0.27
ORGAN (MREM)	7.5	0.03	0.56	1.03	0.35	15.0	0.98
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.22E-02 (WSW)	1.27E-02 (WSW)	1.07E-02 (WSW)	1.45E-02 (WSW)	5.02E-02 (WSW)
BETA AIR (MRAD)	3.63E-04 (ESE)	3.57E-04 (ESE)	3.25E-04 (ESE)	3.81E-04 (ESE)	1.43E-03 (ESE)
TOT. BODY (MREM)	9.20E-03 (WSW)	9.63E-03 (WSW)	8.12E-03 (WSW)	1.10E-02 (WSW)	3.79E-02 (WSW)
SKIN (MREM)	9.65E-03 (WSW)	1.01E-02 (WSW)	8.52E-03 (WSW)	1.15E-02 (WSW)	3.98E-02 (WSW)
ORGAN (MREM)	1.44E-03 (NNE)	2.60E-02 (NNE)	4.73E-02 (NNE)	1.64E-02 (NNE)	9.12E-02 (NNE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10CFR 50 APP. I
TEENAGER RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
GAMMA AIR (MRAD)	5.0	0.24	0.25	0.21	0.29	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.37	0.39	0.32	0.44	5.0	0.76
SKIN (MREM)	7.5	0.13	0.13	0.11	0.15	15.0	0.27
ORGAN (MREM)	7.5	0.02	0.35	0.63	0.22	15.0	0.61
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.1-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.22E-02 (WSW)	1.27E-02 (WSW)	1.07E-02 (WSW)	1.45E-02 (WSW)	5.02E-02 (WSW)
BETA AIR (MRAD)	3.63E-04 (ESE)	3.57E-04 (ESE)	3.25E-04 (ESE)	3.81E-04 (ESE)	1.43E-03 (ESE)
TOT. BODY (MREM)	9.20E-03 (WSW)	9.63E-03 (WSW)	8.12E-03 (WSW)	1.10E-02 (WSW)	3.79E-02 (WSW)
SKIN (MREM)	9.65E-03 (WSW)	1.01E-02 (WSW)	8.52E-03 (WSW)	1.15E-02 (WSW)	3.98E-02 (WSW)
ORGAN (MREM)	1.58E-03 (NNE)	2.67E-02 (NNE)	4.85E-02 (NNE)	1.67E-02 (NNE)	9.35E-02 (NNE)
	THYROID	THYROID	THYROID	THYROID	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10CFR 50 APP. I
ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
GAMMA AIR (MRAD)	5.0	0.24	0.25	0.21	0.29	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.37	0.39	0.32	0.44	5.0	0.76
SKIN (MREM)	7.5	0.13	0.13	0.11	0.15	15.0	0.27
ORGAN (MREM)	7.5	0.02	0.36	0.65	0.22	15.0	0.62
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1

LASALLE STATION UNIT ONE

MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
INFANT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
CHILD RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
TEENAGER RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
	---------- % OF APP I. ----------						
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.2-1 (continued)

LASALLE STATION UNIT ONE

ACTUAL 2007
MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS
PERIOD OF RELEASE - 01/01/07 TO 12/31/07 CALCULATED 03/24/08
ADULT RECEPTOR

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

THIS IS A REPORT FOR THE CALENDAR YEAR 2007

COMPLIANCE STATUS - 10 CFR 50 APP. I

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

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-DEC	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/07 TO 12/31/07

CALCULATED 03/24/08

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

Total Effective Dose Eqivalent,	mrem/yr	3.95E-01
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	0.39

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	9.79E-02	9.95E-02	1.01E-01	9.66E-02	0.39

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/07 TO 12/31/07

CALCULATED 03/24/08

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body	Plume	3.79E-02		
(DDE)	Skyshine	3.43E-01		
	Ground	7.25E-04		
	Total	3.82E-01	25.0	1.53
Organ Dose	Thyroid	8.22E-02	75.0	0.11
(CDE)	Gonads	1.08E-02	25.0	0.04
	Breast	1.08E-02	25.0	0.04
	Lung	1.08E-02	25.0	0.04
	Marrow	1.08E-02	25.0	0.04
	Bone	1.08E-02	25.0	0.04
	Remainder	1.09E-02	25.0	0.04
	CEDE	1.30E-02		
	TEDE	3.95E-01	100.0	0.39

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/07 TO 12/31/07

CALCULATED 03/24/08

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

Total Effective Dose Eqivalent, mrem/yr		3.31E-01
10 CFR 20.1301 (a)(1) limit	mrem/yr	100.0
	% of limit	0.33

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	6.50E-02	8.85E-02	8.76E-02	9.02E-02	0.33

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.3-1 (continued)

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/07 TO 12/31/07

CALCULATED 03/24/08

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body	Plume	0.00E+00		
(DDE)	Skyshine	3.31E-01		
	Ground	0.00E+00		
	Total	3.31E-01	25.0	1.33
Organ Dose	Thyroid	0.00E+00	75.0	0.00
(CDE)	Gonads	0.00E+00	25.0	0.00
	Breast	0.00E+00	25.0	0.00
	Lung	0.00E+00	25.0	0.00
	Marrow	0.00E+00	25.0	0.00
	Bone	0.00E+00	25.0	0.00
	Remainder	0.00E+00	25.0	0.00
	CEDE	0.00E+00		
	TEDE	3.31E-01	100.0	0.33

RESULTS BASED UPON: ODCM ANNEX REVISION 3.0 MAY 2001
ODCM SOFTWARE VERSION 1.1 January 1995
ODCM DATABASE VERSION 1.1 January 1995

Table 3.4-1

LaSalle Station - Unit 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2007

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	7.350E-03(SE)	1.345E-02(WSW)	1.085E-02(W)	8.450E-03(SE)	3.237E-02(WSW)
BETA AIR (mrad)	8.650E-04(ESE)	9.300E-04(ESE)	8.450E-04(NE)	7.900E-04(SE)	3.000E-03(ESE)
WHOLE BODY (mrem)	2.565E-03(ESE)	3.750E-03(W)	4.025E-03(SSW)	3.200E-03(SSW)	1.213E-02(SSW)
SKIN (mrem)	3.570E-03(ESE)	4.470E-03(W)	4.700E-03(SSW)	3.710E-03(SSW)	1.437E-02(SSW)
ORGAN (mrem)	2.690E-04(ESE)	3.825E-04(ESE)	5.500E-04(NE)	2.740E-04(SE)	1.258E-03(ESE)
CRITICAL PERSON	Child	Child	Child	Child	Child
CRITICAL ORGAN	Thyroid	Thyroid	Thyroid	Thyroid	Thyroid

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.27	10.0	0.32
BETA AIR (mrad)	10.0	0.01	20.0	0.02
WHOLE BODY (mrem)	2.5	0.16	5.0	0.24
SKIN (mrem)	7.5	0.06	15.0	0.10
ORGAN (mrem)	7.5	0.01	15.0	0.01
CRITICAL PERSON		Child		Child
CRITICAL ORGAN		Thyroid		Thyroid

Calculation used release data from the following:
Unit 0 - Chimney

Date of calculation: 3/28/2008

Table 3.4-1 (continued)

LaSalle Station - Unit 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2007

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	7.350E-03(SE)	1.345E-02(WSW)	1.085E-02(W)	8.450E-03(SE)	3.237E-02(WSW)
BETA AIR (mrad)	8.650E-04(ESE)	9.300E-04(ESE)	8.450E-04(NE)	7.900E-04(SE)	3.000E-03(ESE)
WHOLE BODY (mrem)	2.565E-03(ESE)	3.750E-03(W)	4.025E-03(SSW)	3.200E-03(SSW)	1.213E-02(SSW)
SKIN (mrem)	3.570E-03(ESE)	4.470E-03(W)	4.700E-03(SSW)	3.710E-03(SSW)	1.437E-02(SSW)
ORGAN (mrem)	2.690E-04(ESE)	3.825E-04(ESE)	5.500E-04(NE)	2.740E-04(SE)	1.258E-03(ESE)
CRITICAL PERSON	Child	Child	Child	Child	Child
CRITICAL ORGAN	Thyroid	Thyroid	Thyroid	Thyroid	Thyroid

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.27	10.0	0.32
BETA AIR (mrad)	10.0	0.01	20.0	0.02
WHOLE BODY (mrem)	2.5	0.16	5.0	0.24
SKIN (mrem)	7.5	0.06	15.0	0.10
ORGAN (mrem)	7.5	0.01	15.0	0.01
CRITICAL PERSON		Child		Child
CRITICAL ORGAN		Thyroid		Thyroid

Calculation used release data from the following:
Unit 0 - Chimney

Date of calculation: 3/28/2008

APPENDIX F

METEOROLOGICAL

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Extremely Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	13	2	0	0	19
NNE	0	8	12	3	2	0	25
NE	0	1	10	20	6	2	39
ENE	0	3	4	24	3	1	35
E	1	7	5	15	17	2	47
ESE	0	3	5	22	4	2	36
SE	0	0	6	1	3	0	10
SSE	0	0	4	1	1	0	6
S	0	0	1	5	0	0	6
SSW	0	1	6	7	5	1	20
SW	0	3	8	12	7	0	30
WSW	0	2	4	7	9	0	22
W	0	1	11	13	12	1	38
WNW	0	1	10	16	16	4	47
NW	0	1	15	6	4	0	26
NNW	0	3	23	13	0	0	39
Variable	0	0	0	0	0	0	0
Total	1	38	137	167	89	13	445

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Moderately Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	1	2	1	0	5
NNE	0	1	7	1	0	0	9
NE	0	0	7	1	2	1	11
ENE	0	0	2	1	1	0	4
E	0	0	0	3	0	1	4
ESE	0	0	1	3	2	0	6
SE	0	0	4	0	1	0	5
SSE	0	0	0	0	0	0	0
S	0	0	1	1	0	0	2
SSW	0	0	7	3	0	0	10
SW	0	0	6	8	1	0	15
WSW	0	0	3	6	3	2	14
W	0	0	8	10	3	2	23
WNW	0	1	7	7	21	2	38
NW	0	0	6	7	2	0	15
NNW	0	1	5	10	0	0	16
Variable	0	0	0	0	0	0	0
Total	1	3	65	63	37	8	177

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Slightly Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	2	0	2	0	6
NNE	0	0	5	0	0	0	5
NE	0	0	1	5	4	0	10
ENE	0	1	2	3	3	0	9
E	0	0	2	7	2	0	11
ESE	0	0	3	5	2	0	10
SE	0	1	1	1	0	0	3
SSE	0	0	0	1	1	0	2
S	0	1	9	3	0	0	13
SSW	0	2	5	5	0	0	12
SW	0	2	7	5	1	0	15
WSW	0	1	2	6	2	4	15
W	0	2	12	18	6	0	38
WNW	0	3	7	3	20	1	34
NW	0	1	5	5	1	0	12
NNW	0	0	1	3	0	0	4
Variable	0	0	0	0	0	0	0
Total	0	16	64	70	44	5	199

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Neutral - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	7	10	1	0	22
NNE	0	5	4	1	0	0	10
NE	0	1	11	3	0	0	15
ENE	2	2	9	10	0	0	23
E	1	2	18	17	13	8	59
ESE	1	6	10	7	3	0	27
SE	0	4	2	11	0	0	17
SSE	0	7	9	4	2	0	22
S	0	3	7	4	3	0	17
SSW	0	4	8	21	14	1	48
SW	2	2	24	32	14	0	74
WSW	0	6	11	16	3	11	47
W	0	1	26	27	6	8	68
WNW	0	2	33	43	34	5	117
NW	0	1	29	19	1	0	50
NNW	0	5	23	10	7	0	45
Variable	0	0	0	0	0	0	0
Total	6	55	231	235	101	33	661

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 2
Hours of missing stability measurements in all stability classes: 3

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Slightly Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	7	3	2	0	0	13
NNE	2	7	2	0	0	0	11
NE	0	0	4	0	0	0	4
ENE	0	1	5	0	0	0	6
E	0	2	11	0	0	0	13
ESE	0	4	4	3	0	0	11
SE	0	1	2	0	0	0	3
SSE	0	3	2	5	2	0	12
S	0	4	4	12	8	2	30
SSW	0	2	10	25	14	2	53
SW	1	6	20	26	12	2	67
WSW	2	2	16	4	3	0	27
W	1	7	22	10	1	0	41
WNW	2	9	28	15	7	0	61
NW	0	11	26	7	0	0	44
NNW	0	1	7	1	0	0	9
Variable	0	0	0	0	0	0	0
Total	9	67	166	110	47	6	405

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Moderately Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	1	1	0	0	0	2
ENE	0	0	0	0	0	0	0
E	0	0	2	0	0	0	2
ESE	0	0	3	0	0	0	3
SE	0	2	14	1	0	0	17
SSE	0	4	4	1	0	0	9
S	0	2	3	2	0	0	7
SSW	0	2	7	3	2	0	14
SW	0	7	11	4	0	0	22
WSW	0	8	7	2	0	0	17
W	0	12	12	8	0	0	32
WNW	0	17	21	4	0	0	42
NW	0	5	14	0	0	0	19
NNW	0	3	0	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	0	63	99	25	2	0	189

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Extremely Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	0	0	0	0	4
NNE	0	1	0	0	0	0	1
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	2	1	0	0	0	3
SSE	0	5	5	0	0	0	10
S	0	1	3	0	0	0	4
SSW	0	0	10	1	0	0	11
SW	0	7	12	7	0	0	26
WSW	0	4	3	0	0	0	7
W	0	5	4	1	0	0	10
WNW	0	0	2	0	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	29	41	9	0	0	79

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

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Extremely Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	1	0	1	2
NE	0	0	0	0	1	1	2
ENE	0	0	0	1	3	1	5
E	0	0	1	1	1	5	8
ESE	0	0	1	2	0	1	4
SE	0	0	0	0	0	1	1
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	7	7
WSW	0	0	1	2	0	9	12
W	0	1	0	0	0	0	1
WNW	0	0	0	2	2	0	4
NW	0	1	1	3	2	0	7
NNW	0	0	0	2	0	0	2
Variable	0	0	0	0	0	0	0
Total	0	2	5	14	9	26	56

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: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Moderately Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	1	5	0	0	6
NNE	0	0	4	2	1	0	7
NE	0	0	0	3	3	1	7
ENE	0	0	1	1	11	0	13
E	0	0	0	3	2	3	8
ESE	0	0	0	1	0	4	5
SE	0	0	2	0	0	0	2
SSE	0	1	0	0	0	0	1
S	0	0	0	2	0	0	2
SSW	0	0	2	1	0	0	3
SW	0	0	0	1	4	1	6
WSW	0	0	0	2	0	3	5
W	0	0	0	0	0	0	0
WNW	0	0	1	5	2	0	8
NW	0	0	0	5	1	0	6
NNW	0	0	0	7	0	0	7
Variable	0	0	0	0	0	0	0
Total	0	1	11	38	24	12	86

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 24
Hours of missing stability measurements in all stability classes: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Slightly Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	1	1	0	0	2
NNE	0	0	4	1	0	1	6
NE	0	0	0	2	1	8	11
ENE	0	0	0	0	3	0	3
E	0	1	1	0	2	6	10
ESE	0	0	3	3	5	5	16
SE	0	0	1	1	0	0	2
SSE	0	0	0	0	0	0	0
S	0	0	0	1	0	0	1
SSW	0	0	1	4	2	6	13
SW	0	0	1	1	0	1	3
WSW	0	0	0	2	3	2	7
W	0	0	2	7	12	1	22
WNW	0	0	1	8	4	1	14
NW	0	0	2	11	1	3	17
NNW	0	0	5	3	0	0	8
Variable	0	0	0	0	0	0	0
Total	0	1	22	45	33	34	135

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: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Neutral - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	3	19	4	9	37
NNE	0	5	10	20	1	5	41
NE	0	4	3	18	13	12	50
ENE	0	0	7	18	9	4	38
E	0	1	3	15	13	36	68
ESE	0	4	8	25	15	8	60
SE	2	2	7	9	4	7	31
SSE	0	1	8	3	3	3	18
S	0	3	6	13	4	9	35
SSW	0	3	9	9	26	34	81
SW	0	3	7	15	35	30	90
WSW	0	2	4	12	22	33	73
W	0	3	7	42	37	32	121
WNW	0	3	11	27	54	60	155
NW	0	5	12	38	34	20	109
NNW	0	2	4	16	8	0	30
Variable	0	0	0	0	0	0	0
Total	2	43	109	299	282	302	1037

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 21
Hours of missing stability measurements in all stability classes: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Slightly Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	5	7	5	4	23
NNE	1	1	1	7	1	0	11
NE	0	0	1	2	0	0	3
ENE	0	1	0	4	0	0	5
E	0	0	0	3	1	0	4
ESE	0	1	1	4	16	5	27
SE	0	0	3	3	1	6	13
SSE	0	0	4	2	2	8	16
S	0	0	3	4	3	19	29
SSW	0	1	3	2	5	66	77
SW	0	0	2	6	14	56	78
WSW	0	1	1	13	19	12	46
W	0	2	9	16	10	23	60
WNW	0	2	5	13	23	58	101
NW	1	1	3	25	21	16	67
NNW	0	1	7	9	9	1	27
Variable	0	0	0	0	0	0	0
Total	2	13	48	120	130	274	587

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: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Moderately Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	3	0	1	1	6
NNE	0	0	1	0	0	0	1
NE	0	0	1	0	0	0	1
ENE	0	0	0	1	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	1	2	3
SE	0	0	0	0	2	2	4
SSE	0	0	0	1	1	4	6
S	0	0	1	5	2	3	11
SSW	0	1	1	7	1	9	19
SW	0	0	0	3	4	11	18
WSW	0	0	1	2	5	4	12
W	0	2	9	2	7	0	20
WNW	0	1	1	0	9	7	18
NW	1	0	0	1	5	2	9
NNW	0	0	4	6	10	0	20
Variable	0	0	0	0	0	0	0
Total	1	5	22	28	48	45	149

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: 8

LaSalle County Generating Station

Period of Record: January - March 2007
Stability Class - Extremely Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	1	2
S	0	0	1	0	3	8	12
SSW	0	0	1	0	0	2	3
SW	0	0	0	1	0	4	5
WSW	0	0	0	1	0	10	11
W	0	0	0	1	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	0	2	4	3	25	34

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 8

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Extremely Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	1	2	0	0	3
ENE	0	0	1	3	0	0	4
E	0	1	0	1	3	3	8
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	1
S	0	0	0	1	5	1	7
SSW	0	0	0	2	9	10	21
SW	0	0	2	2	8	0	12
WSW	0	0	4	9	0	0	13
W	0	1	2	2	0	0	5
WNW	0	0	1	3	5	0	9
NW	0	0	0	4	1	0	5
NNW	0	0	0	2	0	0	2
Variable	0	0	0	0	0	0	0
Total	0	2	11	32	31	14	90

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Moderately Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	3	0	0	0	3
NE	0	0	0	7	0	0	7
ENE	0	0	1	4	0	2	7
E	0	0	1	0	0	1	2
ESE	0	0	0	0	0	0	0
SE	0	0	2	1	0	0	3
SSE	0	0	0	2	0	0	2
S	0	0	1	8	2	2	13
SSW	0	0	2	6	3	2	13
SW	0	0	6	1	0	1	8
WSW	0	0	1	8	1	0	10
W	0	1	2	5	0	0	8
WNW	0	0	13	8	5	0	26
NW	0	0	3	8	0	0	11
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	0	1	36	58	11	8	114

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Slightly Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	3	0	0	0	4
NNE	0	1	4	1	0	0	6
NE	0	4	4	7	0	0	15
ENE	0	0	4	4	4	3	15
E	0	0	2	0	1	1	4
ESE	0	0	3	1	0	0	4
SE	0	0	2	0	0	0	2
SSE	0	0	6	5	1	0	12
S	0	2	9	11	3	0	25
SSW	0	0	1	3	1	0	5
SW	0	7	5	3	0	0	15
WSW	0	1	4	4	1	1	11
W	0	1	2	4	0	0	7
WNW	0	1	8	19	3	0	31
NW	0	3	4	2	7	0	16
NNW	0	1	4	2	1	0	8
Variable	0	0	0	0	0	0	0
Total	0	22	65	66	22	5	180

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Neutral - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	22	11	1	0	0	35
NNE	1	19	24	1	0	0	45
NE	0	15	20	27	1	0	63
ENE	1	25	26	23	11	8	94
E	0	15	28	44	10	4	101
ESE	0	10	23	15	4	6	58
SE	0	9	21	9	1	0	40
SSE	0	4	5	5	0	0	14
S	0	2	17	8	3	2	32
SSW	1	8	16	5	10	0	40
SW	0	4	21	7	3	5	40
WSW	0	8	12	7	5	1	33
W	0	6	15	11	5	1	38
WNW	0	14	31	21	18	9	93
NW	0	4	29	21	9	0	63
NNW	0	5	9	34	5	0	53
Variable	0	0	0	0	0	0	0
Total	4	170	308	239	85	36	842

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Slightly Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	14	2	0	0	0	18
NNE	1	23	9	0	0	0	33
NE	2	8	7	6	0	0	23
ENE	0	3	34	6	0	0	43
E	0	20	56	17	7	0	100
ESE	1	11	3	6	3	0	24
SE	0	9	4	4	0	0	17
SSE	2	1	6	4	0	0	13
S	0	6	10	10	7	0	33
SSW	0	8	11	10	8	0	37
SW	2	10	14	16	2	0	44
WSW	0	9	8	3	0	1	21
W	2	10	17	2	5	1	37
WNW	1	13	8	6	0	17	45
NW	3	10	9	2	0	0	24
NNW	0	1	7	0	0	0	8
Variable	0	0	0	0	0	0	0
Total	16	156	205	92	32	19	520

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Moderately Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	8	1	0	0	0	10
NNE	0	4	0	0	0	0	4
NE	0	2	0	0	0	0	2
ENE	1	1	0	0	0	0	2
E	0	13	7	1	0	0	21
ESE	0	9	7	2	0	0	18
SE	1	12	10	0	0	0	23
SSE	1	16	10	0	0	0	27
S	1	9	9	3	0	0	22
SSW	0	4	5	3	0	0	12
SW	1	5	8	2	0	0	16
WSW	3	10	10	1	0	0	24
W	0	5	2	0	0	0	7
WNW	0	15	1	0	0	0	16
NW	2	10	1	0	0	0	13
NNW	2	8	0	0	0	0	10
Variable	0	0	0	0	0	0	0
Total	13	131	71	12	0	0	227

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Extremely Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	0	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	1	0	0	0	0	0	1
E	2	5	1	0	0	0	8
ESE	1	8	2	0	0	0	11
SE	1	12	5	0	0	0	18
SSE	0	18	18	0	0	0	36
S	1	14	18	0	0	0	33
SSW	0	7	13	0	0	0	20
SW	0	4	21	0	0	0	25
WSW	0	3	8	0	0	0	11
W	0	14	1	0	0	0	15
WNW	0	14	0	0	0	0	14
NW	0	7	1	0	0	0	8
NNW	0	3	2	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	6	112	90	0	0	0	208

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Extremely Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	5	5
SW	0	0	0	0	0	1	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	0	0	0	0	6	6

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Moderately Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

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

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Slightly Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	2	1	0	4
NE	0	0	0	0	6	0	6
ENE	0	0	0	2	1	0	3
E	0	0	0	0	0	4	4
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	3	2	1	6
SSW	0	0	0	0	4	6	10
SW	0	0	0	5	1	1	7
WSW	0	0	1	1	5	0	7
W	0	0	2	1	1	0	4
WNW	0	0	2	1	0	1	4
NW	0	0	0	3	4	2	9
NNW	0	0	0	1	1	0	2
Variable	0	0	0	0	0	0	0
Total	0	0	6	19	26	15	66

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Neutral - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	15	10	2	0	30
NNE	0	8	19	27	6	1	61
NE	0	13	11	27	39	7	97
ENE	2	12	18	32	20	30	114
E	1	7	18	30	39	12	107
ESE	0	6	19	14	9	15	63
SE	0	6	15	16	6	2	45
SSE	1	1	7	12	3	0	24
S	0	0	11	32	15	10	68
SSW	0	1	10	21	5	22	59
SW	0	5	21	10	9	10	55
WSW	0	3	11	20	21	9	64
W	0	3	10	14	10	7	44
WNW	0	12	25	50	36	32	155
NW	0	5	32	18	32	35	122
NNW	0	1	6	7	19	3	36
Variable	0	0	0	0	0	0	0
Total	4	86	248	340	271	195	1144

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: 3

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Slightly Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	6	4	0	0	13
NNE	0	1	4	23	4	1	33
NE	1	1	10	8	0	0	20
ENE	1	2	14	30	11	0	58
E	0	3	9	23	17	20	72
ESE	1	1	8	21	10	9	50
SE	1	3	9	6	4	2	25
SSE	0	2	3	5	3	4	17
S	0	0	4	3	9	18	34
SSW	0	0	5	5	12	25	47
SW	0	0	5	10	15	24	54
WSW	1	1	7	11	6	2	28
W	0	1	7	11	10	9	38
WNW	0	7	8	14	14	20	63
NW	0	3	9	10	11	1	34
NNW	0	5	9	8	3	0	25
Variable	0	0	0	0	0	0	0
Total	6	32	117	192	129	135	611

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

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Moderately Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	4	1	1	0	9
NNE	0	4	1	1	0	0	6
NE	1	3	0	1	0	0	5
ENE	0	1	4	1	0	0	6
E	0	0	0	6	4	0	10
ESE	1	1	1	4	2	4	13
SE	0	2	2	10	3	6	23
SSE	0	0	1	5	8	3	17
S	1	2	2	4	5	17	31
SSW	0	0	4	7	4	20	35
SW	0	0	0	4	4	5	13
WSW	0	2	0	3	5	4	14
W	0	0	0	3	3	2	8
WNW	1	1	4	1	1	1	9
NW	1	0	4	6	3	0	14
NNW	0	0	4	4	3	0	11
Variable	0	0	0	0	0	0	0
Total	6	18	31	61	46	62	224

Hours of calm in this stability class: 1
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

LaSalle County Generating Station

Period of Record: April - June 2007
Stability Class - Extremely Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	1	1	0	0	0	0	2
ESE	0	1	1	0	1	1	4
SE	1	0	0	3	2	0	6
SSE	0	2	0	4	5	1	12
S	0	0	0	3	0	11	14
SSW	1	0	1	2	2	12	18
SW	1	2	2	2	4	3	14
WSW	1	1	0	2	4	13	21
W	0	1	3	2	0	0	6
WNW	0	0	2	2	0	0	4
NW	0	0	1	5	0	0	6
NNW	0	0	0	1	0	0	1
Variable	0	0	0	0	0	0	0
Total	5	9	10	26	18	41	109

Hours of calm in this stability class: 1
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

LaSalle County Generating Station

Period of Record: July - September 2007
Stability Class - Extremely Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

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

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Moderately Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	1	1	0	0	2
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	1	1	0	0	0	2
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	2	0	0	2
SSW	0	0	10	7	0	0	17
SW	0	2	19	7	0	0	28
WSW	0	0	6	5	2	0	13
W	0	0	7	6	0	0	13
WNW	0	0	16	3	0	0	19
NW	0	0	4	2	0	0	6
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	3	66	33	2	0	104

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

LaSalle County Generating Station

Period of Record: July - September 2007
Stability Class - Slightly Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	5	1	0	0	9
NNE	0	10	6	0	0	0	16
NE	0	4	7	0	0	0	11
ENE	0	0	8	0	0	0	8
E	0	3	1	0	0	0	4
ESE	0	1	0	0	0	0	1
SE	0	0	1	1	0	0	2
SSE	0	1	1	0	0	0	2
S	0	1	4	4	0	0	9
SSW	0	0	6	6	2	0	14
SW	0	9	17	6	0	0	32
WSW	0	8	10	4	0	0	22
W	0	6	6	4	1	0	17
WNW	0	8	13	1	0	0	22
NW	0	3	4	3	0	0	10
NNW	0	1	8	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	0	58	97	30	3	0	188

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Neutral - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	34	15	1	0	0	52
NNE	2	46	6	0	0	0	54
NE	1	24	23	2	0	0	50
ENE	0	24	20	4	0	0	48
E	1	34	20	2	0	0	57
ESE	0	20	9	1	0	0	30
SE	1	18	17	0	0	0	36
SSE	1	24	18	1	0	0	44
S	3	12	19	20	0	0	54
SSW	2	6	17	17	0	0	42
SW	1	17	22	7	0	0	47
WSW	0	28	19	14	0	0	61
W	0	16	11	6	1	0	34
WNW	1	25	17	2	3	0	48
NW	0	13	9	4	1	0	27
NNW	1	15	28	14	0	0	58
Variable	0	0	0	0	0	0	0
Total	16	356	270	95	5	0	742

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Slightly Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	34	5	0	0	0	42
NNE	4	31	6	0	0	0	41
NE	2	8	18	0	0	0	28
ENE	3	7	21	3	0	0	34
E	0	17	21	0	0	0	38
ESE	4	10	11	0	0	0	25
SE	3	11	5	0	0	0	19
SSE	2	5	13	1	0	0	21
S	2	9	16	3	3	0	33
SSW	2	13	19	2	1	0	37
SW	0	18	25	13	0	0	56
WSW	3	7	10	3	0	0	23
W	1	4	6	0	1	0	12
WNW	3	11	8	1	0	0	23
NW	1	7	4	2	0	0	14
NNW	2	16	11	0	0	0	29
Variable	0	0	0	0	0	0	0
Total	35	208	199	28	5	0	475

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Moderately Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	19	0	0	0	0	21
NNE	0	9	0	0	0	0	9
NE	1	1	0	0	0	0	2
ENE	0	1	0	0	0	0	1
E	1	34	14	0	0	0	49
ESE	1	25	3	0	0	0	29
SE	1	18	2	0	0	0	21
SSE	4	17	11	0	0	0	32
S	0	15	4	0	0	0	19
SSW	4	19	8	0	0	0	31
SW	1	17	18	0	0	0	36
WSW	1	11	1	0	0	0	13
W	1	15	1	0	0	0	17
WNW	3	20	4	0	0	0	27
NW	1	11	0	0	0	0	12
NNW	1	6	2	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	22	238	68	0	0	0	328

Hours of calm in this stability class: 2
Hours of missing wind measurements in this stability class: 1
Hours of missing stability measurements in all stability classes: 0

LaSalle County Generating Station

Period of Record: July - September 2007
Stability Class - Extremely Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	8	0	0	0	0	9
NNE	0	5	0	0	0	0	5
NE	1	0	0	0	0	0	1
ENE	1	1	0	0	0	0	2
E	2	9	4	0	0	0	15
ESE	3	29	6	0	0	0	38
SE	0	45	8	0	0	0	53
SSE	1	37	15	0	0	0	53
S	0	21	2	0	0	0	23
SSW	0	23	12	0	0	0	35
SW	0	22	16	0	0	0	38
WSW	1	20	11	0	0	0	32
W	2	11	1	0	0	0	14
WNW	0	8	0	0	0	0	8
NW	1	6	0	0	0	0	7
NNW	0	3	0	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	13	248	75	0	0	0	336

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Extremely Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

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

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

LaSalle County Generating Station

Period of Record: July - September 2007
Stability Class - Moderately Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	1
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	0	1	0	1	2

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Slightly Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	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	4	6	5	3	18
SW	0	0	4	1	5	0	10
WSW	0	0	0	0	2	2	4
W	0	0	0	0	0	0	0
WNW	0	0	1	3	0	0	4
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	10	10	12	5	37

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Neutral - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	20	24	9	2	0	55
NNE	0	20	44	10	0	0	74
NE	2	15	24	26	4	0	71
ENE	0	11	22	26	0	0	59
E	1	17	26	7	1	0	52
ESE	0	10	10	9	2	0	31
SE	0	14	11	8	3	0	36
SSE	0	16	10	7	0	0	33
S	0	4	8	22	17	4	55
SSW	1	1	12	36	17	15	82
SW	3	13	29	37	16	4	102
WSW	0	6	41	10	19	4	80
W	0	7	21	14	5	3	50
WNW	0	14	30	30	5	3	82
NW	1	11	23	21	11	1	68
NNW	0	9	14	17	10	0	50
Variable	0	0	0	0	0	0	0
Total	8	188	349	289	112	34	980

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Slightly Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	15	16	17	0	52
NNE	0	5	15	24	2	0	46
NE	0	4	5	29	5	0	43
ENE	0	4	15	42	8	0	69
E	2	9	10	17	7	0	45
ESE	0	8	6	5	6	3	28
SE	1	4	11	5	6	1	28
SSE	0	5	5	7	6	2	25
S	0	6	6	8	11	9	40
SSW	0	1	3	9	12	17	42
SW	2	5	8	10	22	18	65
WSW	1	7	3	12	10	5	38
W	1	1	6	11	5	1	25
WNW	1	7	4	11	5	2	30
NW	0	2	8	11	11	3	35
NNW	2	5	4	6	7	1	25
Variable	0	0	0	0	0	0	0
Total	11	76	124	223	140	62	636

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 County Generating Station

Period of Record: July - September 2007
Stability Class - Moderately Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	2	3	1	0	10
NNE	0	6	6	3	3	0	18
NE	0	3	4	8	0	0	15
ENE	1	2	3	0	1	0	7
E	0	2	4	11	8	0	25
ESE	1	9	13	8	10	2	43
SE	0	2	5	9	5	5	26
SSE	0	5	4	4	9	6	28
S	0	6	3	4	11	8	32
SSW	0	4	4	4	13	7	32
SW	0	3	8	12	12	15	50
WSW	0	0	5	5	3	2	15
W	0	1	9	5	5	0	20
WNW	0	0	4	3	6	0	13
NW	0	0	2	7	4	1	14
NNW	0	1	3	7	1	0	12
Variable	0	0	0	0	0	0	0
Total	3	47	79	93	92	46	360

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

LaSalle County Generating Station

Period of Record: July - September 2007
Stability Class - Extremely Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	1	0	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	1	0	1	0	0	2
ESE	0	0	0	5	3	2	10
SE	0	1	0	4	8	15	28
SSE	0	0	0	0	13	22	35
S	0	1	3	4	3	16	27
SSW	0	3	6	5	5	9	28
SW	0	1	5	7	5	12	30
WSW	1	0	2	4	2	5	14
W	0	2	2	6	2	0	12
WNW	0	0	0	0	3	0	3
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	1	11	18	36	44	81	191

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 County Generating Station

Period of Record: October - December2007
Stability Class - Extremely Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	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	1	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: 3

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Moderately Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	1	1	0	0	2
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	1	2	1	1	5
SW	0	0	0	3	0	0	3
WSW	0	0	0	1	0	0	1
W	0	0	0	1	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	0	2	8	1	1	12

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Slightly Unstable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	2	0	0	0	2
NNE	0	0	1	3	0	0	4
NE	0	0	0	1	0	0	1
ENE	0	0	0	0	1	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	1	0	0	1
S	0	0	0	1	0	0	1
SSW	0	0	6	5	0	1	12
SW	0	0	2	4	0	0	6
WSW	0	0	0	3	0	0	3
W	0	0	0	0	0	3	3
WNW	0	0	0	0	0	0	0
NW	0	0	0	1	0	0	1
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	11	19	1	4	35

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Neutral - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	27	27	23	5	0	84
NNE	1	23	33	10	0	0	67
NE	0	6	9	8	1	0	24
ENE	0	6	5	9	2	0	22
E	0	8	8	12	0	0	28
ESE	1	3	15	10	1	0	30
SE	0	6	13	5	1	0	25
SSE	0	4	22	11	6	1	44
S	1	4	31	13	0	1	50
SSW	0	4	30	6	6	3	49
SW	0	2	37	21	2	3	65
WSW	1	4	14	5	10	2	36
W	2	11	35	29	22	16	115
WNW	0	14	24	37	12	0	87
NW	1	11	22	40	26	4	104
NNW	0	3	42	37	11	1	94
Variable	0	0	0	0	0	0	0
Total	9	136	367	276	105	31	924

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Slightly Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	23	7	2	0	0	34
NNE	2	16	14	0	0	0	32
NE	0	3	12	3	0	0	18
ENE	2	2	4	2	0	0	10
E	0	11	13	2	0	0	26
ESE	0	17	27	5	0	0	49
SE	1	10	10	18	1	0	40
SSE	0	9	17	16	4	0	46
S	0	10	21	21	6	0	58
SSW	1	12	17	27	5	0	62
SW	0	15	20	24	3	1	63
WSW	1	13	11	19	1	0	45
W	0	13	15	12	5	0	45
WNW	5	19	16	7	27	12	86
NW	2	16	26	12	6	0	62
NNW	0	15	24	1	0	0	40
Variable	0	0	0	0	0	0	0
Total	16	204	254	171	58	13	716

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Moderately Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	5	2	0	0	0	8
NNE	1	2	0	0	0	0	3
NE	0	0	0	0	0	0	0
ENE	0	1	1	0	0	0	2
E	0	1	5	0	0	0	6
ESE	2	5	5	0	0	0	12
SE	0	3	9	0	0	0	12
SSE	1	5	9	0	0	0	15
S	0	14	19	7	0	0	40
SSW	0	14	14	14	0	0	42
SW	0	6	24	11	0	0	41
WSW	1	0	13	1	0	0	15
W	1	10	8	1	0	0	20
WNW	0	13	6	0	0	0	19
NW	0	12	14	0	0	0	26
NNW	1	0	1	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	8	91	130	34	0	0	263

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Extremely Stable - 200Ft-33Ft Delta-T (F)
Winds Measured at 33 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	5	2	0	0	0	7
SE	0	17	3	0	0	0	20
SSE	2	34	9	0	0	0	45
S	0	30	22	1	0	0	53
SSW	0	15	16	0	0	0	31
SW	0	8	25	0	0	0	33
WSW	0	9	12	0	0	0	21
W	0	13	5	0	0	0	18
WNW	0	10	3	0	0	0	13
NW	0	5	6	0	0	0	11
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	3	146	104	1	0	0	254

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Extremely Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

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

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Moderately Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

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

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Slightly Unstable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	1	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	2	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	0	0	1	2	0	3

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Neutral - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	10	12	12	25	10	69
NNE	0	6	16	20	23	4	69
NE	0	4	3	13	10	5	35
ENE	0	5	7	12	6	1	31
E	0	1	7	8	7	1	24
ESE	0	4	3	12	6	4	29
SE	0	0	7	9	7	1	24
SSE	0	0	8	10	6	11	35
S	0	1	15	26	8	5	55
SSW	0	2	14	32	13	15	76
SW	1	6	15	32	15	7	76
WSW	0	2	14	7	6	38	67
W	0	2	22	23	23	22	92
WNW	0	6	11	18	23	31	89
NW	0	7	27	18	39	35	126
NNW	2	4	11	23	20	12	72
Variable	0	0	0	0	0	0	0
Total	3	60	192	275	237	202	969

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 5
Hours of missing stability measurements in all stability classes: 3

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Slightly Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	5	6	10	3	27
NNE	0	4	14	14	2	0	34
NE	1	2	7	9	3	1	23
ENE	1	3	8	3	1	0	16
E	1	2	2	5	3	2	15
ESE	0	1	1	1	9	3	15
SE	1	0	2	15	13	15	46
SSE	0	2	6	21	15	9	53
S	0	2	6	23	20	25	76
SSW	0	2	3	21	17	57	100
SW	0	2	6	14	25	31	78
WSW	0	2	9	11	5	16	43
W	0	0	9	12	7	18	46
WNW	1	2	5	9	25	58	100
NW	0	9	4	32	8	5	58
NNW	2	2	4	10	13	2	33
Variable	0	0	0	0	0	0	0
Total	7	38	91	206	176	245	763

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 27
Hours of missing stability measurements in all stability classes: 3

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Moderately Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	1	2	5	2	12
NNE	0	0	3	0	0	0	3
NE	0	0	2	0	0	0	2
ENE	0	0	3	0	0	0	3
E	0	1	0	0	0	0	1
ESE	0	1	0	1	2	4	8
SE	0	0	4	1	2	4	11
SSE	0	1	2	4	2	8	17
S	1	0	7	7	7	16	38
SSW	0	0	11	15	16	35	77
SW	0	4	5	6	11	6	32
WSW	1	2	4	9	12	8	36
W	0	2	1	7	5	4	19
WNW	1	2	4	8	5	2	22
NW	0	3	1	5	4	4	17
NNW	0	0	2	5	5	1	13
Variable	0	0	0	0	0	0	0
Total	3	18	50	70	76	94	311

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

LaSalle County Generating Station

Period of Record: October - December2007
Stability Class - Extremely Stable - 375Ft-33Ft Delta-T (F)
Winds Measured at 375 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	0	1	0	0	0	1
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	2	3	5
SSE	0	0	1	12	2	4	19
S	0	0	1	9	5	5	20
SSW	0	0	1	3	12	13	29
SW	0	0	2	2	19	21	44
WSW	0	0	0	0	0	1	1
W	0	0	0	0	1	1	2
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	1	3	0	4
Variable	0	0	0	0	0	0	0
Total	0	1	7	27	44	48	127

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

APPENDIX G

ANNUAL RADIOLOGICAL GROUNDWATER PROTECTION PROGRAM REPORT (ARGPPR)

Docket No: 50-373
50-374

LASALLE COUNTY STATION
UNITS 1 and 2

Annual Radiological
Groundwater Protection Program Report

1 January Through 31 December 2007

Prepared By

Teledyne Brown Engineering
Environmental Services

Exelon SM
Nuclear

LaSalle County Station
Marseilles, IL 61341

May 2008

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Appendices

I. Summary and Conclusions

In 2006, Exelon instituted a comprehensive program to evaluate the impact of station operations on groundwater and surface water in the vicinity of LaSalle County Station. This evaluation involved numerous station personnel and contractor support personnel. Baseline sampling efforts included the use of six surface water locations, two of which were already included in LaSalle's REMP sampling program, and seventeen groundwater well sampling locations. Following baseline sampling and subsequent recommendations, LaSalle's RGPP program now consists of the six surface water and nine groundwater well sampling locations. The results for LaSalle's RGPP sampling efforts in 2007 are included in this report.

This is the second in a series of annual reports on the status of the Radiological Groundwater Protection Program (RGPP) conducted at LaSalle County Station. This report covers groundwater and surface water samples, collected from the environment, both on and off station property in 2007. During that time period, 32 analyses were performed on 32 samples from 15 locations, (6 surface water and 9 ground water wells. The monitoring was conducted during two periods. Period 1 of the monitoring was conducted in April 2007 by a vendor sample collector with LaSalle Station personnel in attendance. Period 2 was conducted in October 2007 by Station personnel with the vendor sample collector providing assistance. Future sampling will be conducted by Station personnel.

In assessing all the data gathered for this report, it was concluded that the operation of LaSalle County Station had no adverse radiological impact on the environment, and there are no known active releases into the groundwater at LaSalle County Station.

The Station's on-going monitoring program consists of analyzing for tritium semi-annually, with gamma emitters and Strontium-89/90 analyzed on a biennial basis. As such, gamma emitting nuclides and Strontium-89/90 were not evaluated in 2007. These analyses are scheduled to be performed during 2008.

In the case of tritium, Exelon specified that its laboratories achieve a lower limit of detection 10 times lower than that required by federal regulation.

Tritium was not detected in any of the groundwater or surface water samples at concentrations greater than the United States Environmental Protection Agency (USEPA) drinking water standard (and the Nuclear Regulatory Commission Reporting Limit) of 20,000 pCi/L. Low levels of tritium were detected at concentrations greater than the LLD of 200 pCi/L in 1of 9 groundwater monitoring locations. The tritium concentrations ranged from 816 ± 151 pCi/L to 826 ± 166 pCi/L. No tritium was detected in the six surface water samples above specified

LLD. Elevated tritium levels (> 200 pCi/L) observed in the single well location are believed to be associated with the 2001 CY tank rupture as documented in the stations 10CFR75g report.

II. Introduction

The LaSalle County Station (LCS), consisting of two boiling water reactors, each rated for 3489 MWt, owned and operated by Exelon Corporation, is located in LaSalle County, Illinois. Unit No. 1 went critical on 16 March 1982. Unit No. 2 went critical on 02 December 1983. The site is located in northern Illinois, approximately 75 miles southwest of Chicago, Illinois.

This report covers those analyses performed by Teledyne Brown Engineering (TBE) and Environmental Inc. (Midwest Labs) on samples collected in 2007.

A. Objective of the RGPP

The long-term objectives of the RGPP are as follows:

1. Identify suitable locations to monitor and evaluate potential impacts from station operations before significant radiological impact to the environment and potential drinking water sources.

2. Understand the local hydrogeologic regime in the vicinity of the station and maintain up-to-date knowledge of flow patterns on the surface and shallow subsurface.

3. Perform routine water sampling and radiological analysis of water from selected locations.

4. Report new leaks, spills, or other detections with potential radiological significance to stakeholders in a timely manner.

5. Regularly assess analytical results to identify adverse trends.

6. Take necessary corrective actions to protect groundwater resources.

B. Implementation of the Objectives

The objectives identified have been implemented at LaSalle County Station as discussed below:

1. Exelon and its consultant identified locations as described in the 2006 Phase 1 study. Phase 1 studies were conducted by Conestoga Rovers and Associates (CRA) and the results and conclusions were made available to state and federal regulators as well as the public on an Exelon web site in station specific reports.

   http://www.exelonCorp.com/ourcompanies/powergen/nuclear/Tritium.htm

2. The LaSalle County Station reports describe the local hydrogeologic regime. Periodically, the flow patterns on the surface and shallow subsurface are updated based on ongoing measurements.

3. LaSalle County Station will continue to perform routine sampling and radiological analysis of water from selected locations.

4. LaSalle County Station has implemented new procedures to identify and report new leaks, spills, or other detections with potential radiological significance in a timely manner.

5. LaSalle County Station staff and consulting hydrogeologist assess analytical results on an ongoing basis to identify adverse trends.

C. Program Description

1. Sample Collection

   Sample locations can be found in Table A—1, Appendix A.

   Groundwater and Surface Water

   Samples of water are collected, managed, transported and analyzed in accordance with approved procedures following EPA methods. Both groundwater and surface samples water are collected. Sample locations, sample collection frequencies and analytical frequencies are controlled in accordance with approved station procedures. Contractor and/or station personnel are trained in the collection, preservation management, and shipment of samples, as well as in documentation of sampling events. Analytical laboratories are subject to internal quality assurance programs, industry cross-check programs, as well as nuclear industry audits. Station personnel review and evaluate all analytical data deliverables as data are received.

Analytical data results are reviewed by both station personnel and an independent hydrogeologist for adverse trends or changes to hydrogeologic conditions.

D. Characteristics of Tritium (H-3)

Tritium (chemical symbol H-3) is a radioactive isotope of hydrogen. The most common form of tritium is tritium oxide, which is also called "tritiated water." The chemical properties of tritium are essentially those of ordinary hydrogen.

Tritiated water behaves the same as ordinary water in both the environment and the body. Tritium can be taken into the body by drinking water, breathing air, eating food, or absorption through skin. Once tritium enters the body, it disperses quickly and is uniformly distributed throughout the body. Tritium is excreted primarily through urine with a clearance rate characterized by an effective biological half-life of about 14 days. Within one month or so after ingestion, essentially all tritium is cleared. Organically bound tritium (tritium that is incorporated in organic compounds) can remain in the body for a longer period.

Tritium is produced naturally in the upper atmosphere when cosmic rays strike air molecules. Tritium is also produced during nuclear weapons explosions, as a by-product in reactors producing electricity, and in special production reactors, where the isotopes lithium-7 and/or boron-10 are activated to produce tritium. Like normal water, tritiated water is colorless and odorless. Tritiated water behaves chemically and physically like non-tritiated water in the subsurface, and therefore tritiated water will travel at the same velocity as the average groundwater velocity.

Tritium has a half-life of approximately 12.3 years. It decays spontaneously to helium-3 (3He). This radioactive decay releases a beta particle (low-energy electron). The radioactive decay of tritium is the source of the health risk from exposure to tritium. Tritium is one of the least dangerous radionuclides because it emits very weak radiation and leaves the body relatively quickly. Since tritium is almost always found as water, it goes directly into soft tissues and organs. The associated dose to these tissues is generally uniform and is dependent on the water content of the specific tissue.

III. Program Description

A. Sample Analysis

This section describes the general analytical methodologies used by TBE to analyze the environmental samples for radioactivity for the LaSalle County Station RGPP in 2007.

In order to achieve the stated objectives, the current program includes the following analyses:

1. Concentrations of gamma emitters in groundwater and surface water. (Biennially)

2. Concentrations of strontium in groundwater and surface water. (Biennially)

3. Concentrations of tritium in groundwater and surface water. (Semi-annually)

B. Data Interpretation

The radiological data collected prior to LaSalle County Station becoming operational were used as a baseline with which these operational data were compared. For the purpose of this report, LaSalle County Station was considered operational at initial criticality. Several factors were important in the interpretation of the data:

1. Lower Limit of Detection and Minimum Detectable Concentration

The lower limit of detection (LLD) is specified by federal regulation as a minimum sensitivity value that must be achieved routinely by the analytical parameter.

2. Laboratory Measurements Uncertainty

The estimated uncertainty in measurement of tritium in environmental samples is frequently on the order of 50% of the measurement value.

Statistically, the exact value of a measurement is expressed as a range with a stated level of confidence. The convention is to report results with a 95% level of confidence. The uncertainty comes from calibration standards, sample volume or weight measurements, sampling uncertainty and other factors. Exelon reports the

uncertainty of a measurement created by statistical process (counting error) as well as all sources of error (Total Propagated Uncertainty or TPU). Each result has two values calculated. Exelon reports the TPU by following the result with plus or minus ± the estimated sample standard deviation, as TPU, that is obtained by propagating all sources of analytical uncertainty in measurements.

Analytical uncertainties are reported at the 95% confidence level in this report for reporting consistency with the AREOR.

C. Background Analysis

A pre-operational radiological environmental monitoring program (pre-operational REMP) was conducted to establish background radioactivity levels prior to operation of the Station. The environmental media sampled and analyzed during the pre-operational REMP were atmospheric radiation, fall-out, domestic water, surface water, precipitation, marine life, and foodstuffs. The results of the monitoring were detailed in the report entitled, Environmental Radiological Monitoring for LaSalle County Nuclear Power Station, Commonwealth Edison Company, Annual Reports for the years 1979 and 1981. The pre-operational REMP contained analytical results from samples collected from the surface water and groundwater.

1. Background Concentrations of Tritium

The purpose of the following discussion is to summarize background measurements of tritium in various media performed by others. Additional detail may be found by consulting references (CRA 2006).

a. Tritium Production

Tritium is created in the environment from naturally occurring processes both cosmic and subterranean, as well as from anthropogenic (i.e., man-made) sources. In the upper atmosphere, "Cosmogenic" tritium is produced from the bombardment of stable nuclides and combines with oxygen to form tritiated water, which will then enter the hydrologic cycle. Below ground, "lithogenic" tritium is produced by the bombardment of natural lithium present in crystalline rocks by neutrons produced by the radioactive decay of naturally abundant uranium and thorium. Lithogenic production of tritium is usually negligible compared to other sources due to

the limited abundance of lithium in rock. The lithogenic tritium is introduced directly to groundwater.

A major anthropogenic source of tritium and strontium-90 comes from the former atmospheric testing of thermonuclear weapons. Levels of tritium in precipitation increased significantly during the 1950s and early 1960s, and later with additional testing, resulting in the release of significant amounts of tritium to the atmosphere. The Canadian heavy water nuclear power reactors, other commercial power reactors, nuclear research and weapons production continue to influence tritium concentrations in the environment.

b. Precipitation Data

Precipitation samples are routinely collected at stations around the world for the analysis of tritium and other radionuclides. Two publicly available databases that provide tritium concentrations in precipitation are Global Network of Isotopes in Precipitation (GNIP) and USEPA's RadNet database. GNIP provides tritium precipitation concentration data for samples collected world wide from 1960 to 2006. RadNet provides tritium precipitation concentration data for samples collected at stations through out the U.S. from 1960 up to and including 2006. Based on GNIP data for sample stations located in the U.S. Midwest, tritium concentrations peaked around 1963. This peak, which approached 10,000 pCi/L for some stations, coincided with the atmospheric testing of thermonuclear weapons. Tritium concentrations in surface water showed a sharp decline up until 1975 followed by a gradual decline since that time. Tritium concentrations in Midwest precipitation have typically been below 100 pCi/L since around 1980. LaSalle's 1979 or 1981 pre-operational REMP showed precipitation tritium concentrations >300. Tritium concentrations in wells may still be above the 200 pCi/L detection limit from the external causes described above. Water from previous years and decades is naturally captured in groundwater, so some well water sources today are affected by the surface water from the 1960s that was elevated in tritium.

Surface Water Data

Tritium concentrations are routinely measured in large surface water bodies, including Lake Michigan and the

Mississippi River. Illinois surface water data were typically less than 100 pCi/L. Illinois River H3 results have shown >200 pCi/L, as evidenced in LaSalle's REMP program sample results. This could be attributable to release for Braidwood and Dresden upstream

The USEPA RadNet surface water data typically has a reported 'Combined Standard Uncertainty' of 35 to 50 pCi/L. According to USEPA, this corresponds to a ± 70 to 100 pCi/L 95% confidence bound on each given measurement. Therefore, the typical background data provided may be subject to measurement uncertainty of approximately ± 70 to 100 pCi/L.

The radio-analytical laboratory is counting tritium results to an Exelon specified LLD of 200 pCi/L. Typically, the lowest positive measurement will be reported within a range of 40 – 240 pCi/L or 140 ± 100 pCi/L. Clearly, these sample results cannot be distinguished as different from background at this concentration.

IV. Results and Discussion

A. Groundwater Results

Groundwater

Samples were collected from on and off-site wells throughout the year in accordance with the station radiological groundwater protection program. Analytical results and anomalies are discussed below.

Tritium

Samples from all locations were analyzed for tritium activity (Table B–I.1, Appendix B). Tritium values were <LLD with the exception of the one on-site well location that showed a maximum concentration of 826 pCi/l. Outside of the owner-controlled area, tritium concentrations were less than the detection limit . Based on the hyrogeological study conducted at LaSalle, there is no feasible pathway into a drinking water supply. Based on established aquifer flow paths the location most representative of potential offsite release into groundwater was also less than the detection limit.

Strontium

Strontium-90 was not evaluated in 2007.

Gamma Emitters

Gamma emitters were not evaluated in 2007.

B. Drinking Water Well Survey

A drinking water well survey was conducted during the summer 2006 by CRA (CRA 2006) around the LaSalle County Station. This survey concluded that no residents in the vicinity of the plant utilize the shallow water aquifer as a drinking water supply. Site hydrological studies of aquifer flow and permeation rates from the shallow aquifer to the deep aquifer concluded that there is no feasible dose receptor via a ground water pathway at LaSalle.

C. Summary of Results – Inter-Laboratory Comparison Program

Inter-Laboratory Comparison Program results for TBE and Environmental Inc. (Midwest Labs) are presented in the AREOR.

D. Leaks, Spills, and Releases

No new leaks or spills were discovered through efforts conducted at LaSalle Station. Historical spills were captured in the CSA report as well as the Station's 10CFR75g reports.

E. Trends

Baseline data established at LaSalle revealed no current ground water issues. On-going monitoring through the RGPP will allow for early detection of any potential threats to groundwater on and around the site.

F. Investigations

There were no anomalous result investigations conducted at for LaSalle RGPP sample results in 2007.

G. Actions Taken

1. Compensatory Actions

There were no required compensatory actions as a result of RGPP

monitoring at LaSalle in 2007.

2. Installation of Monitoring Wells

   No new monitoring wells were added beyond the initial phase for LaSalle in 2007.

3. Actions to Recover/Reverse Plumes

   2007 LaSalle RGPP efforts resulted in no required actions.

Figure A-1: LaSalle County Station Map of Groundwater Monitoring Sample Locations

APPENDIX A

LOCATION DESIGNATION & DISTANCE

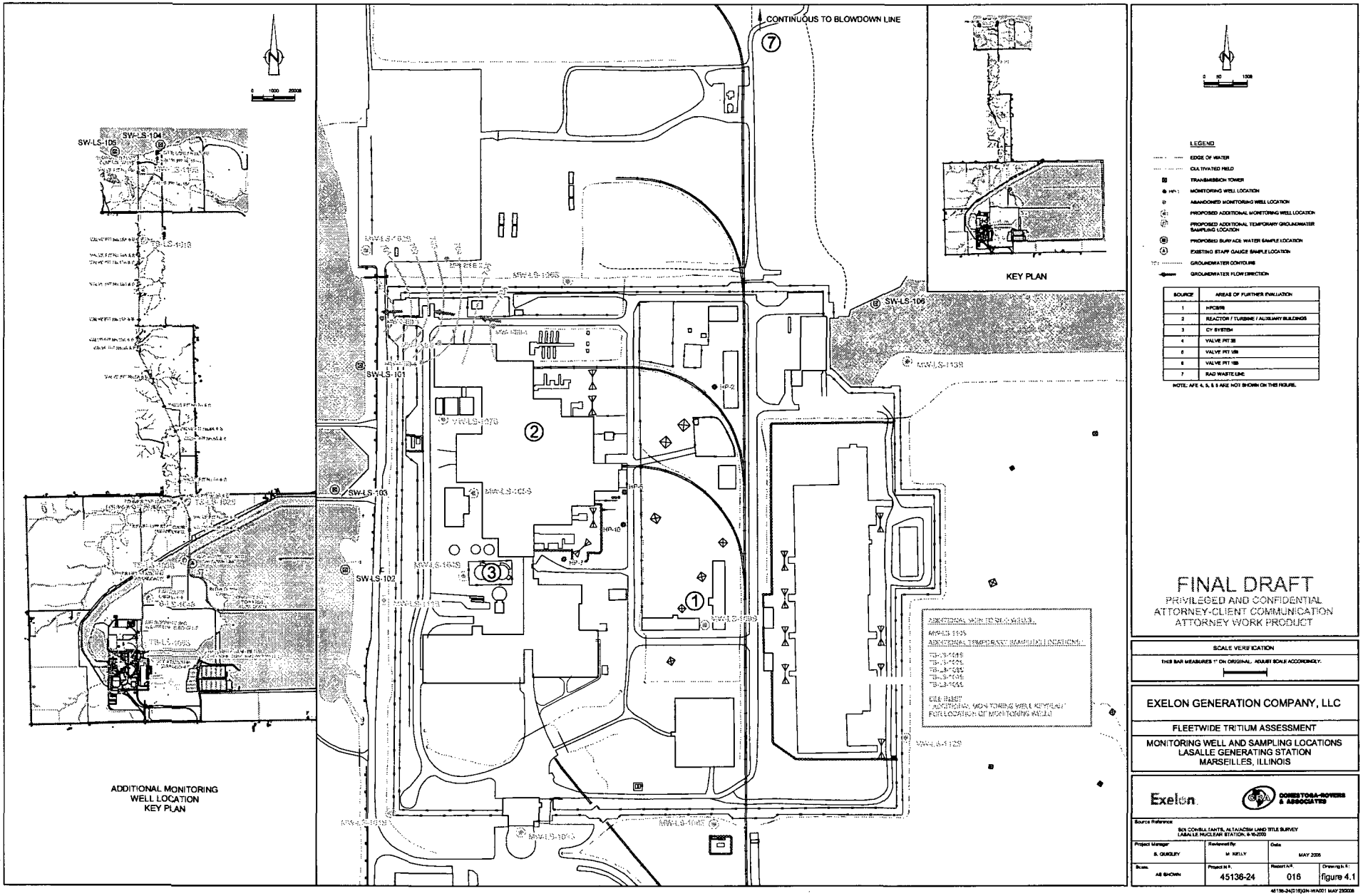
Table A-1
LaSalle County Station Groundwater Monitoring Sample Point List

Sample No.	Location	Current Well Status
SW-LS-101	North Storm Water Pond	Active
SW-LS-102	South Storm Water Pond	Active
SW-LS-103	Circ Water Discharge Canal	Active
SW-LS-104	Illinois River Upstream at Seneca (Boondocks)	Active
SW-LS-105	Illinois River Downstream at Marseilles (Illini State Park Boat Ramp)	Active
SW-LS-106	Circ Water Intake Bay	Active
MW-LS-101S	SW Corner of Perimiter Road	Inactive
MW-LS-102S	OLD Parking Lot West (Lake) Side	Inactive
MW-LS-103S	MAF South Centerline	Inactive
MW-LS-104S	CY Storage Tanks	Active
MW-LS-105S	Behind IRSF	Active
MW-LS-106S	Spare Transformer Area – Back Toward Security Fence	Active
MW-LS-107S	Old Service Building – Near Outage Trailers	Active
MW-LS-108S	Near 12 KV Swithchyard	Inactive

Sample No.	Location	Current Well Status
MW-LS-109S	Near BDG 33	Inactive
MW-LS-110S	RSH Area by Valve Pit 16B	Inactive
MW-LS-111S	West Perimeter Road before pad mounted transformer (right hand side)	Active
MW-LS-112S	Between perimeter security fences near SE corner. (Access via security gate east of 12 KV switchyard)	Inactive
MW-LS-113S	Between perimeter security fences near CW intake bay. (Access via security gate east of 12 KV switchyard)	Inactive
HP-2	North of tracks near Nuclear Fuel Lay-down Area	Active
HP-5	Near VQ LN2 Storage Tanks	Active
HP-7	Near UAT's	Active
HP-10	Near VQ LN2 Storage Tanks, South of HP-5	Active

FIGURE A-1

LASALLE COUNTY STATION MAP OF GROUNDATER MONITORING SAMPLE LOCATIONS


CONTINUOUS TO BLOWDOWN LINE
KEY PLAN
ADDITIONAL MONITORING WELL LOCATION KEY PLAN
SW-LS-104
SW-LS-105
SW-LS-106
SW-LS-101
SW-LS-103
SW-LS-102
LEGEND
EDGE OF WATER
CULTIVATED FIELD
TRANSMISSION TOWER
MONITORING WELL LOCATION
ABANDONED MONITORING WELL LOCATION
PROPOSED ADDITIONAL MONITORING WELL LOCATION
PROPOSED ADDITIONAL TEMPORARY GROUNDWATER SAMPLING LOCATION
PROPOSED SURFACE WATER SAMPLE LOCATION
EXISTING STAFF GAUGE SAMPLE LOCATION
GROUNDWATER CONTOURS
GROUNDWATER FLOW DIRECTION
SOURCE
AREAS OF FURTHER EVALUATION
1 HPCB/R
2 REACTOR / TURBINE / AUXILIARY BUILDINGS
3 CY SYSTEM
4 VALVE PIT 3B
5 VALVE PIT 1B
6 VALVE PIT 1BB
7 RAD WASTE LINE
NOTE: AFE 4, 5, & 6 ARE NOT SHOWN ON THIS FIGURE.
FINAL DRAFT
PRIVILEGED AND CONFIDENTIAL
ATTORNEY-CLIENT COMMUNICATION
ATTORNEY WORK PRODUCT
SCALE VERIFICATION
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.
EXELON GENERATION COMPANY, LLC
FLEETWIDE TRITIUM ASSESSMENT
MONITORING WELL AND SAMPLING LOCATIONS
LASALLE GENERATING STATION
MARSEILLES, ILLINOIS
Exelon
CONESTOGA-ROVERS & ASSOCIATES
Source Reference:
SOS CONSULTANTS, ALTA/ACSM LAND TITLE SURVEY
LASALLE NUCLEAR STATION, 8-16-2000
Project Manager: S. QUIGLEY
Reviewed By: M. KELLY
Date: MAY 2005
Scale: AS SHOWN
Project No.: 45136-24
Report No.: 016
Drawing No.: figure 4.1
45136-24(016)GN-WA001 MAY 25/2005

APPENDIX B

DATA TABLES

TABLE B-I.1 **CONCENTRATIONS OF TRITIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE		COLLECTION DATE	H-3
HP-2		04/10/07	< 174
HP-2		10/02/07	< 194
HP-5		04/10/07	< 169
HP-5		10/02/07	< 192
HP-7		04/10/07	< 169
HP-7		10/02/07	< 192
HP-10		04/10/07	< 168
HP-10		10/02/07	< 191
MS-LS-104S		04/10/07	< 171
MW-LS-104S		10/02/07	< 190
MS-LS-105S		04/10/07	816 ± 151
MW-LS-105S	EIML	10/02/07	534 ± 95
MW-LS-105S	TBE	10/02/07	826 ± 166
MS-LS-106S		04/11/07	< 171
MW-LS-106S		10/02/07	< 192
MS-LS-107S		04/10/07	< 168
MW-LS-107S		10/02/07	< 192
MS-LS-111S		04/11/07	< 165
MW-LS-111S	EIML	10/02/07	< 145
MW-LS-111S	TBE	10/02/07	< 192

TABLE B-II.1 CONCENTRATIONS OF TRITIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF LASALLE COUNTY STATION, 2007

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3
SW-LS-101	04/11/07	< 172
SW-LS-101	10/01/07	< 192
SW-LS-102	04/11/07	< 165
SW-LS-102	10/01/07	< 194
SW-LS-103	04/11/07	< 169
SW-LS-103	10/01/07	< 195
SW-LS-104	04/11/07	< 170
SW-LS-104	10/01/07	181 ± 114
SW-LS-105	04/11/07	< 170
SW-LS-105	10/01/07	< 191
SW-LS-106	04/11/07	< 167
SW-LS-106	10/01/07	< 191