

Exelon Generation Company, LLC  
LaSalle County Station  
2601 North 21<sup>st</sup> Road  
Marseilles, IL 61341-9757

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April 30, 2001

10 CFR 50.36

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

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

Subject: 2000 Annual Radioactive Effluent Report and Triannual  
Chlorine Survey Report

Enclosed is the Exelon Generation Company, (EGC), LLC, LaSalle County  
Station 2000 Annual Radioactive Effluent Report, submitted in accordance  
with 10 CFR 50.36a(a)(2), and Triannual Chlorine Survey Report.

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

Respectfully,



Charles G. Pardee  
Site Vice President  
LaSalle County Station

Attachment

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

IEA8  
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# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## Supplemental Information

### 1. Regulatory Limits

#### a. Gaseous Effluents

- 1) The air dose due to noble gases released in gaseous effluents, from each reactor unit, from the site shall be limited to the following:
  - a) During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and
  - b) During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.
- 2) The dose to an individual from radioiodines and radioactive materials in particulate form, and radionuclides, other than noble gases, with half-lives greater than eight days in gaseous effluents released, from each reactor unit, from the site shall be limited to the following:
  - a) During any calendar quarter: Less than or equal to 7.5 mRems to any organ, and
  - b) During any calendar year: Less than or equal to 15 mRems to any organ.

#### b. Liquid Effluents

- 1) The dose or dose commitment to an individual from radioactive materials in liquid effluents released, from each reactor unit, from the site shall be limited:
  - a) During any calendar quarter: Less than or equal to 1.5 mRem to the total body and to less than or equal to 5 mRem to any organ, and
  - b) During any calendar year: Less than or equal to 3 mRem to the total body and to less than or equal to 10 mRem to any organ.

#### c. Total Dose

- 1) The dose or dose commitment to any member of the public, due to releases or radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mRem to the body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mRem) over 12 consecutive months.

# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## Supplemental Information (continued)

### 2. Allowable Concentrations

#### a. Gaseous Effluents

- 1) The dose rate due to radioactive materials released in gaseous effluents from the site shall be limited to the following:
  - a) For noble gases: Less than or equal to 500 mRem/year to the total body and less than or equal to 3000 mRem/year to the skin, and
  - b) For all radioiodines and for all radioactive materials in particulate form, and radionuclides, other than noble gases, with half-lives greater than eight days: Less than or equal to 1500 mRem/year to any organ via the inhalation pathway.

#### b. Liquid Effluents

- 1) The concentration of radioactive material released from the site shall be limited to ten (10) times the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to the following:

<u>Nuclide</u>	<u>DWC (µci/ml)</u>
Kr-85m	2.00E-04
Kr-85	5.00E-04
Kr-87	4.00E-05
Kr-88	9.00E-05
Ar-41	7.00E-05
Xe-131m	7.00E-04
Xe-133m	5.00E-04
Xe-133	6.00E-04
Xe-135m	2.00E-04
Xe-135	2.00E-04

### 3. Average Energy

The average energy of fission and activation gases was calculated for the gaseous effluents released from the site. The average energy is based on the percentage of each fission gas nuclide present and its average energy per Disintegration (E in MeV/dis) for gamma and beta emissions separately.

EGAMMA	=	1.19E+00 MeV/dis
EBETA	=	4.13E-01 MeV/dis

### 4. Measurements and Approximations of Total Radioactivity

#### a. Gaseous Effluents

- 1) Containment Vent and Purge System is sampled by grab sample which is analyzed for principal gamma emitters and H-3.
- 2) Main Vent Stack is sampled by grab sample, which is analyzed for principal gamma emitters and H-3.
- 3) Standby Gas Treatment System is sampled by grab sample, which is analyzed for principal gamma emitters.

# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## Supplemental Information (continued)

- 4) All release types as listed in 1 and 2 above, at the vent stack and as listed in 3 above, at the Standby Gas Treatment System whenever there is a flow, are continuously sampled by charcoal, particulate and composite samples which are analyzed for iodines, principal gamma emitters, gross alpha, Sr-89 and Sr-90. Noble gases, gross beta and gamma are continuously monitored by noble gas monitors for the vent stack and the standby gas treatment system.

### b. Liquid Effluents

- 1) Batch waste release tanks are sampled each batch for principal gamma emitters, I-131, dissolved and entrained noble gases, H-3, gross alpha, Sr-89, Sr-90 and Fe-55.
- 2) Continuous releases are sampled continuously in proportion to the rate of flow of the effluent stream and by grab sample. Samples are analyzed for principal gamma emitters, I-131, dissolved and entrained noble gases, H-3, gross alpha, Sr-89, Sr-90 and Fe-55.

## 5. Batch Releases

### a. Gaseous

- |    |  |      |
|----|--|------|
| 1) | Number of batch releases:                | None |
| 2) | Total time period for batch releases:    | N/A  |
| 3) | Maximum time period for a batch release: | N/A  |
| 4) | Average time period for batch releases:  | N/A  |
| 5) | Minimum time period for a batch release: | N/A  |

### b. Liquid

- |    |  |          |
|----|--|----------|
| 1) | Number of batch releases:  | 3        |
| 2) | Total time period for batch releases: Min.   | 1.67E+02 |
| 3) | Maximum time period for a batch release: Min.  | 5.99E+02 |
| 4) | Average time period for batch releases: Min.   | 5.57E+02 |
| 5) | Minimum time period for a batch release: Min.  | 5.32E+02 |
| 6) | Average stream flow during periods of release of effluent into a flowing stream: gpm | 8.30E+06 |

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

Supplemental Information (continued)

6. Abnormal Releases

a. Gaseous

- |    |                          |      |
|----|--------------------------|------|
| 1) | Number of releases:      | None |
| 2) | Total activity released: | N/A  |

b. Liquid

- |    |                          |      |
|----|--------------------------|------|
| 1) | Number of releases:      | None |
| 2) | Total activity released: | N/A  |

7. Process Control Program

There were no changes to the Process Control Program during this time period.

8. Effluent Monitoring Instrumentation timeclocks and sample anomalies.

a. There were no effluent monitoring instrumentation timeclocks exceeded during this time period.

b. The cooling pond blowdown composite sampling malfunctioned for a period of three days (11/10/2000 at 10:00 to 11/13/2000 at 10:00). No compensatory sampling was performed due to the immediate restoration of the sampling system once the malfunction was identified. There was no release in progress during this period, therefore this sampling omission period did not compromise the sample integrity for the month of November.

9. Offsite Dose Calculation Manual Revisions. The following is a summary of the 2000 Revisions to the Offsite Dose Calculation Manual:

Revision 2.4, Chapter 12,  
January 2000

Table 12.4.1-1, Section h (pg. 12-34 & 12-35)

Clarify table 12.4.1-1, step h. to provide the necessary guidance for calculating the noble gas activity at times of drywell purge during steady state noble gas activity releases.

Revision 2.5, Chapter 10

March 2000

Page 10-5 Corrected typo in equations 10-3 and 10-4 of section 10.1.3.2.

Page 10-8 Removed "xMF" in equation 10-6 of section 10.2.3.2.1. There was no clear guidance as to which multiplication factor to use at this point in this equation.

Page 10-9 Added new equation 10-7 to new section 10.2.3.2.2 and defined terms of the equation. To provide the necessary guidance for determining the multiplication factor to be used for the liquid radwaste discharge tank flow rate.

Revision 2.5, Chapter 11

March 2000

Page 11-7 Changed location and nomenclature for control dairy on Table 11-1 (page 11-7). The former control dairy sold the cows and a new control dairy has been identified.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

Supplemental Information (continued)

Revision 2.5, Chapter 12

March 2000

- Page 12-5      Changed "3323" to "3489" in section 12.1.13 to support the power uprate at the station.
- Page 12-39     Corrected in-correct reference number. Reference to Sections II.3 and II.0 of Appendix I 10CFR Part 50 becomes Section II.B and II.C of Appendix I 10 CFR Part 50.
- Page 12-40     Corrected in-correct reference number. Reference to Sections II.3 and II.0 of Appendix I 10 CFR Part 50 becomes Section II.B and II.C of Appendix I 10 CFR Part 50.

An entire copy of the ODCM is submitted in accordance with Technical Specification 5.5.1 (refer to Appendix A).

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 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 %
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**A. Fission and Activation Gas Releases**

1. Total Release Activity	Ci	3.65E+02	7.76E+02	4.71E+02	3.99E+02	35%
2. Average Release Rate	uCi/sec	4.64E+01	9.88E+01	5.92E+01	5.02E+01	
3. Percent of Technical Specification Limit	%	*	*	*	*	

**B. Iodine Releases**

1. Total I-131 Activity	Ci	1.99E-03	3.59E-03	9.25E-03	8.17E-03	35%
2. Average Release Rate	uCi/sec	2.53E-04	4.56E-04	1.16E-03	1.03E-03	
3. Percent of Technical Specification Limit	%	*	*	*	*	

**C. Particulate (> 8 day half-life) Releases**

1. Gross Activity	Ci	3.23E-04	4.63E-04	7.07E-03	5.44E-04	33%
2. Average Release Rate	uCi/sec	4.11E-05	5.89E-05	8.90E-04	6.85E-05	
3. Percent of Technical Specification Limit	%	*	*	*	*	
3. Gross Alpha Activity (estimate)	Ci	4.66E-06	2.48E-06	1.09E-06	<1.00E-11	

**D. Tritium Releases**

1. Total Release Activity	Ci	8.99E+00	1.93E+01	1.68E+01	2.80E+01	21%
2. Average Release Rate	uCi/sec	1.14E+00	2.45E+00	2.12E+00	3.53E+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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 GASEOUS EFFLUENTS-ELEVATED RELEASE  
 Unit 1 and Unit 2 Continuous Mode

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
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**1. Fission and Activation Gas Releases**

Ar-41	Ci	1.03E-03	<1.00E-06	3.50E-04	5.44E-04
Kr-85	Ci	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Kr-85m	Ci	7.30E+01	1.80E+02	1.03E+02	1.08E+02
Kr-87	Ci	2.99E+01	8.60E+01	6.25E+01	4.30E+01
Kr-88	Ci	1.58E+02	4.47E+02	2.55E+02	2.10E+02
Xe-131m	Ci	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Xe-133	Ci	3.67E+01	5.17E+01	3.76E+01	3.72E+01
Xe-133m	Ci	<1.00E-06	<1.00E-06	1.27E+01	<1.00E-06
Xe-135	Ci	4.39E+01	6.57E+00	1.15E-04	3.51E-04
Xe-135m	Ci	2.31E+01	5.17E+00	<1.00E-06	<1.00E-06
Xe-138	Ci	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
TOTAL	Ci	3.65E+02	7.76E+02	4.71E+02	3.98E+02

**2. Iodine Releases**

I-131	Ci	1.99E-03	3.59E-03	9.25E-03	8.17E-03
I-132	Ci	6.32E-03	9.62E-03	2.88E-02	7.81E-03
I-133	Ci	7.96E-03	9.64E-03	2.63E-02	1.85E-02
I-134	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
I-135	Ci	1.80E-03	7.38E-03	3.35E-02	1.60E-02
TOTAL IODINE	Ci	1.81E-02	3.02E-02	9.79E-02	5.05E-02
TOTAL I-131, I-133, I-135	Ci	1.18E-02	2.06E-02	6.91E-02	4.27E-02

**3. Particulate (> 8 day half-life) Releases**

Cr-51	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Mn-54	Ci	<1.00E-11	<1.00E-11	<1.00E-11	2.60E-05
Co-57	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Fe-55 (Estimate)	Ci	<1.00E-11	<1.00E-11	6.62E-03	<1.00E-11
Co-58	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Fe-59	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Co-60	Ci	2.04E-04	2.78E-04	2.42E-04	2.19E-04
Zn-65	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Sr-89 (Estimate)	Ci	1.20E-04	1.86E-04	2.15E-04	1.73E-04
Sr-90 (Estimate)	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Zr-95	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Mo-99	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Ru-103	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Sn-117m	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Cs-134	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Cs-137	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Ba/La-140	Ci	<1.00E-11	<1.00E-11	<1.00E-11	4.55E-05
Ce-141	Ci	<1.00E-11	<1.00E-11	<1.00E-11	<1.00E-11
Ce-144	Ci	<1.00E-11	<1.00E-11	<1.00E-11	8.03E-05
TOTAL PARTICULATES	Ci	3.24E-04	4.64E-04	7.08E-03	5.44E-04

**4. Tritium Releases**

1. Total Release Activity	Ci	8.99E+00	1.93E+01	1.68E+01	2.80E+01
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"<" indicates activity of sample is less than LLD given in uCi/ml

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 1  
 SUMMATION OF ALL LIQUID RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Estimated Total Error %
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**A. Fission and Activation Products**

1. Total Activity Released	Ci	<LLD	<LLD	<LLD	5.08E-03	10%
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	1.19E-01	12%
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	1.88E-06	
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	<1.00E-07	<1.00E-07	<1.00E-07	<1.00E-07	N/A
2. Average Concentration Released	uCi/ml	<1.00E-07	<1.00E-07	<1.00E-07	<1.00E-07	
3. Percent of Applicable Limit	%	*	*	*	*	

<b>E. Volume of Liquid Waste to Discharge</b>	liters	0.00E+00	0.00E+00	0.00E+00	8.63E+04	2%
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<b>F. Volume of Dilution Water</b>	liters	0.00E+00	0.00E+00	0.00E+00	6.32E+07	5%
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"\*" 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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 1  
 BATCH MODE

Nuclides From Batch Releases	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
H-3	Ci				1.19E-01
Cr-51	Ci				8.40E-04
Mn-54	Ci				8.60E-04
Fe-55 (Estimate)	Ci				5.04E-04
Co-58	Ci				5.88E-05
Fe-59	Ci				3.63E-04
Co-60	Ci				1.26E-03
Zn-65	Ci				3.24E-04
Sr-89 (Estimate)	Ci				1.20E-07
Sr-90 (Estimate)	Ci				1.03E-07
Nb-95	Ci				1.12E-05
Zr-95	Ci				1.08E-05
Mo-99	Ci				<5.00E-07
Tc-99m	Ci				<5.00E-07
Ag-110m	Ci				1.17E-05
Sb-122	Ci				3.91E-05
Sb-124	Ci				1.00E-05
I-131	Ci				<1.00E-06
Cs-134	Ci				2.14E-04
Cs-137	Ci				5.46E-04
Ba\La-140	Ci				4.94E-06
Ce-141	Ci				<5.00E-07
Ce-144	Ci				1.80E-05
W-187	Ci				<5.00E-07
TOTAL	Ci	None	None	None	1.24E-01

Xe-131m	Ci				<1.00E-05
Xe-133	Ci				<1.00E-05
Xe-133m	Ci				<1.00E-05
Xe-135	Ci				<1.00E-05
Xe-135m	Ci				<1.00E-05
TOTAL	Ci	None	None	None	<LLD

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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 1  
 CONTINUOUS MODE

Nuclides From Batch Releases	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
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H-3	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Cr-51	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Mn-54	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Fe-55 (Estimate)	Ci	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Co-58	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Fe-59	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Co-60	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Zn-65	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sr-89 (Estimate)	Ci	<5.00E-08	<5.00E-08	<5.00E-08	<5.00E-08
Sr-90 (Estimate)	Ci	<5.00E-08	<5.00E-08	<5.00E-08	<5.00E-08
Nb-95	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Zr-95	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Mo-99	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Tc-99m	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ag-110m	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sb-122	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sb-124	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
I-131	Ci	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Cs-134	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Cs-137	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ba\La-140	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ce-141	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ce-144	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
W-187	Ci	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
TOTAL	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05

Xe-131m	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-133	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-133m	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-135	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-135m	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
TOTAL	Ci	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05

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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 2  
 SUMMATION OF ALL LIQUID RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Estimated Total Error %
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**A. Fission and Activation Products**

1. Total Activity Released	Ci	<LLD	<LLD	<LLD	5.08E-03	10%
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	1.19E-01	12%
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	1.88E-06	
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	<1.00E-07	<1.00E-07	<1.00E-07	<1.00E-07	N/A
2. Average Concentration Released	uCi/ml	<1.00E-07	<1.00E-07	<1.00E-07	<1.00E-07	
3. Percent of Applicable Limit	%	*	*	*	*	

<b>E. Volume of Liquid Waste to Discharge</b>	liters	0.00E+00	0.00E+00	0.00E+00	8.63E+04	2%
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<b>F. Volume of Dilution Water</b>	liters	0.00E+00	0.00E+00	0.00E+00	6.32E+07	5%
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"\*" 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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 2  
 BATCH MODE

Nuclides From Batch Releases	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
H-3	Ci				1.19E-01
Cr-51	Ci				8.40E-04
Mn-54	Ci				8.60E-04
Fe-55 (Estimate)	Ci				5.04E-04
Co-58	Ci				5.88E-05
Fe-59	Ci				3.63E-04
Co-60	Ci				1.26E-03
Zn-65	Ci				3.24E-04
Sr-89 (Estimate)	Ci				1.20E-07
Sr-90 (Estimate)	Ci				1.03E-07
Nb-95	Ci				1.12E-05
Zr-95	Ci				1.08E-05
Mo-99	Ci				<5.00E-07
Tc-99m	Ci				<5.00E-07
Ag-110m	Ci				1.17E-05
Sb-122	Ci				3.91E-05
Sb-124	Ci				1.00E-05
I-131	Ci				<1.00E-06
Cs-134	Ci				2.14E-04
Cs-137	Ci				5.46E-04
Ba\La-140	Ci				4.94E-06
Ce-141	Ci				<5.00E-07
Ce-144	Ci				1.80E-05
W-187	Ci				<5.00E-07
<b>TOTAL</b>	Ci	None	None	None	1.24E-01

Xe-131m	Ci				<1.00E-05
Xe-133	Ci				<1.00E-05
Xe-133m	Ci				<1.00E-05
Xe-135	Ci				<1.00E-05
Xe-135m	Ci				<1.00E-05
<b>TOTAL</b>	Ci	None	None	None	<LLD

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

LASALLE COUNTY NUCLEAR POWER STATION  
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 LIQUID RELEASES  
 UNIT 2  
 CONTINUOUS MODE

Nuclides From Batch Releases	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
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H-3	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Cr-51	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Mn-54	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Fe-55 (Estimate)	C!	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Co-58	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Fe-59	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Co-60	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Zn-65	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sr-89 (Estimate)	C!	<5.00E-08	<5.00E-08	<5.00E-08	<5.00E-08
Sr-90 (Estimate)	C!	<5.00E-08	<5.00E-08	<5.00E-08	<5.00E-08
Nb-95	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Zr-95	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Mo-99	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Tc-99m	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ag-110m	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sb-122	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Sb-124	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
I-131	C!	<1.00E-06	<1.00E-06	<1.00E-06	<1.00E-06
Cs-134	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Cs-137	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
BaLa-140	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ce-141	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
Ce-144	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
W-187	C!	<5.00E-07	<5.00E-07	<5.00E-07	<5.00E-07
TOTAL	C!	<LLD	<LLD	<LLD	<LLD

Xe-131m	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-133	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-133m	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-135	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
Xe-135m	C!	<1.00E-05	<1.00E-05	<1.00E-05	<1.00E-05
TOTAL	C!	<LLD	<LLD	<LLD	<LLD

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

# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
FIRST QUARTER

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1. Spent resins, filter sludges,  
evaporator bottoms, etc.

a.	Quantity shipped cu.m.		7.28E+01
b.	Total activity	Ci	6.62E+02
c.	Major nuclides (estimate %)		
	Mn-54	%	1.41
	Fe-55	%	78.64
	Ni-63	%	0.29
	Co-60	%	19.45
d.	Container type		LSA (12) Type B (2)
e.	Container volume cu.m.		4.84E+00 3.41E+00 5.83E+00
f.	Solidification agent		None

2. Dry compressible waste,  
contaminated equipment, etc.

a.	Quantity shipped cu.m.		1.86E+02
b.	Total activity	Ci	1.15E+01
c.	Major nuclides (estimate %)		
	Fe-59	%	5.21
	Mn-54	%	10.37
	Fe-55	%	65.14
	Co-60	%	16.36
d.	Container type		LSA
e.	Container volume cu.m.		4.84E+00 3.62E+01 7.25E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
FIRST QUARTER

3.	Other	
a.	Quantity shipped cu.m.	0.00E+00
b.	Total activity Ci	0.00E+00
c.	Major nuclides (estimate %)	N/A
d.	Container type	N/A
e.	Container volume cu.m.	N/A

4.	Irradiated Components	
a.	Quantity shipped cu.m	0.00E+00
b.	Total activity Ci	0.00E+00
c.	Major nuclides (estimate %)	N/A
d.	Number of shipments	0
e.	Mode of Transportation	N/A
f.	Destination	N/A

5. Solid Waste Disposition

	<u>Number of Shipments</u>	<u>Transportation Mode</u>	<u>Destination</u>
	6	Truck	CNSI, Barnwell, SC
	8	Truck	ATG, Oak Ridge, TN
	1	Truck	ATG, Richland, WA
	1	Truck	GTS, Oak Ridge, TN
	2	Truck	AERC, Oak Ridge, TN
<b>TOTAL THIS QUARTER</b>	<b>18</b>		

Estimated total error % for spent resins, filter sludges, evaporator bottoms, etc. (Jan-Dec)	13%
Estimated total error % for dry compressible waste, contaminated equipment, etc. (Jan-Dec)	15%
Estimated total error % for irradiated components (Jan-Dec)	15%

B. IRRADIATED FUEL SHIPMENTS

None

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
 SECOND QUARTER

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1. Spent resins, filter sludges,  
 evaporator bottoms, etc.

a.	Quantity shipped	cu.m.		1.11E+02
b.	Total activity	Ci		3.76E+02
c.	Major nuclides (estimate %)			
		N-63	%	0.59
		Fe-55	%	78.90
		Zn-65	%	20.17
		Co-60	%	0.26
d.	Container type			LSA (17) Type B (1)
e.	Container volume	cu.m.		5.83E+00 4.84E+00 3.41E+00
f.	Solidification agent			None

2. Dry compressible waste,  
 contaminated equipment, etc.

a.	Quantity shipped	cu.m.		1.45E+02
b.	Total activity	Ci		4.73E-02
c.	Major nuclides (estimate %)			
		Fe-59	%	2.50
		Mn-54	%	8.79
		Fe-55	%	68.10
		Co-60	%	17.45
d.	Container type			LSA (2)
e.	Container volume	cu.m.		7.25E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
SECOND QUARTER

3. Other

a.	Quantity shipped cu.m.	0.00E+00
b.	Total activity Ci	0.00E+00
c.	Major nuclides (estimate %)	N/A
d.	Container type	N/A
e.	Container volume cu.m.	N/A

4. Irradiated Components

a.	Quantity shipped cu.m	3.27E+00
b.	Total activity Ci	4.34E+04
c.	Major nuclides (estimate %)	
	Mn-54	% 1.13
	Fe-55	% 44.16
	Co-60	% 51.13
	Ni-63	% 3.63
d.	Number of shipments	2
e.	Mode of Transportation	Truck
f.	Destination	Barnwell

5. Solid Waste Disposition

	<u>Number of Shipments</u>	<u>Transportation Mode</u>	<u>Destination</u>
	7	Truck	CNSI, Barnwell, SC
	2	Truck	ATG, Oak Ridge, TN
	11	Truck	ATG, Richland, WA
	0	Truck	GTS, Oak Ridge, TN
	2	Truck	AERC, Oak Ridge, TN
<b>TOTAL THIS QUARTER</b>	<b>22</b>		

Estimated total error % for spent resins, filter sludges, evaporator bottoms, etc. (Jan-Dec)	13%
Estimated total error % for dry compressible waste, contaminated equipment, etc. (Jan-Dec)	15%
Estimated total error % for irradiated components (Jan-Dec)	15%

B. IRRADIATED FUEL SHIPMENTS

None

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
 THIRD QUARTER

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1. Spent resins, filter sludges,  
 evaporator bottoms, etc.

a.	Quantity shipped cu.m.		3.40E+01
b.	Total activity	Ci	2.23E+01
c.	Major nuclides (estimate %)		
	Mn-54	%	9.32
	Fe-55	%	23.79
	Cs-137	%	2.68
	Co-60	%	58.94
d.	Container type		LSA (4)
e.	Container volume cu.m.		5.83E+00
f.	Solidification agent		None

2. Dry compressible waste,  
 contaminated equipment, etc.

a.	Quantity shipped cu.m.		2.66E+02
b.	Total activity	Ci	1.45E+01
c.	Major nuclides (estimate %)		
	Ni-63	%	0.26
	Mn-54	%	1.59
	Fe-55	%	77.39
	Co-60	%	19.85
d.	Container type		LSA (8) LQ (1)
e.	Container volume cu.m.		3.62E+01 7.25E+01 2.38E+00 4.84E+00

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
THIRD QUARTER

3. Other
- |    |                             |          |
|----|-----------------------------|----------|
| a. | Quantity shipped cu.m.      | 0.00E+00 |
| b. | Total activity Ci           | 0.00E+00 |
| c. | Major nuclides (estimate %) | N/A      |
| d. | Container type              | N/A      |
| e. | Container volume cu.m.      | N/A      |

4. Irradiated Components
- |    |                        |     |
|----|------------------------|-----|
| a. | Number of shipments    | 0   |
| b. | Mode of Transportation | N/A |
| c. | Destination            | N/A |

5. Solid Waste Disposition

	<u>Number of Shipments</u>	<u>Transportation Mode</u>	<u>Destination</u>
	2	Truck	CNSI, Barnwell, SC
	0	Truck	ATG, Oak Ridge, TN
	6	Truck	ATG, Richland, WA
	1	Truck	GTS, Oak Ridge, TN
	2	Truck	AERC, Oak Ridge, TN
	2	Truck	NSSF, Barnwell, SC
<b>TOTAL THIS QUARTER</b>	<b>13</b>		

- |  |     |
|--|-----|
| Estimated total error % for spent resins, filter sludges, evaporator bottoms, etc. (Jan-Dec) | 13% |
| Estimated total error % for dry compressible waste, contaminated equipment, etc. (Jan-Dec)   | 15% |
| Estimated total error % for irradiated components (Jan-Dec)                                  | 15% |

B. IRRADIATED FUEL SHIPMENTS

None

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
FOURTH QUARTER

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1. Spent resins, filter sludges,  
evaporator bottoms, etc.

a.	Quantity shipped	cu.m.	1.08E+02
b.	Total activity	Ci	7.54E+02
c.	Major nuclides (estimate %)		
	Mn-54	%	0.78
	Fe-55	%	76.56
	Cs-137	%	1.25
	Co-60	%	20.29
d.	Container type		LSA (15) Type B (3)
e.	Container volume cu.m.		3.41E+00 5.83E+00 2.36E+00 4.84E+00
f.	Solidification agent		None

2. Dry compressible waste,  
contaminated equipment, etc.

a.	Quantity shipped	cu.m.	5.85E+02
b.	Total activity	Ci	3.14E+00
c.	Major nuclides (estimate %)		
	Fe-59	%	1.89
	Mn-54	%	8.71
	Fe-55	%	69.20
	Co-60	%	17.90
d.	Container type		LSA (10)
e.	Container volume cu.m.		3.62E+01 7.25E+01 4.84E+00

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS  
FOURTH QUARTER

3. Other (Oil for incineration)

a.	Quantity shipped cu.m.	0.00E+00
b.	Total activity Ci	0.00E+00
c.	Major nuclides (estimate %)	N/A
d.	Container type	N/A
e.	Container volume cu.m.	N/A

4. Irradiated Components

a.	Number of shipments	0
b.	Mode of Transportation	N/A
c.	Destination	N/A

5. Solid Waste Disposition

	<u>Number of Shipments</u>	<u>Transportation Mode</u>	<u>Destination</u>
	15	Truck	CNSI, Barnwell, SC
	0	Truck	ATG, Oak Ridge, TN
	4	Truck	ATG, Richland, WA
	2	Truck	GTS, Oak Ridge, TN
	6	Truck	AERC, Oak Ridge, TN
	1	Truck	CNCF, Barnwell, SC
<b>TOTAL THIS QUARTER</b>	<b>28</b>		

Estimated total error % for spent resins, filter sludges, evaporator bottoms, etc. (Jan-Dec) 13%

Estimated total error % for dry compressible waste, contaminated equipment, etc. (Jan-Dec) 15%

Estimated total error % for other irradiated components (Jan-Dec) 15%

B. IRRADIATED FUEL SHIPMENTS

None

# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## RADIOLOGICAL IMPACT ON MAN MAXIMUM DOSES RESULTING FROM RELEASES AND COMPLIANCE STATUS

\*\*\*\*\*  
\* DELIVER TO HEALTH PHYSICS \*  
\*\*\*\*\*

AIRBORNE Effluents- 10CFR50 Listing

09-apr-2001 12:47:25

STATION: LASALLE STATION  
UNIT: 1  
PERIOD: 01/01/00 12/31/00  
NAME: ODCMLAS  
REPORT: ANNUAL  
MODE: ACTUAL

LASALLE STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	7.53E-03 (WSW )	2.05E-02 (WSW )	1.18E-02 (WSW )	9.70E-03 (WSW )	4.96E-02 (WSW )
BETA AIR (MRAD)	2.61E-04 (ESE )	6.34E-04 (ESE )	3.98E-04 (ESE )	3.17E-04 (ESE )	1.61E-03 (ESE )
TOT. BODY (MREM)	5.70E-03 (WSW )	1.55E-02 (WSW )	8.96E-03 (WSW )	7.33E-03 (WSW )	3.75E-02 (WSW )
SKIN (MREM)	6.01E-03 (WSW )	1.63E-02 (WSW )	9.45E-03 (WSW )	7.73E-03 (WSW )	3.95E-02 (WSW )
ORGAN (MREM)	9.45E-04 (ESE )	8.83E-03 (ESE )	2.42E-02 (ESE )	1.01E-02 (ESE )	4.41E-02 (ESE )

THYROID THYROID THYROID THYROID THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
 INFANT RECEPTOR

----- % 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
GAMMA AIR (MRAD)	5.0	0.15	0.41	0.24	0.19	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.01	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.23	0.62	0.36	0.29	5.0	0.75
SKIN (MREM)	7.5	0.08	0.22	0.13	0.10	15.0	0.26
ORGAN (MREM)	7.5	0.01	0.12	0.32	0.13	15.0	0.29

THYROID THYROID THYROID THYROID THYROID

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

LASALLE STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
CHILD RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	7.53E-03 (WSW )	2.05E-02 (WSW )	1.18E-02 (WSW )	9.70E-03 (WSW )	4.96E-02 (WSW )
BETA AIR (MRAD)	2.61E-04 (ESE )	6.34E-04 (ESE )	3.98E-04 (ESE )	3.17E-04 (ESE )	1.61E-03 (ESE )
TOT. BODY (MREM)	5.70E-03 (WSW )	1.55E-02 (WSW )	8.96E-03 (WSW )	7.33E-03 (WSW )	3.75E-02 (WSW )
SKIN (MREM)	6.01E-03 (WSW )	1.63E-02 (WSW )	9.45E-03 (WSW )	7.73E-03 (WSW )	3.95E-02 (WSW )
ORGAN (MREM)	8.07E-04 (NNE )	1.45E-02 (NNE )	3.07E-02 (NNE )	1.45E-02 (NNE )	6.05E-02 (NNE )

THYROID THYROID THYROID THYROID THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
CHILD RECEPTOR

----- % 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
GAMMA AIR (MRAD)	5.0	0.15	0.41	0.24	0.19	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.01	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.23	0.62	0.36	0.29	5.0	0.75
SKIN (MREM)	7.5	0.08	0.22	0.13	0.10	15.0	0.26
ORGAN (MREM)	7.5	0.01	0.19	0.41	0.19	15.0	0.40

THYROID THYROID THYROID THYROID THYROID

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

LASALLE STATION UNIT ONE

ACTUAL 2000

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
TEENAGER RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	7.53E-03 (WSW )	2.05E-02 (WSW )	1.18E-02 (WSW )	9.70E-03 (WSW )	4.96E-02 (WSW )
BETA AIR (MRAD)	2.61E-04 (ESE )	6.34E-04 (ESE )	3.98E-04 (ESE )	3.17E-04 (ESE )	1.61E-03 (ESE )
TOT. BODY (MREM)	5.70E-03 (WSW )	1.55E-02 (WSW )	8.96E-03 (WSW )	7.33E-03 (WSW )	3.75E-02 (WSW )
SKIN (MREM)	6.01E-03 (WSW )	1.63E-02 (WSW )	9.45E-03 (WSW )	7.73E-03 (WSW )	3.95E-02 (WSW )
ORGAN (MREM)	6.14E-04 (NNE )	9.27E-03 (NNE )	1.91E-02 (NNE )	9.27E-03 (NNE )	3.82E-02 (NNE )

THYROID THYROID THYROID THYROID THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
TEENAGER RECEPTOR

----- % 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
GAMMA AIR (MRAD)	5.0	0.15	0.41	0.24	0.19	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.01	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.23	0.62	0.36	0.29	5.0	0.75
SKIN (MREM)	7.5	0.08	0.22	0.13	0.10	15.0	0.26
ORGAN (MREM)	7.5	0.01	0.12	0.25	0.12	15.0	0.25

THYROID THYROID THYROID THYROID THYROID

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

LASALLE STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	7.53E-03 (WSW )	2.05E-02 (WSW )	1.18E-02 (WSW )	9.70E-03 (WSW )	4.96E-02 (WSW )
BETA AIR (MRAD)	2.61E-04 (ESE )	6.34E-04 (ESE )	3.98E-04 (ESE )	3.17E-04 (ESE )	1.61E-03 (ESE )
TOT. BODY (MREM)	5.70E-03 (WSW )	1.55E-02 (WSW )	8.96E-03 (WSW )	7.33E-03 (WSW )	3.75E-02 (WSW )
SKIN (MREM)	6.01E-03 (WSW )	1.63E-02 (WSW )	9.45E-03 (WSW )	7.73E-03 (WSW )	3.95E-02 (WSW )
ORGAN (MREM)	6.77E-04 (NNE )	9.11E-03 (NNE )	1.92E-02 (NNE )	9.27E-03 (NNE )	3.83E-02 (NNE )

THYROID THYROID THYROID THYROID THYROID  
 THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 10CFR 50 APP. I  
 ADULT RECEPTOR

----- % 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
GAMMA AIR (MRAD)	5.0	0.15	0.41	0.24	0.19	10.0	0.50
BETA AIR (MRAD)	10.0	0.00	0.01	0.00	0.00	20.0	0.01
TOT. BODY (MREM)	2.5	0.23	0.62	0.36	0.29	5.0	0.75
SKIN (MREM)	7.5	0.08	0.22	0.13	0.10	15.0	0.26
ORGAN (MREM)	7.5	0.01	0.12	0.26	0.12	15.0	0.26

THYROID THYROID THYROID THYROID THYROID

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

\*\*\*\*\*  
\* DELIVER TO HEALTH PHYSICS \*  
\*\*\*\*\*

AQUATIC Effluents- 10CFR50 Listing

09-apr-2001 12:49:04

STATION: LASALLE STATION  
UNIT: 1  
PERIOD: 01/01/00 12/31/00  
NAME: ODCMLAS  
REPORT: ANNUAL  
MODE: ACTUAL

LASALLE STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	2.58E-06	2.58E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	1.18E-05	1.18E-05
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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
					LIVER		LIVER

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

LASALLE STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	2.58E-06	2.58E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	1.18E-05	1.18E-05
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	6.26E-05	6.26E-05
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.20E-04	3.20E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.01	10.0	0.00
					LIVER		LIVER

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.7 SEPTEMBER 1995  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

LASALLE STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	3.09E-06	3.09E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	9.57E-06	9.57E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	1.38E-04	1.38E-04
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.53E-04	3.53E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.01	3.0	0.00
CRIT. ORGAN (MREM)	5.0	0.00	0.00	0.00	0.01	10.0	0.00
					LIVER		LIVER

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

LASALLE STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	2.26E-06	2.26E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	4.74E-06	4.74E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT ONE

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	2.42E-04	2.42E-04
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.48E-04	3.48E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.02	3.0	0.01
CRIT. ORGAN (MREM)	5.0	0.00	0.00	0.00	0.01	10.0	0.00
					LIVER		LIVER

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.7 SEPTEMBER 1995  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

LASALLE STATION UNIT ONE

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	3.81E-06	3.81E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	5.17E-06	5.17E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000

LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

\*\*\*\*\*  
\* DELIVER TO HEALTH PHYSICS \*  
\*\*\*\*\*

AQUATIC Effluents- 10CFR50 Listing

09-apr-2001 12:50:33

STATION: LASALLE STATION  
UNIT: 2  
PERIOD: 01/01/00 12/31/00  
NAME: ODCMLAS  
REPORT: ANNUAL  
MODE: ACTUAL

LASALLE STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	2.58E-06	2.58E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	1.18E-05	1.18E-05
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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
					LIVER		LIVER

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.7 SEPTEMBER 1995  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

LASALLE STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	2.58E-06	2.58E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	1.18E-05	1.18E-05
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	6.26E-05	6.26E-05
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.20E-04	3.20E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.01	10.0	0.00
					LIVER		LIVER

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

LASALLE STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	3.09E-06	3.09E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	9.57E-06	9.57E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000

LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT TWO

ACTUAL 2000

MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	1.38E-04	1.38E-04
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.53E-04	3.53E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.01	3.0	0.00
CRIT. ORGAN (MREM)	5.0	0.00	0.00	0.00	0.01	10.0	0.00
					LIVER		LIVER

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.7 SEPTEMBER 1995  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

LASALLE STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	2.26E-06	2.26E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	4.74E-06	4.74E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

LASALLE STATION UNIT TWO

ACTUAL 2000  
 MAXIMUM DOSES (MREM) RESULTING FROM AQUATIC EFFLUENTS  
 PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01  
 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	2.42E-04	2.42E-04
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	3.48E-04	3.48E-04
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

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	0.02	3.0	0.01
CRIT. ORGAN (MREM)	5.0	0.00	0.00	0.00	0.01	10.0	0.00
					LIVER		LIVER

RESULTS BASED UPON:

ODCM ANNEX REVISION 1.7 SEPTEMBER 1995  
 ODCM SOFTWARE VERSION 1.1 January 1995  
 ODCM DATABASE VERSION 1.1 January 1995

LASALLE STATION UNIT TWO

2000 ANNUAL REPORT

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM \*

PERIOD OF RELEASE - 01/01/00 TO 12/31/00 CALCULATED 04/09/01

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	3.81E-06	3.81E-06
INTERNAL ORGAN	0.00E+00	0.00E+00	0.00E+00	5.17E-06	5.17E-06
				LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 2000

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 MREM	0.000
INTERNAL ORGAN	4.0 MREM	0.000
		LIVER

\* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

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

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\* DELIVER TO HEALTH PHYSICS \*  
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Total Effective Dose Equivalent - 10CFR20 Listing

STATION: LASALLE STATION  
UNIT: 1  
PERIOD: 01/01/00 12/31/00  
NAME: ODCMLAS  
REPORT: ANNUAL  
MODE: ACTUAL

For ADULT dose calculations, the included pathways are:

INHALATION  
MILK  
PRODUCE  
VEGETABLES  
MEAT  
GROUND DEPOSITION  
FISH  
WATER  
SKYSHINE  
WHOLE BODY

Airborne Effluents are complete from 01/01/00 to 12/31/00  
Aquatic Effluents are complete from 12/01/00 to 12/31/00  
Skyshine entries are complete from 01/01/00 to 12/31/00

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 04/09/01

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

Total Effective Dose Equivalent, mrem/yr	<u>4.93E-01</u>
10 CFR 20.1301 (a) (1) limit	<u>mrem/yr 100.0</u>
% of limit	<u>0.49</u>

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	6.61E-02	1.41E-01	1.31E-01	1.55E-01	0.49

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

LASALLE STATION UNIT ONE

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 04/09/01

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	<u>3.75E-02</u>		
	Skyshine	<u>4.45E-01</u>		
	Ground	<u>7.05E-04</u>		
	Total	<u>4.83E-01</u>	<u>25.0</u>	<u>1.93</u>
Organ Dose (CDE)	Thyroid	<u>3.10E-02</u>	<u>75.0</u>	<u>0.04</u>
	Gonads	<u>9.41E-03</u>	<u>25.0</u>	<u>0.04</u>
	Breast	<u>9.38E-03</u>	<u>25.0</u>	<u>0.04</u>
	Lung	<u>9.38E-03</u>	<u>25.0</u>	<u>0.04</u>
	Marrow	<u>9.40E-03</u>	<u>25.0</u>	<u>0.04</u>
	Bone	<u>9.39E-03</u>	<u>25.0</u>	<u>0.04</u>
	Remainder	<u>9.49E-03</u>	<u>25.0</u>	<u>0.04</u>
	CEDE	<u>1.01E-02</u>		
TEDE	<u>4.93E-01</u>	<u>100.0</u>	<u>0.49</u>	

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

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\* DELIVER TO HEALTH PHYSICS \*  
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Total Effective Dose Equivalent - 10CFR20 Listing

STATION: LASALLE STATION  
UNIT: 2  
PERIOD: 01/01/00 12/31/00  
NAME: ODCMLAS  
REPORT: ANNUAL  
MODE: ACTUAL

For ADULT dose calculations, the included pathways are:

INHALATION  
MILK  
PRODUCE  
VEGETABLES  
MEAT  
GROUND DEPOSITION  
FISH  
WATER  
SKYSHINE  
WHOLE BODY

Airborne Effluents are complete from                    to  
Aquatic Effluents are complete from 12/01/00 to 12/31/00  
Skyshine entries are complete from 01/01/00 to 12/31/00

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 04/09/01

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

Total Effective Dose Equivalent, mrem/yr	<u>1.73E-01</u>
10 CFR 20.1301 (a)(1) limit	<u>mrem/yr 100.0</u>
% of limit	<u>0.17</u>

Compliance Summary - 10CFR20

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	% of Limit
TEDE	3.91E-02	1.14E-02	5.84E-02	6.45E-02	0.17

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

LASALLE STATION UNIT TWO

10 CFR 20 COMPLIANCE ASSESSMENT

PERIOD OF ASSESSMENT 01/01/00 TO 12/31/00

CALCULATED 04/09/01

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

		Dose (mrem)	Limit (mrem)	% of Limit
Whole Body (DDE)	Plume	<u>0.00E+00</u>		
	Skyshine	<u>1.73E-01</u>		
	Ground	<u>0.00E+00</u>		
	Total	<u>1.73E-01</u>	<u>25.0</u>	<u>0.69</u>
Organ Dose (CDE)	Thyroid	<u>1.58E-04</u>	<u>75.0</u>	<u>0.00</u>
	Gonads	<u>1.83E-04</u>	<u>25.0</u>	<u>0.00</u>
	Breast	<u>1.57E-04</u>	<u>25.0</u>	<u>0.00</u>
	Lung	<u>1.59E-04</u>	<u>25.0</u>	<u>0.00</u>
	Marrow	<u>1.73E-04</u>	<u>25.0</u>	<u>0.00</u>
	Bone	<u>1.65E-04</u>	<u>25.0</u>	<u>0.00</u>
	Remainder	<u>2.01E-04</u>	<u>25.0</u>	<u>0.00</u>
	CEDE	<u>1.79E-04</u>		
TEDE	<u>1.73E-01</u>	<u>100.0</u>	<u>0.17</u>	

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

# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## METEOROLOGICAL DATA



ComEd LASALLE STATION  
375 ft. WIND SPEED and WIND DIRECTION

January-March 2000  
375-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9 SU	.00	.10	.00	.00	.00	.14	.00	.00	.10	.05	.14	.05	.00	.00	.00	.00	.58			.58					
N	.91	.58	.53	.53	.43	.58	.39	.10	.34	.39	.87	.67	.48	1.16	1.06	1.30	10.30			10.30					
2 SS	.48	.29	.14	.24	1.01	.43	.39	.29	.67	.63	.77	.29	.53	.91	.63	.43	8.14					8.14			
4 MS	.10	.05	.00	.00	.10	.14	.14	.10	.39	.10	.24	.19	.10	.96	1.16	.43	4.19						4.19		
ES	.00	.10	.00	.00	.00	.10	.10	.00	.05	.05	.39	.05	.19	.19	.10	.00	1.30							1.30	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.10	.00	.00	.00	.00	.00	.14				.14					
N	.29	.00	.34	.91	.43	.39	.00	.39	1.35	.48	.67	.77	.53	1.93	1.35	1.01	10.83			10.83					
2 SS	.24	.00	.00	.00	.34	.24	.29	.87	1.83	2.65	1.49	1.54	1.64	2.94	.77	.58	15.41					15.41			
4 MS	.00	.00	.00	.00	.00	.05	.19	.14	1.54	1.73	1.40	.67	.58	.48	.00	.14	6.93						6.93		
ES	.00	.00	.00	.00	.00	.00	.19	.10	.43	.67	.24	.34	.14	.00	.00	2.12								2.12	
TOT	4.77	5.01	3.03	4.33	5.15	5.20	3.85	3.47	8.91	8.47	8.67	5.97	6.79	11.51	8.18	6.69	100.00	.00	.00	.87	38.85	38.08	16.56	5.63	

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	Extremely Unstable
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	Moderately Unstable
.00	.14	.00	.00	.00	.19	.00	.00	.14	.14	.19	.05	.00	.00	.00	.00	.87	Slightly Unstable
2.89	2.89	1.93	2.46	1.69	1.69	1.59	.82	2.99	1.73	2.21	2.41	2.02	4.24	3.56	3.76	38.85	Neutral
1.64	1.59	1.01	1.64	2.65	2.17	1.20	1.73	3.42	4.00	2.99	2.26	3.13	4.57	2.21	1.88	38.08	Slightly Stable
.24	.19	.10	.24	.34	.96	.96	.63	2.12	1.93	2.07	.96	1.06	1.93	1.78	1.06	16.56	Moderately Stable
.00	.19	.00	.00	.48	.19	.10	.29	.24	.67	1.20	.29	.58	.77	.63	.00	5.63	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.00	.05	.00	.10	.05	.05	.05	.10	.10	.00	.00	.00	.10	.19	.00	.14	.91	0.8 - 3.5 mph
.39	.43	.34	.67	.72	.39	.48	.29	.43	.19	.14	.34	.39	.34	.39	.39	6.31	3.6 - 7.5 mph
.77	1.54	.53	.72	.87	.91	.67	.39	.77	.72	.43	.53	.87	.91	1.35	.82	12.81	7.6 - 12.5 mph
1.59	1.88	1.16	1.16	1.20	1.78	1.16	.63	1.20	.96	1.44	.63	1.06	1.35	1.40	1.44	20.03	12.6 - 18.5 mph
1.49	1.11	.67	.77	1.54	1.40	1.01	.48	1.54	1.20	2.41	1.25	1.30	3.23	2.94	2.17	24.51	18.6 - 24.5 mph
.53	.00	.34	.91	.77	.67	.48	1.59	4.86	5.39	4.24	3.23	3.08	5.49	2.12	1.73	35.44	> 24.5 mph



ComEd LASALLE STATION  
375 ft. WIND SPEED and WIND DIRECTION

April-June 2000  
375-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES							
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.00	.00	.09		.09					
9 SU	.00	.05	.14	.00	.00	.00	.05	.18	.60	.18	.09	.00	.14	.14	.00	1.56			1.56					
N	.46	1.05	.87	1.42	.27	.05	.05	.18	.46	1.14	1.37	1.14	.41	1.05	1.19	.73	11.86			11.86				
2 SS	.23	.09	.46	.37	.14	.50	.18	.37	.69	.92	.69	.69	.23	.18	.46	.23	6.41				6.41			
4 MS	.09	.05	.09	.05	.09	.05	.00	.32	.41	.60	.37	.27	.23	.37	.41	.09	3.48						3.48	
ES	.05	.00	.00	.00	.00	.00	.27	.05	.05	.05	.05	.05	.14	.05	.05	.00	.78							.78
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
G MU	.00	.00	.00	.00	.00	.00	.05	.05	.05	.09	.00	.00	.00	.00	.00	.23		.23						
T SU	.00	.05	.00	.00	.00	.00	.05	.09	.18	.23	.05	.00	.00	.05	.00	.69			.69					
N	.60	.09	.69	.23	.09	.55	.05	.18	.50	.92	1.42	.55	.37	1.60	1.33	1.01	10.16			10.16				
2 SS	.05	.09	.14	.00	.09	.32	.14	.37	.73	2.84	2.61	.46	.37	.73	.18	.00	9.11				9.11			
4 MS	.00	.00	.05	.00	.00	.05	.14	.27	.37	.50	.82	.37	.05	.00	.00	.00	2.61						2.61	
ES	.00	.00	.00	.00	.00	.00	.09	.18	.09	.37	.18	.09	.00	.00	.00	.00	1.01							1.01
TOT	4.95	5.72	5.91	5.22	3.75	3.71	3.21	4.53	7.23	11.36	12.64	6.91	4.95	7.69	6.78	5.45	100.00	.00	.32	2.52	52.66	28.57	12.41	3.53

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	Extremely Unstable
.00	.00	.00	.00	.00	.00	.00	.05	.05	.05	.14	.00	.00	.05	.00	.00	.32	Moderately Unstable
.00	.09	.23	.00	.00	.00	.00	.14	.41	.78	.41	.14	.00	.14	.18	.00	2.52	Slightly Unstable
3.62	4.17	3.94	3.30	2.11	1.65	1.24	1.65	2.79	4.03	5.91	3.57	2.34	4.26	4.03	4.08	52.66	Neutral
.82	1.05	1.42	1.83	1.37	1.47	.92	1.42	2.38	4.40	4.12	1.88	1.37	1.83	1.24	1.05	28.57	Slightly Stable
.46	.41	.27	.09	.27	.55	.69	.96	1.28	1.51	1.51	.92	.87	1.19	1.10	.32	12.41	Moderately Stable
.05	.00	.05	.00	.00	.05	.37	.32	.32	.60	.55	.41	.37	.23	.23	.00	3.53	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.14	.05	.09	.09	.05	.00	.00	.00	.09	.05	.00	.05	.14	.09	.18	.09	1.10	0.8 - 3.5 mph
.73	.41	.87	.64	.37	.41	.55	.60	.32	.46	.69	.50	.64	.60	.50	.50	8.79	3.6 - 7.5 mph
1.14	2.01	.92	.60	1.05	1.05	.82	1.14	1.60	1.01	1.47	1.01	.69	1.05	.50	1.19	17.26	7.6 - 12.5 mph
1.47	1.79	1.60	1.83	1.60	.73	.92	.73	1.60	1.69	2.43	1.60	1.69	1.79	1.79	1.60	24.86	12.6 - 18.5 mph
.82	1.24	1.56	1.83	.50	.60	.50	.96	1.79	3.30	2.70	2.24	1.01	1.83	2.24	1.05	24.18	18.6 - 24.5 mph
.64	.23	.87	.23	.18	.92	.41	1.10	1.83	4.85	5.36	1.51	.78	2.34	1.56	1.01	23.81	> 24.5 mph

ComEd LASALLE STATION  
375 ft. WIND SPEED and WIND DIRECTION

July-September 2000  
375-33 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2201  
VALUES ARE PERCENT OCCURRENCE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES							
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.00	.00	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.05	.00	.18	.00	.00	.00	.00	.18	.00	.00	.00
3 SS	.00	.00	.00	.09	.05	.00	.09	.00	.00	.00	.00	.05	.00	.00	.00	.27	.00	.00	.00	.00	.27	.00	.00	.00
MS	.00	.00	.00	.00	.00	.00	.09	.00	.00	.09	.00	.05	.00	.00	.05	.27	.00	.00	.00	.00	.27	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.32	.41	.82	.27	.32	.50	.45	.27	.18	.18	.09	.23	.05	.23	.18	.18	4.68	.00	.00	4.68	.00	.00	.00	.00
7 SS	.23	.59	.14	.23	.45	.14	.00	.09	.05	.00	.09	.14	.05	.05	.09	2.32	.00	.00	.00	2.32	.00	.00	.00	.00
MS	.00	.05	.09	.05	.23	.05	.00	.05	.05	.00	.23	.23	.09	.00	.00	1.09	.00	.00	.00	1.09	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.09	.00	.00	.00	.09	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8 SU	.00	.05	.00	.09	.05	.05	.00	.00	.00	.14	.00	.05	.00	.00	.00	.41	.00	.00	.00	.41	.00	.00	.00	.00
N	2.00	2.00	1.09	1.36	1.36	.95	.68	.82	1.27	.73	.77	.64	.91	1.27	1.14	1.14	18.13	.00	.00	18.13	.00	.00	.00	.00
1 SS	.14	.82	.41	.95	.55	.41	.45	.18	.05	.18	.27	.23	.45	.32	.32	.32	6.04	.00	.00	6.04	.00	.00	.00	.00
2 MS	.27	.23	.09	.09	.23	.23	.09	.27	.23	.09	.23	.18	.18	.18	.23	.09	2.91	.00	.00	2.91	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.05	.14	.14	.00	.14	.09	.00	.05	.00	.59	.00	.00	.00	.59	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 MU	.00	.00	.05	.05	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.18	.00	.00	.00	.18	.00	.00	.00	.00
3 SU	.09	.05	.09	.05	.00	.36	.00	.00	.32	.14	.18	.05	.00	.09	.09	.00	1.50	.00	.00	1.50	.00	.00	.00	.00
N	1.18	1.68	2.50	2.09	.27	.55	.59	.32	.73	1.73	1.23	1.09	1.09	.32	1.04	1.00	17.40	.00	.00	17.40	.00	.00	.00	.00
1 SS	.18	.86	.64	.64	1.14	.27	.23	.27	.45	.59	.36	.45	.14	.36	.27	.18	7.04	.00	.00	7.04	.00	.00	.00	.00
8 MS	.23	.05	.09	.00	.27	.23	.32	.09	.50	.36	.18	.23	.23	.50	.27	.14	3.68	.00	.00	3.68	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.09	.14	.41	.45	.05	.00	.18	.00	.00	.00	1.32	.00	.00	.00	1.32	.00	.00	.00	.00

ComEd LASALLE STATION  
375 ft. WIND SPEED and WIND DIRECTION

July-September 2000  
375-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
EU	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.05								
1 MU	.00	.00	.00	.00	.00	.00	.00	.09	.05	.05	.00	.00	.00	.00	.00	.18	.18								
9 SU	.09	.00	.00	.05	.00	.00	.00	.18	.09	.14	.00	.00	.00	.09	.00	.64	.64								
N	.45	.27	1.14	.86	.00	.18	.27	.18	.41	.55	.14	.36	.05	.05	.36	.55	5.82			5.82					
2 SS	.32	.27	.09	.36	.59	.55	.50	.41	1.14	1.36	.55	.45	.23	.36	.09	.27	7.54				7.54				
4 MS	.14	.00	.00	.00	.05	.32	.23	.09	.73	.73	.59	.41	.18	.32	.27	.14	4.18						4.18		
ES	.00	.00	.00	.00	.00	.00	.18	.18	.27	.50	.27	.00	.00	.00	.00	.00	1.41						1.41		
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.00	.00	.00	.00	.00	.14	.14								
N	.00	.00	.00	.23	.05	.00	.09	.09	.09	.27	.27	.14	.00	.05	.00	.00	1.27				1.27				
2 SS	.14	.00	.00	.05	.05	.00	.18	.14	.23	1.36	.68	.27	.18	.23	.00	.14	3.63				3.63				
4 MS	.05	.00	.00	.00	.05	.50	.00	.18	.59	1.59	.68	.45	.05	.09	.00	.09	4.32						4.32		
ES	.00	.00	.00	.00	.00	.14	.14	.50	.77	.27	.32	.59	.00	.00	.00	.00	2.73							2.73	
TOT	5.82	7.31	7.22	7.50	5.68	5.54	4.73	4.82	8.95	10.90	7.50	6.36	4.27	4.59	4.45	4.36	100.00	.05	.36	2.68	47.48	26.85	16.45	6.13	

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	STABILITY CLASSES
.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	Extremely Unstable
.00	.00	.05	.05	.00	.00	.00	.00	.09	.09	.09	.00	.00	.00	.00	.00	.36	Moderately Unstable
.18	.09	.09	.18	.05	.41	.00	.00	.50	.27	.55	.05	.05	.09	.18	.00	2.68	Slightly Unstable
3.95	4.36	5.54	4.82	2.00	2.23	2.14	1.73	2.68	3.45	2.50	2.45	2.09	1.91	2.77	2.86	47.48	Neutral
1.00	2.54	1.27	2.32	2.82	1.36	1.45	1.09	1.91	3.50	1.86	1.50	1.18	1.32	.73	1.00	26.85	Slightly Stable
.68	.32	.27	.14	.82	1.32	.64	.77	2.09	2.77	1.77	1.50	.91	1.18	.77	.50	16.45	Moderately Stable
.00	.00	.00	.00	.00	.23	.50	1.23	1.64	.82	.73	.86	.05	.09	.00	.00	6.13	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	WIND SPEED CLASSES
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.00	.00	.00	.09	.05	.05	.14	.14	.00	.00	.09	.00	.09	.00	.05	.05	.73	0.8 - 3.5 mph
.55	1.04	1.04	.55	1.00	.68	.45	.41	.27	.18	.09	.55	.45	.41	.23	.27	8.18	3.6 - 7.5 mph
2.41	3.09	1.59	2.50	2.18	1.64	1.27	1.41	1.68	1.00	1.54	1.14	1.59	1.82	1.68	1.54	28.08	7.6 - 12.5 mph
1.68	2.64	3.36	2.82	1.68	1.50	1.27	1.09	2.45	2.91	2.00	2.00	1.45	1.27	1.68	1.32	31.12	12.6 - 18.5 mph
1.00	.55	1.23	1.27	.64	1.04	1.18	.86	2.86	3.27	1.73	1.23	.45	.73	.82	.95	19.81	18.6 - 24.5 mph
.18	.00	.00	.27	.14	.64	.41	.91	1.68	3.54	2.04	1.45	.23	.36	.00	.23	12.09	> 24.5 mph

ComEd LASALLE STATION  
375 ft. WIND SPEED and WIND DIRECTION

October-December 2000  
375-33 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2208  
VALUES ARE PERCENT OCCURRENCE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES							
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.00	.14	.14	.00	.14	.54	.00	.00	.00	.00	.54	.00	.00	.00
3 SS	.05	.09	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.23	.00	.00	.00
MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ES	.00	.05	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.14
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.23	.00	.23	.23	.18	.09	.05	.18	.27	.23	.09	.05	.27	.36	.23	.41	3.08	.00	.00	.00	.00	.00	.00	.00
7 SS	.23	.50	.14	.05	.09	.18	.05	.05	.09	.23	.09	.09	.14	.18	.18	.14	2.40	.00	.00	.00	.00	.00	.00	.00
MS	.05	.00	.05	.09	.00	.00	.00	.00	.00	.18	.23	.23	.14	.23	.09	.09	1.36	.00	.00	.00	.00	.00	.00	.00
ES	.00	.14	.05	.00	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.00	.32	.00	.00	.00	.00	.00	.00	.00	.32
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.68	.27	.54	.45	.32	.32	.91	.45	.41	.09	.45	.41	.45	.68	.91	.68	8.02	.00	.00	.00	.00	.00	.00	.00
1 SS	.23	.23	.54	.50	.63	.27	.50	.18	.05	.23	.32	.41	.41	.32	.63	.09	5.53	.00	.00	.00	.00	.00	.00	.00
2 MS	.05	.00	.00	.14	.00	.09	.09	.23	.09	.32	.14	.18	.27	.00	.09	.09	1.77	.00	.00	.00	.00	.00	.00	.00
ES	.00	.00	.09	.00	.00	.00	.05	.09	.18	.14	.05	.09	.23	.05	.00	.95	.00	.00	.00	.00	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.63	.72	1.18	.95	.32	.32	.18	.59	.23	.27	1.09	2.17	1.31	2.49	1.72	.41	14.58	.00	.00	.00	.00	.00	.00	.00
1 SS	.09	.41	.32	.27	.18	.18	.32	.50	.14	.23	.36	.95	.95	.68	.41	.23	6.20	.00	.00	.00	.00	.00	.00	.00
8 MS	.23	.00	.05	.05	.00	.09	.27	.32	.27	.27	.36	.23	.45	.36	.41	.32	3.67	.00	.00	.00	.00	.00	.00	.00
ES	.00	.05	.09	.00	.00	.00	.05	.05	.45	.41	.09	.00	.09	.32	.09	.05	1.72	.00	.00	.00	.00	.00	.00	.00



# EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2000)

## APPENDIX A OFFSITE DOSE CALCULATION MANUAL

# **LTS 1300-1 CHLORINE SURVEY IN THE VICINITY OF LASALLE COUNTY GENERATING STATION**

## **1. Executive Summary**

A survey of potential sources of liquid chlorine stored or transported within a five-mile radius of LaSalle Station was performed that updates surveys of 1975, 1986, 1988, 1991, 1994 and 1997. This survey ensures compliance with 10CFR50, Appendix A, "General Design Criteria for Nuclear Power Plants," Criterion 19, "Control Room" and Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release."

A database of potential chlorine sources was built based on facilities identified in previous surveys and updated with information from the Grundy and LaSalle County Emergency Services and Disaster Agencies (ESDA's). The database was limited to facilities located between the Marseilles and Dresden Island Locks and included facilities within and without the five-mile radius of LaSalle Station. A total of fourteen facilities in Grundy and LaSalle Counties fit the criteria and were included in this survey.

Data from seven controlling authorities and fourteen facilities was reviewed and follow-up contacts were made to confirm the information gathered. The 2000 survey identified four facilities with chlorine used and stored onsite. All four facilities reported their chlorine was stored in 150 lb. cylinders, which is the maximum size container permitted under Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release, for which no automatic protective features are in control room ventilation. One of the four chlorine sites identified is located within the five-mile radius of LaSalle Station.

The results of this survey indicate chlorine is used and stored in small quantities at facilities in the vicinity of LaSalle Station, but not transported on the Illinois River.

## **2. Introduction**

Licensing of LaSalle County Generating Station required a survey of industries and transportation routes in the site vicinity that may use, store, and/or transport hazardous chemicals. The original survey, conducted in 1975, revealed anhydrous ammonia and probably chlorine were transported by barge on the Illinois River. The information gathered was not complete enough to conclude that chlorine was not shipped in large quantities by barge on the Illinois River.

A new survey was conducted in January-February 1986 to supplement the information obtained from the 1975 chlorine survey. The information collected by the 1986 survey concluded no special chlorine protection provisions were required at LaSalle Station. In the safety evaluation supporting Amendment No. 38 to Facility Operating License No. NPF-11 and Amendment No. 20 to Facility Operating License No. NPF-18, the U.S.

Nuclear Regulatory Commission (NRC) agreed with this conclusion, but recommended a three-year update for the Illinois River chlorine survey. ComEd committed to the survey update in a letter to the NRC dated March 5, 1986. Surveys were conducted in 1988, 1991, 1994 and 1997 supporting the conclusion that chlorine is not shipped on the Illinois River in sufficient quantities to present a hazard to the LaSalle Station Control Room. In accordance with this commitment, a new survey was conducted in September-October 2000.

The following sections describe regulatory guides that form the basis of the control room habitability evaluation, results of previous surveys, the methods and results of the 2000 survey, and the conclusion regarding chlorine as a hazard. The results of the 2000 survey and previous surveys in 1988, 1991, 1994 and 1997 fully support the 1986 conclusion that no special chlorine protection measures are required at LaSalle Station.

### **3. Regulatory Guides**

Regulatory Guide 1.78, "Assumption for Evaluating the Habitability of a Nuclear Power Plant Control Room during a Postulated Hazardous Chemical Release" identifies chlorine as a hazardous chemical that requires a control room habitability analysis in the event of an accidental chlorine release from stationary or mobile sources near the station.

Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release" specifically addresses onsite accidental chlorine release. However, it can also be used in analyzing effects of an offsite chlorine release.

Regulatory Position 1 of Regulatory Guide 1.78, states chlorine stored or situated at greater distances than five miles from the control room need not be considered in evaluating habitability of the nuclear power plant control room during a postulated chlorine release. Regulatory Guide 1.78 also specifies frequency, distance, and quantity of chemicals transported or stored with respect to the control room that require a control room habitability analysis. The Regulatory Guide specifies three modes of transportation that must be considered for chlorine manufactured, stored or used by industries in the vicinity of the control room: railroads, highways, and waterways.

### **4. Earlier Surveys Of Chlorine Shipment**

The LaSalle County Final Safety Analysis Report (FSAR) Section 2.1.1 describes the location of the plant and transportation routes near the plant. FSAR Section 2.2.2 describes nearby industrial, transportation, and military facilities. All industrial facilities are located outside of a five-mile radius of the plant, therefore, chlorine used or stored at these facilities need not be considered in evaluating control room habitability. A survey of these industries was conducted in 1975 to determine the shipment of chlorine by three modes of transportation, U.S. Highway 6 and State Highway 47, the nearest highways to the station used by these industries and the Chicago Rock Island and Pacific, the nearest railroad, are all located farther than five miles from the station. Therefore, transportation of chlorine by these two modes of transportation need not be considered in the control room habitability analysis.

FSAR Section 2.2.2.4 describes river traffic on the Illinois River passing the site. Section 2.2.3.1.c concluded the only transportation route potentially carrying chlorine within five miles of the station was the Illinois River, which is located approximately 4.7 miles north of the station. However, the available data on commodities transported on the Illinois River (FSAR Table 2.204) did not differentiate barge shipments of chlorine from other chemicals. The survey found a small quantity of chlorine was used by the Illinois Nitrogen Corporation, located at river mile 248.7, approximately five miles north of the station, however, there was not sufficient information available if it was receiving chlorine supply by barge. In order to expedite the licensing process, chlorine detectors were provided in the control room HVAC system intake air ducts.

To supplement the 1975 survey and to obtain additional specific information on chlorine shipments, a survey was conducted during January-February 1986 to determine whether chlorine was, in fact, transported in barges on the Illinois River.

Information was collected from the U.S. Army Corps of Engineers, the U.S. Coast Guard, and Lockmasters for Starved Rock and Dresden Dams. None of the sources had information suggesting chlorine is transported on the Illinois River. Because none of the barge operators, barge terminals, or chemical companies reported chlorine shipments on the Illinois River and neither of the lockmasters were aware of any chlorine passing through their locks, it was concluded that chlorine was not shipped on the river in significant quantities.

## **5. Year 2000 Survey of Chlorine Shipments**

The criteria used for the 2000 survey limited sites of interest to those located between Marseilles and Dresden Island Locks and included facilities within and outside of the five-mile radius of LaSalle Station. Previous surveys were reviewed and updated from 1997, 1998 and 1999 Tier Two Reports from Grundy and LaSalle County ESDA's.

Table 1 shows results of the fourteen barge terminals, chemical companies, water treatment plants, and potential chlorine users contacted. None of the barge terminals located between the closest upstream and downstream dams handle chlorine. None of the chemical companies, water treatment plants or other potential chlorine users send or receive chlorine on the Illinois River. Four facilities were identified using small quantities of chlorine. One of those sites is located within five miles of LaSalle Station. All four facilities stated their chlorine is transported and stored in 150 lb. cylinders.

CSX operates the closest regularly traveled railroad to LaSalle Station. The railroad is located outside the five-mile radius of LaSalle Station and per the 1998 survey, no chlorine tank cars were shipped on this railroad. This survey could not confirm the transportation of chlorine on the railroad because CSX did not respond to repeated requests for information.

Table 2 shows the results of seven government agencies, public officials, and trade organizations contacted. The Chlorine Institute reported no chlorine is transported on the Illinois River, and has no knowledge of any chlorine producer or distributor located on the river. Table 3 shows the active chlorine barges in the United States and Canada, as reported by the Chlorine Institute. Lockmasters for Starved Rock, Marseilles and Dresden Island Locks are not aware of any chlorine passing through their locks. The Corps of Engineers verified that no chlorine shipments in 1997, 1998 and 1999 went past mile point 252 on the Illinois River. Mile Point 252 is located within the five-mile radius of LaSalle Station.

LaSalle Station HAZMAT Coordinator reported no chlorine used or stored on-site.

Although four facilities were identified using small amounts of chlorine, there was no indication chlorine is transported on the Illinois River, and several sources volunteered the opinion that chlorine is not transported on the river.

## **6. Conclusion of Findings**

The 2000 survey concludes chlorine is not transported in significant quantities on the Illinois River and within a five-mile radius of LaSalle Station. Small quantities of chlorine are used and stored in 150 lb. cylinders at four sites. One of the four sites identified is within the five-mile radius of LaSalle Station. Regulatory Guide 1.95 C.3 states that only single container quantities exceeding 150 lb. need to be considered for control room ventilation requiring automatic chlorine protection features. Therefore, the 2000 survey concludes that chlorine detectors are not required for the LaSalle County Station.

**Table 1. Barge Terminals Chemical Companies, Water Treatment Plants, and Other Potential Chlorine Users in Towns on the Illinois River in the Vicinity of LaSalle Station**

<b>Company</b>	<b>County</b>	<b>Address</b>	<b>Phone</b>	<b>Distance to LaSalle Station</b>	<b>Chlorine Identified?</b>
Cargill Inc.	LaSalle	S. Main Street Seneca POC: Bob Matlock	(815) 357-8741	<5 miles	None
Royster-Clark	LaSalle	2100 E. Broadway Marseilles POC: John Moyer	(815) 795-4151	>5 miles	None
Morris Sewage Treatment Plant	Grundy	N. River Road Morris POC: Junior King	(815) 942-0643	>5 miles	Yes 10 – 150 lb cylinders
PCS Phosphates	LaSalle	P.O. Box 88 Marseilles POC: Don Jackson	(815) 795-5111	>5 miles	None
Reichhold Chemicals, Inc.	Grundy	Dupont Road Seneca POC: Bob Storm	(815) 357-6726	>5 miles	None
Shipyards Terminal and Industrial Park	LaSalle	P.O. Box 380 Seneca POC: George Lamb	(815) 357-6721	<5 miles	None
Wastewater Treatment Facility	LaSalle	#2 Spicer Lane Marseilles POC: Brian Miller	(815) 795-2150	>5 miles	Yes 5 – 150 lb cylinders
Village of Seneca Wastewater Treatment Facility	LaSalle	301 W. Union Seneca POC: Jerry Lowe	(815) 357-8406	<5 miles	Yes 4 – 150 lb cylinders

**Table 1 (continued). Barge Terminals Chemical Companies, Water Treatment Plants, and Other Potential Chlorine Users in Towns on the Illinois River in the Vicinity of LaSalle Station**

<b>Company</b>	<b>County</b>	<b>Address</b>	<b>Phone</b>	<b>Distance to LaSalle Station</b>	<b>Chlorine Identified?</b>
ADM/Growmark	LaSalle	Towpath Road Ottawa POC: Gary Boyd	(815) 433-3635	>5 miles	None
Field Container Company	LaSalle	240 Main Street Marseilles POC: Don Frederick	(815) 795-2111	>5 miles	None
CF Industries, Inc	Grundy	737 E. DuPont Road Seneca POC: Ron Witalka	(815) 357-8811	>5 miles	None
Evenson Energies LLC	Grundy	2019 Dunn Road Morris POC: Ginger Younker	(815) 942-5800	>5 miles	None
Explosive Energies, Inc	Grundy	7700 DuPont Road Morris POC: Ginger Younker	(815) 942-5802	>5 miles	None
LaRoche Industries, Inc.	Grundy	7700 W Dupont Road Morris POC: Tony Massa	(815) 357-8711	>5 miles	Yes 6 – 150 lb cylinders

**Table 2. Government Agencies, Public Officials and Trade Organizations**

<b>Organization</b>	<b>Information that Chlorine is Transported on the Illinois River</b>
Chlorine Institute, Washington D.C.	None
Illinois Department of Transportation, Hazardous Materials Division, Chicago IL	None
Lockmaster, Dresden Island, Illinois	None
Lockmaster, Starved Rock Lock and Dam, Utica IL	None
U.S. Army Corps of Engineers, Planning Division, Rock Island, IL	None
Emergency Services and Disaster Agency of Grundy County, Morris IL	Potential
Emergency Services and Disaster Agency of LaSalle County, Ottawa IL	Potential

**Table 3. Active Chlorine Barges in the United States and Canada**

<b>Owner</b>	<b>Reporting Marks</b>	<b>Barge Numbers</b>	<b>Nominal Cl<sub>2</sub> Capacity (Tons)</b>
CXY Chemicals (1)	Hyak King* (B)		1350 (15 x 90)
Olin (7)	SBI OMCC OL	601 – 603 651 & 652 654 & 655	1110 (6 x 185) 1100 (4 x 275) 1100 (4 x 275)
Elf Atochem (2)	Tyee* (A) Totem* (A)		1200 (4 x 300) 1200 (4 x 300)
PPG Industries (12)	PPG  R. D. Osucha	400 – 407 409 410-411	1100 (4 x 275) 1200 (4 x 300) 1100 (4 x 275) 1200 (4 x 300)

Vessels marked with an asterisk (\*) are oceangoing barges that operate in ocean and sounds on the Pacific Northwest. All other barges operate on inland waterways.

Vessels marked with (A) or (B) are oceangoing barges with multi-cargo configurations:

- (A) Chlorine in deck tanks  
Caustic and/or sodium chlorate in wing tanks
- (B) Caustic soda in hull tanks  
Chlorine in 90 ton tank cars on deck

## **7. References**

Chlorine Institute, Washington, D.C., Mr Jack Ahearn, Personal Conversation with ComEd on 09/14/00, (202) 872-4723

Illinois Department of Transportation, Hazardous Materials Division, Chicago, Illinois, (217) 785-3064, Mr. Terry Moore, Personal Conversation with ComEd on 09/05/00.

Lockmaster, Dresden Island Lock and Dam, Dresden, Illinois, (815) 942-0840 x 6732, Mr. Jeff Blazekovich, Personal Conversation with ComEd on 09/08/00.

Lockmaster, Marseilles Lock and Dam, Marseilles, Illinois, (815) 795-2593, Mr. Rick Vespar, Personal Conversation with ComEd on 10/10/00.

Lockmaster, Starved Rock Lock and Dam, Utica, Illinois, (815) 667-4114, Mr. Mark Witalka, Personal Conversation with ComEd on 09/05/00.

U.S. Army Corps of Engineers, Planning Division, Rock Island, Illinois, (309) 794-5396, Mr. Jack Carr, Personal Conversation with ComEd on 09/05/00.

Grundy County Emergency Services and Disaster Agency, (815) 941-3212, Mr. Jim Lutz, Meeting with ComEd on 09/14/00.

LaSalle County Emergency Services and Disaster Agency, (815) 433-5622, Mr. Emerson Tidks, Meeting with ComEd on 09/17/00.

Cargill Inc., Seneca, Illinois, (815) 357-8741, Mr. Bob Matlock, Personal Conversation with ComEd on 10/03/00.

Royster-Clark, Marseilles, Illinois, (815) 795-4151, Mr. John Moyer, Personal Conversation with ComEd on 10/03/00.

Morris Sewage Treatment Plant, Morris, Illinois, (815) 942-0643, Mr. Junior King, Personal Conversation with ComEd on 10/03/00.

PCS Phosphates, Marseilles, Illinois, (815) 795-5111, Mr. Don Jackson, Personal Conversation with ComEd on 10/03/00.

Reichold Chemicals, Inc., Seneca, Illinois, (815) 357-6726, Mr. Bob Storm, Personal Conversation with ComEd on 10/03/00.

Shipyard Terminal and Industrial Park, Seneca, Illinois, (815) 357-6721, Mr. George Lamb, Personal Conversation with ComEd on 10/03/00.

Wastewater Treatment Facility, Marseilles, Illinois, (815) 795-2150, Mr. Brian Miller, Personal Conversation with ComEd on 10/03/00.

Village of Seneca Wastewater Treatment Facility, Seneca, Illinois, (815) 357-8406, Mr. Jerry Lowe, Personal Conversation with ComEd on 10/03/00.

ADM/Growmark, Ottawa, Illinois, (815) 433-3635, Mr. Gary Boyd, Personal Conversation with ComEd on 10/03/00.

Field Container Company, Marseilles, Illinois, (815) 795-2111, Mr. Don Frederick, Personal Conversation with ComEd on 10/03/00.

CF Industries, Inc., Seneca, Illinois, (815) 357-8811, Mr. Ron Witalka, Personal Conversation with ComEd on 10/03/00.

Evenson Energies, LLC, Morris, Illinois, (815) 942-5800, Ms. Ginger Younker, Personal Conversation with ComEd on 10/03/00.

Explosive Energies, Inc., Morris, Illinois, (815) 942-5802, Ms. Ginger Younker, Personal Conversation with ComEd on 10/03/00.

LaRoche Industries, Inc., Morris, Illinois, (815) 357-8711, Mr. Tony Massa, Personal Conversation with ComEd on 10/03/00.

LaSalle County Generating Station, Marseilles, (815) 357-6761 x 2943, Mr. Fred Bevington, Personal Conversation with ComEd on 10/04/00.