

LASALLE COUNTY NUCLEAR POWER STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (ARERR)
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LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

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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 mRem to any organ, and
 - b) During any calendar year: Less than or equal to 15 mRem 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.

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.

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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 2, 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:

Nuclide	DWC ($\mu\text{Ci/mL}$)
Kr-85m	2.00E-04
Kr-85	5.00E-04
Kr-87	4.00E-05
Kr-88	9.00E-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
Ar-41	7.00E-05

3. Average Energy

- a. Not applicable - average energy is no longer used to determine dose to the public.

4. Measurements and Approximations of Total Radioactivity

a. Gaseous Effluents

- 1) The Containment Vent and Purge System (DW) is sampled prior to release by grab sample and analyzed for principal noble gas gamma emitters and H-3.
- 2) The Station Vent Stack (SVS) is sampled weekly by grab sample and analyzed for principal noble gas gamma emitters and H-3.
- 3) The Standby Gas Treatment (SBGT) System is sampled by grab sample whenever there is flow and analyzed for principal noble gas gamma emitters.
- 4) All release types as listed in 4.a.1) and 4.a.2) above are sampled at the SVS Wide Range Gas Monitor (WRGM), and those listed in 4.a.3) above are sampled at the SBGT WRGM whenever there is flow. These effluents are continuously sampled by charcoal cartridge and particulate filter paper. They are analyzed for iodines and principal gamma emitters, respectively. Particulate filter papers are composited and analyzed for gross alpha (monthly) and Fe-55, Sr-89, and Sr-90 (quarterly). Noble gases, gross beta and gamma are continuously monitored by noble gas monitors for the SVS and the SBGT System.
- 5) Carbon-14
 - a) The LaSalle County Station 2021 total estimate of 32.94 Ci of C-14 (as total C-14 released) is based upon the following:
 - a normalized C-14 production rate of 5.1 Ci/GWt-yr,
 - a gaseous release fraction of 0.99,
 - a reactor power rating of 3546 MWt (per Unit),

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- a Unit 1 equivalent full power operation of 364.3 days (17.87 Ci) and a Unit 2 equivalent full power operation of 307.3 days (15.23 Ci).

Of the 32.94 Ci of C-14 produced only 95% is released as CO₂ (31.3 Ci), which can be incorporated into the environment for dose analysis.

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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: | None |
| 2) Total time period for batch releases: Min. | N/A |
| 3) Maximum time period for a batch release: Min. | N/A |
| 4) Average time period for batch releases: Min. | N/A |
| 5) Minimum time period for a batch release: Min. | N/A |
| 6) Average stream flow during periods of release of effluent into a flowing stream: gpm | N/A |

6. Abnormal Releases

a. Gaseous

- | | |
|-----------------------------|------|
| 1) Number of releases: | None |
| 2) Total activity released: | N/A |
| 3) Summary of release(s): | N/A |

b. Liquid

- | | |
|-----------------------------|------|
| 1) Number of releases: | None |
| 2) Total activity released: | N/A |
| 3) Summary of release(s): | N/A |

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7. Process Control Program

There were no changes to the Process Control Program processing systems or components. There was no use of a solidification agent (e.g., cement, urea formaldehyde, etc.) during the processing of solid radioactive waste.

8. Effluent Monitoring Instrumentation time clocks and sample anomalies

a. Time clocks:

There were no effluent monitoring time clocks exceeded during 2021.

b. Sample anomalies:

There were no sampling anomalies affecting the measurement of effluents experienced during 2021.

9. Offsite Dose Calculation Manual (ODCM) Revisions

Revision 10 of CY-LA-170-301, Offsite Dose Calculation Manual, was issued in September 2021. The ODCM adds the statement “or Required Action C.2 Enter Condition D with a Completion Time of 1 hour” to REC 12.2.2.C. The revision will allow entry into Condition D for condition when one off-gas post-treat channel is INOP rather than placing the at channel in trip, which creates a single point vulnerability to safe and reliable plant operations. Condition D requires grab sampling and analysis when both off-gas post treat channels are INOP.

10. Independent Spent Fuel Storage Installation (ISFSI)

During the period January 1, through December 31, 2021, no radioactive effluents were released from the LaSalle Nuclear Station Independent Spent Fuel Storage Installation (ISFSI). Also, during this period, eight (8) casks were transferred to the outdoor concrete ISFSI storage pad, bringing the total to 49 casks placed on the pad.

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Attachment 1, ARERR Release Summary Tables (RG-1.21 Tables)

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UNIT 1 AND UNIT 2
TABLE 1-A: GASEOUS EFFLUENTS SUMMATION OF ALL RELEASES

A. Fission & Activation Gases	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter4	Total	Est. Total Error %
1. Total Release	Ci	1.97E+01	8.81E+00	7.90E+00	2.10E+00	3.85E+01	2.50E+01
2. Average release rate for the period	μCi/sec	2.50E+00	1.12E+00	1.00E+00	2.66E-01	1.22E+00	
3. Percent of ODCM limit	%	*	*	*	*	*	

B. Radioiodines							
1. Total Iodine – 131	Ci	2.38E-03	1.60E-03	1.32E-03	1.98E-03	7.28E-03	1.50E+01
2. Average release rate for the period	μCi/sec	3.02E-04	2.03E-04	1.68E-04	2.52E-04	2.31E-04	
3. Percent of ODCM limit	%	*	*	*	*	*	

C. Particulates							
1. Particulates with half-lives > 8 days	Ci	5.76E-05	4.40E-05	3.69E-08	1.07E-07	1.02E-04	3.50E+01
2. Average release rate for the period	μCi/sec	7.31E-06	5.58E-06	4.70E-09	1.36E-08	3.23E-06	
3. Percent of ODCM limit	%	*	*	*	*	*	

D. Tritium							
1. Total Release	Ci	3.85E+01	2.34E+01	2.16E+01	1.63E+01	9.98E+01	1.50E+01
2. Average release rate for the period	μCi/sec	4.88E+00	2.97E+00	2.74E+00	2.07E+00	3.17E+00	
3. Percent of ODCM limit	%	*	*	*	*	*	

E. Gross Alpha							
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	N/A
2. Average release rate for the period	μCi/sec	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of ODCM limit	%	*	*	*	*	*	

F. Carbon-14							
1. Total Release	Ci	7.83E+00	7.83E+00	7.83E+00	7.83E+00	3.13E+01	N/A
2. Average release rate for the period	μCi/sec	9.93E-01	9.94E-01	9.93E-01	9.94E-01	9.93E-01	
3. Percent of ODCM 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 μCi/ml

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TABLE 1-B: GASEOUS EFFLUENTS ELEVATED RELEASE UNIT 1 AND UNIT 2

Nuclides Released	Unit	Continuous Mode				
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
A. Fission gases						
Ar-41	Ci	<LLD	1.98E-01	2.31E-01	<LLD	4.29E-01
Kr-85m	Ci	3.82E+00	8.61E+00	7.67E+00	2.10E+00	2.22E+01
Xe-133m	Ci	1.59E+01	<LLD	<LLD	<LLD	1.59E+01
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
Total for Period	Ci	1.97E+01	8.81E+00	7.90E+00	2.10E+00	3.85E+01
B. Iodines						
I-131	Ci	2.38E-03	1.60E-03	1.32E-03	1.98E-03	7.28E-03
I-133	Ci	4.55E-03	4.70E-03	4.84E-03	7.39E-03	2.15E-02
	Ci					
	Ci					
	Ci					
Total for Period	Ci	6.94E-03	6.30E-03	6.16E-03	9.37E-03	2.88E-02
C. Particulates						
Co-60	Ci	5.74E-05	4.39E-05	3.69E-08	1.07E-07	1.02E-04
Y-91m	Ci	6.38E-03	1.11E-02	8.02E-03	< LLD	2.55E-02
Ba-139	Ci	3.30E-02	6.07E-02	9.17E-02	5.35E-02	2.39E-01
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
Total for Period	Ci	3.94E-02	7.18E-02	9.97E-02	5.35E-02	2.65E-01
D. Tritium	Ci	3.85E+01	2.34E+01	2.16E+01	1.63E+01	9.98E+01
E. Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
F. Carbon-14	Ci	7.83E+00	7.83E+00	7.83E+00	7.83E+00	3.13E+01

Note: Only nuclides with positive activity are reported.

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TABLE 1-B: GASEOUS EFFLUENTS ELEVATED RELEASE UNIT 1 AND UNIT 2

Nuclides Released	Unit	Batch Mode				
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
A. Fission gases						
None	Ci	N/A	N/A	N/A	N/A	N/A
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
Total for Period	Ci	N/A	N/A	N/A	N/A	N/A
B. Iodines						
None	Ci	N/A	N/A	N/A	N/A	N/A
	Ci					
	Ci					
	Ci					
	Ci					
Total for Period	Ci	N/A	N/A	N/A	N/A	N/A
C. Particulates						
None	Ci	N/A	N/A	N/A	N/A	N/A
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
	Ci					
Total for Period	Ci	N/A	N/A	N/A	N/A	N/A
D. Tritium	Ci	N/A	N/A	N/A	N/A	N/A
E. Gross Alpha	Ci	N/A	N/A	N/A	N/A	N/A
F. Carbon-14	Ci	N/A	N/A	N/A	N/A	N/A

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TABLE 2A: LIQUID RELEASES UNIT 1 AND UNIT 2 SUMMATION OF ALL LIQUID RELEASES

A. Fission & Activation Products	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter4	Total	Est. Total Error %
1. Total Release (not including tritium, gases & alpha)	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	N/A
2. Average diluted concentration during period	µCi/mL	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of applicable limit	%	*	*	*	*	*	

B. Tritium							
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	N/A
2. Average diluted concentration during period	µCi/mL	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of applicable limit	%	*	*	*	*	*	

C. Dissolved & Entrained Gases							
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	N/A
2. Average diluted concentration during period	µCi/mL	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of applicable limit	□	*	*	*	*	*	

D. Gross Alpha Activity							
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	N/A
2. Average release rate for the period	µCi/mL	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of ODCM limit	%	*	*	*	*	*	

E. Volume of Waste Released (prior to dilution)	Liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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F. Volume of Dilution Water Used During Period	Liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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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 µCi/ml

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TABLE 2B: LIQUID RELEASES UNIT 1 AND UNIT 2

Nuclides Released		Continuous Mode					Batch Mode				
A. Fission & Activation Products	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
None	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ci										
	Ci										
	Ci										
	Ci										
	Ci										
	Ci										
Total for Period	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B. H-3											
H-3 Total for Period	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C. Dissolved & Entrained Gasses											
None	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ci										
	Ci										
	Ci										
	Ci										
	Ci										
	Ci										
	Ci										
Total for Period	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
D. Gross Alpha											
Gross Alpha Total for Period	Ci	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Attachment 2, Solid Waste Shipped from LaSalle

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Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 03/31/2021

Resins, Filters, and Evaporator Bottoms Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	3.80E+01	1.08E+00	1.83E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	3.80E+01	1.08E+00	1.83E+00	+/-25%
Major Nuclides for Above Table: H-3, C-14, Fe-55, Co-60, Ni-59, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Pu-238, Pu-239, Pu-241, Am-241, Cm-242, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Fe-55	25.39%		4.65E-01	
Co-60	71.99%		1.32E+00	
Ni-63	1.47%		2.69E-02	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Fe-55	25.39%		4.65E-01	
Co-60	71.99%		1.32E+00	
Ni-63	1.47%		2.69E-02	

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During Period From 01/01/2021 to 03/31/2021

Dry Active Waste (DAW) Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.32E+04	6.56E+02	1.48E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.32E+04	6.56E+02	1.48E+00	+/-25%
Major Nuclides for Above Table: H-3, C-14, Fe-55, Co-60, Ni-63, Sr-89, Sr-90, Tc-99, I-129, Cs-137, Am-241, Cm-242, Cm-244				
Waste Class A				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
Fe-55	8.88%		1.31E-01	
Co-60	87.06%		1.29E+00	
Cs-137	1.43%		2.12E-02	
Waste Class B				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
Fe-55	8.88%		1.31E-01	
Co-60	87.06%		1.29E+00	
Cs-137	1.43%		2.12E-02	

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Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 03/31/2021

Irradiated Components Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class B				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class C				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Total Combined				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A

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Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
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Other Waste Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.06E+02	5.84E+00	1.89E-02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.06E+02	5.84E+00	1.89E-02	+/-25%
Major Nuclides for Above Table:				
H-3, C-14, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Am-241, Cm-242, Cm-244				
Waste Class A				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
H-3	85.77%		1.62E-02	
Fe-55	1.27%		2.40E-04	
Co-60	12.41%		2.35E-03	
Waste Class B				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name	Percent Abundance		Curies	
None	N/A		N/A	
Total Combined				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
H-3	85.77%		1.62E-02	
Fe-55	1.27%		2.40E-04	
Co-60	12.41%		2.35E-03	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 03/31/2021

Sum of All Low-Level Waste Shipped from the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.34E+04	6.63E+02	3.32E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.34E+04	6.63E+02	3.32E+00	+/-25%
Major Nuclides for Above Table: H-3, C-14, Fe-55, Co-60, Ni-59, Ni-63, Sr-89, Sr-90, Tc-99, I-129, Cs-137, Pu-238, Pu-239, Pu-241, Am-241, Cm-242, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Fe-55	17.92		5.96E-01	
Co-60	78.34		2.61E+00	
Ni-63	1.03		3.43E-02	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Fe-55	17.92		5.96E-01	
Co-60	78.34		2.61E+00	
Ni-63	1.03		3.43E-02	

Total Shipments by Carrier		
Number of Shipments	Mode of Transportation	Destination
10	Hittman Transport	Energy Solutions - Bear Creek 1560 Bear Creek Road
3	Interstate Ventures	Energy Solutions - Bear Creek 1560 Bear Creek Road

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 04/01/2021 to 06/30/2021

Resins, Filters, and Evaporator Bottoms Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	1.41E+03	4.00E+01	1.13E+01	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	1.41E+03	4.00E+01	1.13E+01	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	54.71%		6.18E+00	
Fe-55	2.76%		3.11E-01	
Co-60	39.29%		4.44E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	54.71%		6.18E+00	
Fe-55	2.76%		3.11E-01	
Co-60	39.29%		4.44E+00	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 04/01/2021 to 06/30/2021

Dry Active Waste (DAW) Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	5.17E+03	1.46E+02	8.86E-01	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	5.17E+03	1.46E+02	8.86E-01	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Am-241				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Mn-54	1.92%		1.70E-02	
Fe-55	25.55%		2.27E-01	
Co-60	70.63%		6.26E-01	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Mn-54	1.92%		1.70E-02	
Fe-55	25.55%		2.27E-01	
Co-60	70.63%		6.26E-01	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 04/01/2021 to 06/30/2021

Irradiated Components Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class B				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 04/01/2021 to 06/30/2021

Other Waste Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.63E+02	7.43E+00	2.53E-02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.63E+02	7.43E+00	2.53E-02	+/-25%
Major Nuclides for Above Table:				
H-3, C-14, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Am-241, Cm-242, Cm-244				
Waste Class A				≥ 1% Abundance
Nuclide Name	Percent Abundance		Curies	
H-3	88.93%		2.25E-02	
Co-60	9.65%		2.44E-03	
Waste Class B				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
H-3	88.93%		2.25E-02	
Co-60	9.65%		2.44E-03	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 04/01/2021 to 06/30/2021

Sum of All Low-Level Waste Shipped from the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	6.85E+03	1.94E+02	1.22E+01	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	6.85E+03	1.94E+02	1.22E+01	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Am-241, Cm-242, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	50.63%		6.18E+00	
Fe-55	4.41%		5.38E-01	
Co-60	41.5%		5.07E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	50.63%		6.18E+00	
Fe-55	4.41%		5.38E-01	
Co-60	41.5%		5.07E+00	

Total Shipments by Carrier		
Number of Shipments	Mode of Transportation	Destination
4	Hittman Transport	Energy Solutions - Bear Creek 1560 Bear Creek Road
8	Hittman Transport	Energy Solutions LLC Containerized Waste Facility

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 07/01/2021 to 09/30/2021

Resins, Filters, and Evaporator Bottoms Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	1.20E+03	3.40E+01	2.07E+02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	1.20E+03	3.40E+01	2.07E+02	+/-25%
Major Nuclides for Above Table				
H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Pu-239, Pu-240, Pu-241, Am-241, Cm-242, Cm-243, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	1.76%		3.63E+00	
Fe-55	22.92%		4.74E+01	
Co-60	72.61%		1.50E+02	
Ni-63	1.18%		2.44E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	1.76%		3.63E+00	
Fe-55	22.92%		4.74E+01	
Co-60	72.61%		1.50E+02	
Ni-63	1.18%		2.44E+00	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 07/01/2021 to 09/30/2021

Dry Active Waste (DAW) Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	5.07E+01	1.44E+00	2.90E-01	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	5.07E+01	1.44E+00	2.90E-01	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Am-241				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
H-3	1.1%		3.20E-03	
Mn-54	1.91%		5.55E-03	
Fe-55	25.37%		7.37E-02	
Co-60	70.1%		2.04E-01	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
H-3	1.1%		3.20E-03	
Mn-54	1.91%		5.55E-03	
Fe-55	25.37%		7.37E-02	
Co-60	70.1%		2.04E-01	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 07/01/2021 to 09/30/2021

Irradiated Components Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class B				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined				≥ 1% Abundance
Nuclide Name	Abundance		Curies	
None	N/A		N/A	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 07/01/2021 to 09/30/2021

Other Waste Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class B				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class C				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Total Combined				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 07/01/2021 to 09/30/2021

Sum of All Low-Level Waste Shipped from the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	1.25E+03	3.55E+01	2.07E+02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	1.25E+03	3.55E+01	2.07E+02	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Pu-239, Pu-240, Pu-241, Am-241, Cm-242, Cm-243, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	1.75%		3.63E+00	
Fe-55	22.92%		4.74E+01	
Co-60	72.8%		1.50E+02	
Ni-63	1.18%		2.44E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	1.75%		3.63E+00	
Fe-55	22.92%		4.74E+01	
Co-60	72.8%		1.50E+02	
Ni-63	1.18%		2.44E+00	

Total Shipments by Carrier		
Number of Shipments	Mode of Transportation	Destination
4	Hittman Transport	Energy Solutions - Bear Creek 1560 Bear Creek Road
7	Hittman Transport	Energy Solutions LLC Containerized Waste Facility

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 10/01/2021 to 12/31/2021

Resins, Filters, and Evaporator Bottoms Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	1.77E+02	5.01E+00	4.27E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	1.77E+02	5.01E+00	4.27E+00	+/-25%
Major Nuclides for Above Table				
H-3, C-14, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	58.95%		2.52E+00	
Fe-55	2.74%		1.17E-01	
Co-60	36%		1.54E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	58.95%		2.52E+00	
Fe-55	2.74%		1.17E-01	
Co-60	36%		1.54E+00	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 10/01/2021 to 12/31/2021

Dry Active Waste (DAW) Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name		Abundance	Curies	
None		N/A	N/A	
Waste Class B				≥ 1% Abundance
Nuclide Name		Abundance	Curies	
None		N/A	N/A	
Waste Class C				≥ 1% Abundance
Nuclide Name		Abundance	Curies	
None		N/A	N/A	
Total Combined				≥ 1% Abundance
Nuclide Name		Abundance	Curies	
None		N/A	N/A	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 10/01/2021 to 12/31/2021

Irradiated Components Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 10/01/2021 to 12/31/2021

Other Waste Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class B				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Waste Class C				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A
Total Combined				≥ 1% Abundance
Nuclide Name		Abundance		Curies
None		N/A		N/A

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 10/01/2021 to 12/31/2021

Sum of All Low-Level Waste Shipped from the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	1.77E+02	5.01E+00	4.27E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	1.77E+02	5.01E+00	4.27E+00	+/-25%
Major Nuclides for Above Table: H-3, C-14, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137				
Waste Class A			≥ 1% Abundance	
Nuclide Name		Abundance	Curies	
C-14		58.95%	2.52E+00	
Fe-55		2.74%	1.17E-01	
Co-60		36%	1.54E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name		Abundance	Curies	
None		N/A	N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name		Abundance	Curies	
None		N/A	N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name		Abundance	Curies	
C-14		58.95%	2.52E+00	
Fe-55		2.74%	1.17E-01	
Co-60		36%	1.54E+00	

Total Shipments by Carrier		
Number of Shipments	Mode of Transportation	Destination
1	Hittman Transport	Energy Solutions LLC Containerized Waste Facility

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 12/31/2021

Resins, Filters, and Evaporator Bottoms Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.83E+03	8.02E+01	2.24E+02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.83E+03	8.02E+01	2.24E+02	+/-25%
Major Nuclides for Above Table H-3, C-14, Mn-54, Fe-55, Co-60, Ni-59, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Pu-240, Pu-241, Am-241, Cm-242, Cm-243, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	5.5%		1.23E+01	
Fe-55	21.54%		4.82E+01	
Co-60	70.22%		1.57E+02	
Ni-63	1.15%		2.58E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	5.5%		1.23E+01	
Fe-55	21.54%		4.82E+01	
Co-60	70.22%		1.57E+02	
Ni-63	1.15%		2.58E+00	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 12/31/2021

Dry Active Waste (DAW) Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	2.84E+04	8.04E+02	2.65E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	2.84E+04	8.04E+02	2.65E+00	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-63, Sr-89, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Am-241, Cm-242, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Mn-54	1%		2.66E-02	
Fe-55	16.25%		4.31E-01	
Co-60	79.72%		2.12E+00	
Cs-137	1.06%		2.80E-02	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
Mn-54	1%		2.66E-02	
Fe-55	16.25%		4.31E-01	
Co-60	79.72%		2.12E+00	
Cs-137	1.06%		2.80E-02	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 12/31/2021

Irradiated Components Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	0.00E+00	0.00E+00	0.00E+00	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	0.00E+00	0.00E+00	0.00E+00	+/-25%
Major Nuclides for Above Table:				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 12/31/2021

Other Waste Summary for the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	4.69E+02	1.33E+01	4.42E-02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	4.69E+02	1.33E+01	4.42E-02	+/-25%
Major Nuclides for Above Table: H-3, C-14, Fe-55, Co-60, Ni-63, Sr-90, Tc-99, I-129, Cs-137, Am-241, Cm-242, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
H-3	87.58%		3.87E-02	
Fe-55	1.11%		4.90E-04	
Co-60	10.83%		4.79E-03	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
H-3	87.58%		3.87E-02	
Fe-55	1.11%		4.90E-04	
Co-60	10.83%		4.79E-03	

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

Solid Waste Shipped Offsite for Burial or Disposal and Estimates of Major Nuclides by Waste Class and Stream
During Period From 01/01/2021 to 12/31/2021

Sum of All Low-Level Waste Shipped from the LaSalle Site				
Waste Class	Volume		Curies Shipped	% Error (Activity)
	ft ³	m ³		
A	3.17E+04	8.97E+02	2.27E+02	+/-25%
B	0.00E+00	0.00E+00	0.00E+00	+/-25%
C	0.00E+00	0.00E+00	0.00E+00	+/-25%
Unclassified	0.00E+00	0.00E+00	0.00E+00	+/-25%
All	3.17E+04	8.97E+02	2.27E+02	+/-25%
Major Nuclides for Above Table: H-3, C-14, Mn-54, Fe-55, Co-60, Ni-59, Ni-63, Sr-89, Sr-90, Tc-99, I-129, Cs-137, Ce-144, Pu-238, Pu-239, Pu-240, Pu-241, Am-241, Cm-242, Cm-243, Cm-244				
Waste Class A			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	5.44%		1.23E+01	
Fe-55	21.47%		4.87E+01	
Co-60	70.32%		1.59E+02	
Ni-63	1.14%		2.59E+00	
Waste Class B			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Waste Class C			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
None	N/A		N/A	
Total Combined			≥ 1% Abundance	
Nuclide Name	Abundance		Curies	
C-14	5.44%		1.23E+01	
Fe-55	21.47%		4.87E+01	
Co-60	70.32%		1.59E+02	
Ni-63	1.14%		2.59E+00	

Total Shipments by Carrier		
Number of Shipments	Mode of Transportation	Destination
18	Hittman Transport	Energy Solutions - Bear Creek 1560 Bear Creek Road
16	Hittman Transport	Energy Solutions LLC Containerized Waste Facility
3	Interstate Ventures	Energy Solutions - Bear Creek 1560 Bear Creek Road

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

RADIOLOGICAL IMPACT ON MAN

Attachment 3, Radiological Impact on Man

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

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

Adult Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	1.30E-05	2.60E-04	2.17E-05	4.34E-04	2.07E-05	4.14E-04	4.08E-06	8.16E-05	1.00E+01	5.94E-05	5.94E-04
Beta Air	1.00E+01	mRad	8.34E-06	8.34E-05	4.73E-06	4.73E-05	4.26E-06	4.26E-05	1.11E-06	1.11E-05	2.00E+01	1.84E-05	1.84E-04
NG Total Body	2.50E+00	mRem	8.62E-06	3.45E-04	1.46E-05	5.84E-04	1.39E-05	5.56E-04	2.75E-06	1.10E-04	5.00E+00	3.98E-05	3.98E-04
NG Skin	7.50E+00	mRem	1.84E-05	2.45E-04	2.64E-05	3.52E-04	2.50E-05	3.33E-04	5.08E-06	6.77E-05	1.50E+01	7.49E-05	7.49E-04
NNG Organ	7.50E+00	mRem	3.14E-03	4.19E-02	3.13E-03	4.17E-02	3.13E-03	4.17E-02	3.13E-03	4.17E-02	1.50E+01	1.25E-02	1.25E-01
Teenager Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	1.30E-05	2.60E-04	2.17E-05	4.34E-04	2.07E-05	4.14E-04	4.08E-06	8.16E-05	1.00E+01	5.94E-05	5.94E-04
Beta Air	1.00E+01	mRad	8.34E-06	8.34E-05	4.73E-06	4.73E-05	4.26E-06	4.26E-05	1.11E-06	1.11E-05	2.00E+01	1.84E-05	1.84E-04
NG Total Body	2.50E+00	mRem	8.62E-06	3.45E-04	1.46E-05	5.84E-04	1.39E-05	5.56E-04	2.75E-06	1.10E-04	5.00E+00	3.98E-05	3.98E-04
NG Skin	7.50E+00	mRem	1.84E-05	2.45E-04	2.64E-05	3.52E-04	2.50E-05	3.33E-04	5.08E-06	6.77E-05	1.50E+01	7.49E-05	7.49E-04
NNG Organ	7.50E+00	mRem	4.73E-03	6.31E-02	4.73E-03	6.31E-02	4.72E-03	6.29E-02	4.72E-03	6.29E-02	1.50E+01	1.89E-02	1.89E-01
Child Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	1.30E-05	2.60E-04	2.17E-05	4.34E-04	2.07E-05	4.14E-04	4.08E-06	8.16E-05	1.00E+01	5.94E-05	5.94E-04
Beta Air	1.00E+01	mRad	8.34E-06	8.34E-05	4.73E-06	4.73E-05	4.26E-06	4.26E-05	1.11E-06	1.11E-05	2.00E+01	1.84E-05	1.84E-04
NG Total Body	2.50E+00	mRem	8.62E-06	3.45E-04	1.46E-05	5.84E-04	1.39E-05	5.56E-04	2.75E-06	1.10E-04	5.00E+00	3.98E-05	3.98E-04
NG Skin	7.50E+00	mRem	1.84E-05	2.45E-04	2.64E-05	3.52E-04	2.50E-05	3.33E-04	5.08E-06	6.77E-05	1.50E+01	7.49E-05	7.49E-04
NNG Organ	7.50E+00	mRem	1.11E-02	1.48E-01	1.11E-02	1.48E-01	1.11E-02	1.48E-01	1.11E-02	1.48E-01	1.50E+01	4.44E-02	4.44E-01
Infant Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	1.30E-05	2.60E-04	2.17E-05	4.34E-04	2.07E-05	4.14E-04	4.08E-06	8.16E-05	1.00E+01	5.94E-05	5.94E-04
Beta Air	1.00E+01	mRad	8.34E-06	8.34E-05	4.73E-06	4.73E-05	4.26E-06	4.26E-05	1.11E-06	1.11E-05	2.00E+01	1.84E-05	1.84E-04
NG Total Body	2.50E+00	mRem	8.62E-06	3.45E-04	1.46E-05	5.84E-04	1.39E-05	5.56E-04	2.75E-06	1.10E-04	5.00E+00	3.98E-05	3.98E-04
NG Skin	7.50E+00	mRem	1.84E-05	2.45E-04	2.64E-05	3.52E-04	2.50E-05	3.33E-04	5.08E-06	6.77E-05	1.50E+01	7.49E-05	7.49E-04
NNG Organ	7.50E+00	mRem	1.28E-02	1.71E-01	9.11E-03	1.21E-01	7.80E-03	1.04E-01	1.10E-02	1.47E-01	1.50E+01	4.07E-02	4.07E-01

The LaSalle County Nuclear Power Station maximum expected annual dose from Carbon-14 has been calculated using the maximum gross thermal capacity at full power operation. The resultant bounding doses are based upon site specific assumptions of source term as detailed on page 4.

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

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

Infant Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	% of Limit
10CFR50 Appendix I compliance												
Total Body	1.50E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	3.00E+00	0.00
Organ	5.00E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	1.00E+01	0.00
40CFR141 compliance (nearest public drinking water)												
Total Body		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Organ		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Child Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	% of Limit
10CFR50 Appendix I compliance												
Total Body	1.50E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	3.00E+00	0.00
Organ	5.00E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	1.00E+01	0.00
40CFR141 compliance (nearest public drinking water)												
Total Body		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Organ		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Teenager Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	% of Limit
10CFR50 Appendix I compliance												
Total Body	1.50E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	3.00E+00	0.00
Organ	5.00E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	1.00E+01	0.00
40CFR141 compliance (nearest public drinking water)												
Total Body		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Organ		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Adult Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	% of Limit
10CFR50 Appendix I compliance												
Total Body	1.50E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	3.00E+00	0.00
Organ	5.00E+00	mRem	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	0.00E+00	0.00	1.00E+01	0.00
40CFR141 compliance (nearest public drinking water)												
Total Body		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00
Organ		mRem	0.00E+00		0.00E+00		0.00E+00		0.00E+00		4.00E+00	0.00

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

RADIOLOGICAL IMPACT ON MAN
10CFR20 / 40CFR190 Compliance

	1 st Quarter Dose (mRem)	2 nd Quarter Dose (mRem)	3 rd Quarter Dose (mRem)	4 th Quarter Dose (mRem)	Annual Dose (mRem)	Annual Limit (mRem/yr)	% Annual Limit
Unit 1							
40CFR190 Compliance							
U1 D ^{Ex}	9.65E-02	9.62E-02	7.18E-02	9.82E-02	3.63E-01	25	1.45
10CFR20 Compliance							
U1 D ^{Tot}	1.11E-01	1.07E-01	8.29E-02	1.10E-01	4.11E-01	100	0.41
40CFR190 Compliance							
Bone	1.11E-02	1.11E-02	1.11E-02	1.11E-02	4.44E-02	25	0.18
Liver	2.26E-03	2.24E-03	2.25E-03	2.25E-03	9.00E-03	25	0.04
Thyroid	1.28E-02	9.11E-03	7.80E-03	1.10E-02	4.07E-02	75	0.05
Kidney	2.27E-03	2.25E-03	2.25E-03	2.26E-03	9.03E-03	25	0.04
Lung	2.24E-03	2.23E-03	2.24E-03	2.24E-03	8.95E-03	25	0.04
GI-LLI	2.24E-03	2.24E-03	2.24E-03	2.24E-03	8.96E-03	25	0.04
Skin	3.26E-05	2.50E-05	1.15E-06	1.50E-06	6.02E-05	25	0.00
Unit 2							
40CFR190 Compliance							
U2 D ^{Ex}	5.48E-02	7.72E-02	7.23E-02	9.84E-02	3.03E-01	25	1.21
10CFR20 Compliance							
U2 D ^{Tot}	5.48E-02	7.72E-02	7.23E-02	9.84E-02	3.03E-01	100	0.30
40CFR190 Compliance							
Bone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00
Liver	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00
Thyroid	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	75	0.00
Kidney	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00
Lung	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00
GI-LLI	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00
Skin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	25	0.00

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

Attachment 4, ERRATA from Previous Reports

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2018

ARERR Report Year: 2018

There were several errors discovered in the 2018 Annual Radioactive Effluent Release Report (ARERR):

1. During the V&V of the RACER database for Radiological Environmental Monitoring Program (REMP) and Radioactive Effluents Control (REC) data the RACER group reviewed all the REC data for 2018 to verify dose calculations. During this review they discovered that the GASEOUS EFFLUENTS ELEVATED RELEASE UNIT 1 AND UNIT 2 reported a release of 17.1 Ci of Xe-135m in Q4, which should have been reported as Xe-133m, and a release of 4.62E-4 Ci of Co-60 in Q3 which should have been 4.26E-4 Ci. (AR04349924)
2. Several quarterly composite updates for Standby Gas Treatment (SBGT) had erroneous strontium-89 data included in the database.
3. The second quarter composite update did not include data for strontium 89 for the Station Vent Stack (SVS).
4. The table displaying “The Maximum Doses Resulting from Gaseous Releases and Compliance Status” was revised, to add the annual doses. Previously, only the percent of the limit values were listed. In addition, the annual adult organ dose percent compliance changed from 0.696% to 0.209%

These changes had no significant impact to doses reported to the maximumly exposed individual and organ. The corrections are marked in red.

A. Fission & Activation Gases	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter4	Est. Total Error %
1. Total Release	Ci	1.51E+02	2.40E+02	3.69E+02	2.43E+02	2.50E+01
2. Average release rate for the period	µCi/sec	1.94E+01	3.05E+01	4.64E+01	3.06E+01	
3. Percent of ODCM limit	%	*	*	*	*	
B. Iodine						
1. Total Iodine – 131	Ci	1.23E-02	9.23E-03	1.99E-02	5.98E-03	1.50E+01
2. Average release rate for the period	µCi/sec	1.58E-03	1.17E-03	2.50E-03	7.52E-04	
3. Percent of ODCM limit	%	*	*	*	*	
C. Particulates						
1. Particulates with half-lives > 8 days	Ci	1.11E-03	1.59E-03 1.72E-03	3.46E-03	2.28E-03 2.26E-03	3.50E+01
2. Average release rate for the period	µCi/sec	1.42E-04	2.02E-04 2.18E-04	4.35E-04	2.87E-04	
3. Percent of ODCM limit	%	*	*	*	*	
D. Tritium						
1. Total Release	Ci	5.75E+00	6.07E+00	1.30E+01	1.16E+00	1.50E+01
2. Average release rate for the period	µCi/sec	7.39E-01	7.71E-01	1.63E-00	1.46E-00	
3. Percent of ODCM limit	%	*	*	*	*	
E. Gross Alpha						
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	N/A
2. Average release rate for the period	µCi/sec	<LLD	<LLD	<LLD	<LLD	
3. Percent of ODCM limit	%	*	*	*	*	
F. Carbon-14						
1. Total Release	Ci	8.62E+00	8.62E+00	8.62E+00	8.63E+00	
2. Average release rate for the period	µCi/sec	1.11E+00	1.10E+00	1.09E+00	1.09E+00	
3. Percent of ODCM 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 µCi/ml

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2018

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
A. Fission gases									
Kr-85m	Ci	7.35E+01	8.89E+01	1.05E+02	8.60E+01	N/A	N/A	N/A	N/A
Kr-87	Ci	<LLD	<LLD	3.00E+01	<LLD	N/A	N/A	N/A	N/A
Kr-88	Ci	5.60E+01	1.02E+02	1.77E+02	1.12E+02	N/A	N/A	N/A	N/A
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Xe-133m	Ci	<LLD	<LLD	9.35E-06	1.71E+01	N/A	N/A	N/A	N/A
Xe-133	Ci	1.68E+01	4.87E+01	5.14E+01	2.65E+01	N/A	N/A	N/A	N/A
Xe-135	Ci	4.29E+00	<LLD	5.57E+00	1.35E+00	N/A	N/A	N/A	N/A
Xe-135m	Ci	<LLD	<LLD	<LLD	1.71E+01 <LLD	N/A	N/A	N/A	N/A
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Ar-41	Ci	3.26E-02	5.57E-03	1.77E-02	<LLD	N/A	N/A	N/A	N/A
Total for Period	Ci	1.51E+02	2.40E+02	3.69E+02	2.43E+02	N/A	N/A	N/A	N/A
B. Iodines									
I-131	Ci	1.23E-02	9.23E-03	1.99E-02	5.98E-03	N/A	N/A	N/A	N/A
I-132	Ci	3.07E-02	3.05E-02	6.71E-02	1.74E-02	N/A	N/A	N/A	N/A
I-133	Ci	4.60E-02	4.07E-02	8.68E-02	2.47E-02	N/A	N/A	N/A	N/A
I-134	Ci	3.90E-02	7.63E-03	5.37E-02	<LLD	N/A	N/A	N/A	N/A
I-135	Ci	5.32E-02	4.49E-02	9.71E-02	2.26E-02	N/A	N/A	N/A	N/A
Total for Period	Ci	1.82E-01	1.33E-01	3.25E-01	7.07E-02	N/A	N/A	N/A	N/A
Tot. I-131,I-133,I-135	Ci	1.12E-01	9.48E-02	2.04E-01	5.33E-02	N/A	N/A	N/A	N/A
C. Particulates									
Mn-54	Ci	<LLD	<LLD	<LLD	8.97E-06	N/A	N/A	N/A	N/A
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Co-58	Ci	<LLD	<LLD	<LLD	2.33E-04	N/A	N/A	N/A	N/A
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Co-60	Ci	2.47E-04	1.64E-04	4.62E-04 4.26E-04	9.95E-04	N/A	N/A	N/A	N/A
Zn-65	Ci	<LLD	<LLD	<LLD	2.44E-04	N/A	N/A	N/A	N/A
Sr-89	Ci	<LLD	<LLD 1.30E-04	1.58E-04	3.74E-05	N/A	N/A	N/A	N/A
Mo-99	Ci	<LLD	<LLD	<LLD	2.71E-05	N/A	N/A	N/A	N/A
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Ba-140	Ci	3.60E-04	4.76E-04	1.35E-03	3.14E-04	N/A	N/A	N/A	N/A
La-140	Ci	5.06E-04	9.47E-04	1.53E-03	4.22E-04	N/A	N/A	N/A	N/A
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Total for Period	Ci	1.11E-03	1.59E-03 1.72E-03	3.46E-03 3.93E-03	2.28E-03	N/A	N/A	N/A	N/A
D. Tritium									
H-3 Total for Period	Ci	5.75E+00	6.07E+00	1.30E+01	1.16E+01	N/A	N/A	N/A	N/A
E. Gross Alpha									
Gross Alpha Total for Period	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
F. Carbon-14									
C-14 Total for Period	Ci	8.62E+00	8.62E+00	8.62E+00	8.63E+00	N/A	N/A	N/A	N/A

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2018

	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Infant Receptor													
Gamma Air	5.00E+00	mRad	1.98E-03	0.040	3.49E-03	0.070	6.34E-03	0.127	3.82E-03	0.076	1.00E+01	1.56E-02	0.156
Beta Air	1.00E+01	mRad	9.05E-05	0.001	1.41E-04	0.001	2.96E-04	0.003	1.49E-04	0.001	2.00E+01	6.76E-04	0.003
NG Total Body	2.50E+00	mRem	1.32E-03	0.053	2.33E-03	0.093	4.23E-03	0.169	2.55E-03	0.102	5.00E+00	1.04E-02	0.209
NG Skin	7.50E+00	mRem	2.22E-03	0.030	3.92E-03	0.052	7.15E-03	0.095	4.28E-03	0.057	1.50E+01	1.76E-02	0.117
NNG Organ	7.50E+00	mRem	6.16E-02	0.821	4.68E-02	0.624	9.89E-02	1.32	3.09E-02	0.411	1.50E+01	2.38E-01	1.588
Child Receptor													
Gamma Air	5.00E+00	mRad	1.98E-03	0.040	3.49E-03	0.070	6.34E-03	0.127	3.82E-03	0.076	1.00E+01	1.56E-02	0.156
Beta Air	1.00E+01	mRad	9.05E-05	0.001	1.41E-04	0.001	2.96E-04	0.003	1.49E-04	0.001	2.00E+01	6.76E-04	0.003
NG Total Body	2.50E+00	mRem	1.32E-03	0.053	2.33E-03	0.093	4.23E-03	0.169	2.55E-03	0.102	5.00E+00	1.04E-02	0.209
NG Skin	7.50E+00	mRem	2.22E-03	0.030	3.92E-03	0.052	7.15E-03	0.095	4.28E-03	0.057	1.50E+01	1.76E-02	0.117
NNG Organ	7.50E+00	mRem	2.55E-02	0.340	1.94E-02	0.259	4.10E-02	0.546	1.29E-02	0.172	1.50E+01	9.88E-02	0.659
Teenager Receptor													
Gamma Air	5.00E+00	mRad	1.98E-03	0.040	3.49E-03	0.070	6.34E-03	0.127	3.82E-03	0.076	1.00E+01	1.56E-02	0.156
Beta Air	1.00E+01	mRad	9.05E-05	0.001	1.41E-04	0.001	2.96E-04	0.003	1.49E-04	0.001	2.00E+01	6.76E-04	0.003
NG Total Body	2.50E+00	mRem	1.32E-03	0.053	2.33E-03	0.093	4.23E-03	0.169	2.55E-03	0.102	5.00E+00	1.04E-02	0.209
NG Skin	7.50E+00	mRem	2.22E-03	0.030	3.92E-03	0.052	7.15E-03	0.095	4.28E-03	0.057	1.50E+01	1.76E-02	0.117
NNG Organ	7.50E+00	mRem	1.29E-02	0.171	9.76E-03	0.130	2.06E-02	0.275	6.50E-03	0.087	1.50E+01	4.97E-02	0.332
Adult Receptor													
Gamma Air	5.00E+00	mRad	1.98E-03	0.040	3.49E-03	0.070	6.34E-03	0.127	3.82E-03	0.076	1.00E+01	1.56E-02	0.156
Beta Air	1.00E+01	mRad	9.05E-05	0.00	1.41E-04	0.001	2.96E-04	0.003	1.49E-04	0.001	2.00E+01	6.76E-04	0.003
NG Total Body	2.50E+00	mRem	1.32E-03	0.053	2.33E-03	0.093	4.23E-03	0.169	2.55E-03	0.102	5.00E+00	1.04E-02	0.209
NG Skin	7.50E+00	mRem	2.22E-03	0.030	3.92E-03	0.052	7.15E-03	0.095	4.28E-03	0.057	1.50E+01	1.76E-02	0.117
NNG Organ	7.50E+00	mRem	8.11E-02	0.108	6.15E-03	0.082	1.30E-02	0.174	4.12E-03	0.055	1.50E+01	3.14E-02	0.696 0.209

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2019

ARERR Report Year: 2019

There were several errors discovered in the 2019 Annual Radioactive Effluent Release Report (ARERR).

1. The values for Kr-85m and Kr-88 for the second quarter were switched.
2. The second quarter composite update had erroneous data for strontium 89 for the Station Vent Stack (SVS) and incorrect composite dates.
3. The table displaying “The Maximum Doses Resulting from Gaseous Releases and Compliance Status” was revised, to add the annual doses. Previously, only the percent of the limit values were listed. Changes in organ dose was noted in the first, second, and fourth quarters for the teenager and adult. In addition, the annual teenager and adult organ dose percent compliance changed.

These changes had no significant impact to doses reported to the maximumly exposed individual and organ. The corrections are marked in red.

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
A. Fission gases									
Kr-85m	Ci	5.01E+01	3.66E+01 4.44E+01	3.56E+01	4.82E+01	N/A	N/A	N/A	N/A
Kr-87	Ci	2.18E+00	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Kr-88	Ci	2.10E+01	4.44E+01 3.66E+01	3.10E+00	8.06E+00	N/A	N/A	N/A	N/A
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Xe-133	Ci	7.48E+00	<LLD	5.18E+00	4.43E+00	N/A	N/A	N/A	N/A
Xe-135	Ci	2.48E+01	<LLD	5.45E-03	2.94E+00	N/A	N/A	N/A	N/A
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Ar-41	Ci	6.48E-03	<LLD	<LLD	1.49E-02	N/A	N/A	N/A	N/A
Total for Period	Ci	1.06E+02	8.09E+01	4.39E+01	6.37E+01	N/A	N/A	N/A	N/A
B. Iodines									
I-131	Ci	1.64E-02	1.83E-03	1.90E-03	1.74E-03	N/A	N/A	N/A	N/A
I-132	Ci	3.21E-03	6.03E-04	1.14E-03	<LLD	N/A	N/A	N/A	N/A
I-133	Ci	1.20E-02	6.17E-03	7.56E-03	5.52E-03	N/A	N/A	N/A	N/A
I-134	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
I-135	Ci	3.89E-03	<LLD	1.30E-03	<LLD	N/A	N/A	N/A	N/A
Total for Period	Ci	3.55E-02	8.60E-03	1.19E-02	7.26E-03	N/A	N/A	N/A	N/A
Tot. I-131,I-133,I-135	Ci	3.22E-02	8.00E-03	1.08E-02	7.26E-03	N/A	N/A	N/A	N/A
C. Particulates									
Na-24	Ci	4.27E-04	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Mn-54	Ci	1.93E-05	<LLD	5.85E-05	1.60E-05	N/A	N/A	N/A	N/A
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	3N/A	N/A	N/A	N/A
Co-58	Ci	2.62E-04	3.03E-04	3.26E-04	2.37E-05	N/A	N/A	N/A	N/A
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Co-60	Ci	1.15E-03	1.26E-03	1.51E-03	3.50E-04	N/A	N/A	N/A	N/A
Zn-65	Ci	4.08E-04	5.54E-04	6.68E-04	7.89E-05	N/A	N/A	N/A	N/A
Zn-69m	Ci	4.57E-04	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Sr-89	Ci	<LLD	<LLD	1.54E-04	3.85E-05	N/A	N/A	N/A	N/A

LASALLE COUNTY NUCLEAR POWER STATION
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Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Zr-95	Ci	<LLD	1.10E-05	<LLD	<LLD	N/A	N/A	N/A	N/A
Mo-99	Ci	2.55E-05	<LLD	8.39E-05	9.78E-07	N/A	N/A	N/A	N/A
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Ba-140	Ci	1.95E-04	9.76E-05	4.68E-04	<LLD	N/A	N/A	N/A	N/A
La-140	Ci	8.14E-05	2.87E-05	4.06E-04	5.69E-05	N/A	N/A	N/A	N/A
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Hf-181	Ci	<LLD	1.62E-05	<LLD	<LLD				
Total for Period	Ci	3.03E-03	2.27E-03	3.68E-03	5.65E-04	N/A	N/A	N/A	N/A
D. Tritium	Ci	3.71E+01	1.02E+01	1.07E+01	1.35E+01	N/A	N/A	N/A	N/A
E. Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
F. Carbon-14	Ci	8.69E+00	8.69E+00	8.69E+00	8.68E+00	N/A	N/A	N/A	N/A

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2019

Infant Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	8.91E-04	0.018	1.27E-03	0.025	1.71E-04	0.003	3.66E-04	0.007	1.00E+01	2.70E-03	0.027
Beta Air	1.00E+01	mRad	6.74E-05	0.001	5.22E-05	0.001	2.27E-05	0.000	3.50E-05	0.000	2.00E+01	1.77E-04	0.001
NG Total Body	2.50E+00	mRem	5.95E-04	0.024	8.46E-04	0.034	1.14E-04	0.005	2.45E-04	0.010	5.00E+00	1.80E-03	0.036
NG Skin	7.50E+00	mRem	1.02E-03	0.014	1.42E-03	0.019	2.00E-04	0.003	4.22E-04	0.056	1.50E+01	3.06E-03	0.020
NNG Organ	7.50E+00	mRem	7.94E-02	1.059	1.05E-02	0.140	1.09E-02	0.146	1.00E-02	0.133	1.50E+01	1.11E-01	0.739
Child Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	8.91E-04	0.018	1.27E-03	0.025	1.71E-04	0.003	3.66E-04	0.007	1.00E+01	2.70E-03	0.027
Beta Air	1.00E+01	mRad	6.74E-05	0.001	5.22E-05	0.001	2.27E-05	0.000	3.50E-05	0.000	2.00E+01	1.77E-04	0.001
NG Total Body	2.50E+00	mRem	5.95E-04	0.024	8.46E-04	0.034	1.14E-04	0.005	2.45E-04	0.010	5.00E+00	1.80E-03	0.036
NG Skin	7.50E+00	mRem	1.02E-03	0.014	1.42E-03	0.019	2.00E-04	0.003	4.22E-04	0.056	1.50E+01	3.06E-03	0.020
NNG Organ	7.50E+00	mRem	3.29E-02	0.439	4.52E-03	0.060	4.71E-03	0.063	4.25E-03	0.057	1.50E+01	4.64E-02	0.309
Teenager Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	8.91E-04	0.018	1.27E-03	0.025	1.71E-04	0.003	3.66E-04	0.007	1.00E+01	2.70E-03	0.027
Beta Air	1.00E+01	mRad	6.74E-05	0.001	5.22E-05	0.001	2.27E-05	0.000	3.50E-05	0.000	2.00E+01	1.77E-04	0.001
NG Total Body	2.50E+00	mRem	5.95E-04	0.024	8.46E-04	0.034	1.14E-04	0.005	2.45E-04	0.010	5.00E+00	1.80E-03	0.036
NG Skin	7.50E+00	mRem	1.02E-03	0.014	1.42E-03	0.019	2.00E-04	0.003	4.22E-04	0.056	1.50E+01	3.06E-03	0.020
NNG Organ	7.50E+00	mRem	1.09E-02 1.67E-02	0.146 0.222	4.71E-03 2.28E-03	0.063 0.030	2.39E-03	0.032	1.54E-03 2.10E-03	0.021 0.028	1.50E+01	2.35E-02	0.156
Adult Receptor	Quarterly Limit	Units	1st Quarter	% of Limit	2nd Quarter	% of Limit	3 rd Quarter	% of Limit	4th Quarter	% of Limit	Annual Limit	Annual	% of Limit
Gamma Air	5.00E+00	mRad	8.91E-04	0.018	1.27E-03	0.025	1.71E-04	0.003	3.66E-04	0.007	1.00E+01	2.70E-03	0.027
Beta Air	1.00E+01	mRad	6.74E-05	0.001	5.22E-05	0.001	2.27E-05	0.000	3.50E-05	0.000	2.00E+01	1.77E-04	0.001
NG Total Body	2.50E+00	mRem	5.95E-04	0.024	8.46E-04	0.034	1.14E-04	0.005	2.45E-04	0.010	5.00E+00	1.80E-03	0.036
NG Skin	7.50E+00	mRem	1.02E-03	0.014	1.42E-03	0.019	2.00E-04	0.003	4.22E-04	0.056	1.50E+01	3.06E-03	0.020
NNG Organ	7.50E+00	mRem	1.00E-02 1.06E-02	0.133 0.141	4.25E-03 1.46E-03	0.057 0.019	2.10E-03	0.028	1.32E-03	0.018	1.50E+01	1.49E-02	0.099

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2020

ARERR Report Year: 2020

There were several errors discovered in the 2020 Annual Radioactive Effluent Release Report (ARERR).

1. The reporting software that is used to produce Table 1A and Table 1B for the gaseous releases only produces those tables with particulate and iodine nuclides with half-life of greater than eight days. Other reporting software must be used to obtain all nuclides reported in the year.
2. The gaseous summary table report Particulates with half-lives > 8 days also includes the carbon-14 values. This number must be removed and reported separately.

These changes had no impact to doses reported to the maximumly exposed individual and organ. The corrections are marked in red.

A. Fission & Activation Gases	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Est. Total Error %
1. Total Release	Ci	1.18E+02	7.58E+01	3.28E+01	2.30E+01	2.50E+01
2. Average release rate for the period	μCi/sec	1.50E+01	9.62E+00	4.16E+00	2.92E+00	
3. Percent of ODCM limit	%	*	*	*	*	
B. Iodine						
1. Total Iodine – 131	Ci	2.59E-03	2.12E-03	2.30E-03	1.78E-03	1.50E+01
2. Average release rate for the period	μCi/sec	3.28E-04	2.69E-04	2.92E-04	2.26E-04	
3. Percent of ODCM limit	%	*	*	*	*	
C. Particulates						
1. Particulates with half-lives > 8 days	Ci	8.30E+00 6.87E-05	8.79E+00 1.52E-04	9.02E+00 4.20E-05	8.93E+00 <LLD	3.50E+01
2. Average release rate for the period	μCi/sec	1.05E+00 8.73E-06	1.12E+00 1.94E-05	1.14E+00 5.28E-06	1.13E+00 N/A	
3. Percent of ODCM limit	□	*	*	*	*	
D. Tritium						
1. Total Release	Ci	1.36E+01	1.90E+01	1.69E+01	3.68E+01	1.50E+01
2. Average release rate for the period	μCi/sec	1.73E+00	2.41E+00	2.14E+00	4.67E+00	
3. Percent of ODCM limit	%	*	*	*	*	
E. Gross Alpha						
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	N/A
2. Average release rate for the period	μCi/sec	<LLD	<LLD	<LLD	<LLD	
3. Percent of ODCM limit	%	*	*	*	*	
F. Carbon-14						
1. Total Release	Ci	8.30E+00	8.79E+00	9.02E+00	8.93E+00	
2. Average release rate for the period	μCi/sec	1.06E+00	1.11E+00	1.14E+00	1.13E+00	
3. Percent of ODCM 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 μCi/ml

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

ERRATA FROM PREVIOUS REPORTS

REPORT YEAR: 2020

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
A. Fission gases									
Ar-41	Ci	6.62E-03	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
Kr-85m	Ci	4.97E+01	3.78E+01	3.08E+01	1.67E+01	N/A	N/A	N/A	N/A
Kr-88	Ci	3.59E+01	2.19E+01	2.00E+00	6.31E+00	N/A	N/A	N/A	N/A
Xe-133	Ci	3.28E+01	1.61E+01	<LLD	<LLD	N/A	N/A	N/A	N/A
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
Total for Period	Ci	1.18E+02	7.58E+01	3.28E+01	2.30E+01	N/A	N/A	N/A	N/A
B. Iodines									
I-131	Ci	2.59E-03	2.12E-03	2.30E-03	1.78E-03	N/A	N/A	N/A	N/A
I-132	Ci	<LLD	3.34E-03	1.74E-03	1.45E-03	N/A	N/A	N/A	N/A
I-133	Ci	6.30E-03	8.08E-03	9.46E-03	7.28E-03	N/A	N/A	N/A	N/A
I-135	Ci	7.85E-04	3.81E-03	3.38E-03	3.19E-03	N/A	N/A	N/A	N/A
	Ci								
	Ci								
Total for Period	Ci	9.67E-03	1.40E-02	1.51E-02	1.22E-02	N/A	N/A	N/A	N/A
			1.74E-02	1.69E-02	1.37E-02				
C. Particulates									
Co-60	Ci	6.86E-05	6.06E-05	4.20E-05	<LLD	N/A	N/A	N/A	N/A
Ba-140	Ci	<LLD	9.18E-05	<LLD	<LLD	N/A	N/A	N/A	N/A
La-140	Ci	<LLD	<LLD	<LLD	4.24E-05	N/A	N/A	N/A	N/A
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
	Ci								
Total for Period	Ci	6.86E-05	1.52E-04	4.20E-05	<LLD	N/A	N/A	N/A	N/A
					4.24E+01				
D. Tritium	Ci	1.36E+01	1.90E+01	1.69E+01	3.68E+01	N/A	N/A	N/A	N/A
E. Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	N/A	N/A	N/A	N/A
F. Carbon-14	Ci	8.30E+00	8.79E+00	9.02E+00	8.93E+00	N/A	N/A	N/A	N/A

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

METEOROLOGICAL DATA

Attachment 5, Meteorological Data

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

METEOROLOGICAL DATA

The meteorological tower is 400 ft. high and is instrumented at three levels. Wind speed and direction are measured at 33 ft., 200 ft., and 375 ft. Ambient temperature is measured at 33 ft. Differential temperatures, referenced to 33 ft., are measured at 200 ft. and 375 ft. Precipitation data is measured at approximately 10 ft.

Joint frequency stability wind rose tables of wind direction, wind speed, and stability are routinely tabulated from hourly measurements. The quarterly and annual tables are included in this attachment.

The LaSalle Station meteorological monitoring program produced 78,345 hours of valid data out of a possible 78,840 parameter hours during 2021 (365 x 24 hours per day x 9 measured priority parameters), which represents an overall data recovery rate of 99.4%.

Table 1 Wind Direction Classes

IF	348.75°	<	WD	<	11.25°	THEN	Class is	N
IF	11.25°	<	WD	<	33.75°	THEN	Class is	NNE
IF	33.75°	<	WD	<	56.25°	THEN	Class is	NE
IF	56.25°	<	WD	<	78.75°	THEN	Class is	ENE
IF	78.75°	<	WD	<	101.25°	THEN	Class is	E
IF	101.25°	<	WD	<	123.75°	THEN	Class is	ESE
IF	123.75°	<	WD	<	146.25°	THEN	Class is	SE
IF	146.25°	<	WD	<	168.75°	THEN	Class is	SSE
IF	168.75°	<	WD	<	191.25°	THEN	Class is	S
IF	191.25°	<	WD	<	213.75°	THEN	Class is	SSW
IF	213.75°	<	WD	<	236.25°	THEN	Class is	SW
IF	236.25°	<	WD	<	258.75°	THEN	Class is	WSW
IF	258.75°	<	WD	<	281.25°	THEN	Class is	W
IF	281.25°	<	WD	<	303.75°	THEN	Class is	WNW
IF	303.75°	<	WD	<	326.25°	THEN	Class is	NW
IF	326.25°	<	WD	<	348.75°	THEN	Class is	NNW

Table 2 Wind Speed Classes

IF	0.0 mph	<	WS	<	0.5 mph	THEN	Class is	1
IF	0.5 mph	<	WS	<	3.5 mph	THEN	Class is	2
IF	3.5 mph	<	WS	<	7.5 mph	THEN	Class is	3
IF	7.5 mph	<	WS	<	12.5 mph	THEN	Class is	4
IF	12.5 mph	<	WS	<	18.5 mph	THEN	Class is	5
IF	18.5 mph	<	WS	<	24.5 mph	THEN	Class is	6
IF	24.5 mph	<	WS			THEN	Class is	7

LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)

METEOROLOGICAL DATA

Table 3 Atmospheric Stability Classes

Class	Differential Temperature Interval (in °C/100m) ¹	Differential Temperature Interval (in °F over the 200-33ft. range) ²	Differential Temperature Interval (in °F over the 375-33ft. range) ²
Extremely Unstable	$\Delta T \leq -1.9$	$\Delta T \leq -1.8$	$\Delta T \leq -3.6$
Moderately Unstable	$-1.9 < \Delta T \leq -1.7$	$-1.8 < \Delta T \leq -1.6$	$-3.6 < \Delta T \leq -3.2$
Slightly Unstable	$-1.7 < \Delta T \leq -1.5$	$-1.6 < \Delta T \leq -1.4$	$-3.2 < \Delta T \leq -2.9$
Neutral	$-1.5 < \Delta T \leq -0.5$	$-1.4 < \Delta T \leq -0.5$	$-2.9 < \Delta T \leq -1.0$
Slightly Stable	$-0.5 < \Delta T \leq 1.5$	$-0.5 < \Delta T \leq 1.3$	$-1.0 < \Delta T \leq 2.8$
Moderately Stable	$1.5 < \Delta T \leq 4.0$	$1.3 < \Delta T \leq 3.6$	$2.8 < \Delta T \leq 7.5$
Extremely Stable	$4.0 < \Delta T$	$3.6 < \Delta T$	$7.5 < \Delta T$

Table 4 Data Recovery Summary 2021

Measurement	Elevation	Recovered Hours	Recovered Percent	Lost Hours	Percent Changed
Wind Speed	33 ft.	8751	99.9	9	0.1
Wind Speed	200 ft.	8533	97.4	227	2.7
Wind Speed	375 ft.	8549	97.6	211	2.5
Wind Direction	33 ft.	8752	99.9	8	0.1
Wind Direction	200 ft.	8752	99.9	8	0.1
Wind Direction	375 ft.	8752	99.9	8	0.1
Ambient Temperature	33 ft.	8752	99.9	8	0.1
Differential Temperature	200-33 ft.	8752	99.9	8	0.2
Differential Temperature	375-33 ft.	8752	99.9	8	0.7
Precipitation	10 ft.	8755	99.9	5	1.5
AVERAGE*			99.4		

* Average of priority parameters (all except precipitation)

¹ from ANSI/ANS 2.5

² ANSI/ANS 2.5 intervals scaled for instrument heights on the LaSalle meteorological tower

**LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)**

METEOROLOGICAL DATA

LaSalle County Generating Station
33 ft. Wind Speed and Direction

January-March 2021
200Ft-33Ft Delta-T (F)

SPEED CLASS	WIND DIRECTION CLASSES																TOTAL	STABILITY CLASSES						TOTAL	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		EU	MU	SU	N	SS	MS		ES
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.19	0.19							
1 MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.05	0.14	0.00	0.09	0.00	0.00	0.42	0.42							
9 SU	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.05	0.14	0.00	0.00	0.32		0.32						
- N	0.00	0.70	0.32	0.60	0.09	0.37	0.05	0.05	0.09	0.19	0.32	0.14	0.84	0.97	0.09	0.00	4.83			4.83					
2 SS	0.00	0.00	0.00	0.00	0.05	0.14	0.37	0.42	0.74	0.32	0.23	0.00	0.56	0.28	0.00	0.00	3.11			3.11					
4 MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.05	0.00	0.00	0.00	0.00	0.19				0.19				
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09						0.09		
																									9.14
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09							
G MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.14	0.14							
T SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.05	0.00	0.00	0.00	0.05	0.00	0.23		0.23						
N	0.00	0.00	0.05	0.09	0.19	0.00	0.00	0.05	0.05	0.14	0.00	0.00	0.09	0.14	0.14	0.00	0.93			0.93					
2 SS	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.09	0.14	0.23	0.00	0.00	0.37	0.05	0.00	0.00	0.97			0.97					
4 MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00				
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00		0.00	
																									2.37
TOT	8.68	3.43	4.50	2.97	4.36	4.04	6.45	4.55	6.64	6.17	5.20	6.03	9.74	11.23	5.48	10.53	100.00	0.51	1.21	2.83	49.51	26.54	10.30	9.10	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.51	Extremely Unstable
0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.32	0.19	0.14	0.19	0.05	0.23	0.00	0.00	1.21	Moderately Unstable
0.00	0.05	0.14	0.23	0.00	0.09	0.14	0.32	0.51	0.42	0.09	0.09	0.19	0.32	0.19	0.05	2.83	Slightly Unstable
6.73	2.60	3.57	1.81	2.18	1.25	1.44	0.74	1.62	1.39	1.58	2.46	4.64	5.80	2.74	8.96	49.51	Neutral
1.81	0.79	0.79	0.74	1.25	1.21	2.00	1.72	1.76	1.67	1.76	1.39	3.02	3.25	2.00	1.39	26.54	Slightly Stable
0.14	0.00	0.00	0.05	0.70	0.70	0.93	0.65	0.84	1.11	1.11	1.53	0.93	0.97	0.56	0.09	10.30	Moderately Stable
0.00	0.00	0.00	0.00	0.23	0.79	1.90	1.11	1.21	1.39	0.51	0.32	0.93	0.65	0.00	0.05	9.10	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-
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C A L M
0.23	0.00	0.09	0.19	0.32	0.00	0.19	0.19	0.32	0.09	0.14	0.09	0.23	0.19	0.14	0.14	2.55	< 3.5 mph
2.41	1.39	0.74	0.42	1.48	1.39	1.86	0.74	1.39	1.02	0.70	1.11	1.44	2.09	0.74	1.81	20.74	3.6 - 7.5 mph
4.59	0.97	1.81	1.30	1.76	1.58	3.06	1.86	1.58	1.86	1.25	2.41	4.36	4.59	3.39	4.32	40.70	7.6 - 12.5 mph
1.44	0.37	1.48	0.32	0.42	0.56	0.88	1.16	1.81	2.13	2.23	2.00	1.81	2.69	0.93	4.27	24.50	12.6 - 18.5 mph
0.00	0.70	0.32	0.65	0.14	0.51	0.42	0.46	1.16	0.60	0.74	0.42	1.44	1.48	0.09	0.00	9.14	18.6 - 24.5 mph
0.00	0.00	0.05	0.09	0.23	0.00	0.05	0.14	0.37	0.46	0.14	0.00	0.46	0.19	0.19	0.00	2.37	> 24.5 mph

**LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)**

METEOROLOGICAL DATA

LaSalle County Generating Station
33 ft. Wind Speed and Direction

October-December 2021
200Ft-33Ft Delta-T (F)

SPEED CLASS	WIND DIRECTION CLASSES																TOTAL	STABILITY CLASSES						TOTAL	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		EU	MU	SU	N	SS	MS		ES
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.05							
1 MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
9 SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05		0.05						
- N	0.00	0.00	0.09	0.54	0.05	0.14	0.00	0.05	0.36	0.36	0.09	0.73	0.82	0.68	0.23	0.09	4.22			4.22					
2 SS	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.18	0.32	0.27	0.09	0.05	0.41	0.45	0.00	0.00	1.81			1.81					
4 MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00				
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00			
TOT	4.67	2.36	1.81	4.94	6.17	3.72	4.99	5.76	11.06	10.65	6.66	6.03	11.15	11.38	3.49	5.17	100.00	0.09	0.23	2.09	42.11	30.69	14.37	10.43	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.09	Extremely Unstable
0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.09	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.23	Moderately Unstable
0.00	0.00	0.00	0.05	0.00	0.14	0.00	0.09	0.36	0.32	0.54	0.05	0.14	0.36	0.05	0.00	2.09	Slightly Unstable
3.08	1.72	1.31	3.81	1.99	1.22	1.77	1.90	2.81	3.45	2.04	2.27	4.35	4.76	1.90	3.72	42.11	Neutral
1.36	0.54	0.41	0.82	2.22	0.82	1.27	2.31	4.26	3.13	1.68	1.59	3.54	4.58	1.13	1.04	30.69	Slightly Stable
0.14	0.09	0.09	0.27	1.31	0.50	0.77	1.00	1.54	1.95	1.63	1.27	1.72	1.50	0.27	0.32	14.37	Moderately Stable
0.09	0.00	0.00	0.00	0.63	1.00	1.18	0.45	1.99	1.77	0.73	0.86	1.31	0.18	0.14	0.09	10.43	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-
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C A L M
0.14	0.05	0.09	0.18	0.14	0.00	0.18	0.14	0.32	0.36	0.09	0.05	0.14	0.05	0.14	0.18	2.22	< 3.5 mph
2.77	0.91	0.41	0.36	1.68	1.86	2.04	1.72	3.08	2.13	1.50	1.50	2.63	1.90	1.00	1.54	27.02	3.6 - 7.5 mph
1.22	1.18	1.04	2.13	3.17	0.86	1.63	1.99	3.67	4.22	2.18	1.77	4.13	4.58	1.04	1.72	36.54	7.6 - 12.5 mph
0.54	0.23	0.18	1.63	1.13	0.86	1.04	1.63	2.99	2.99	2.67	1.77	2.49	2.86	1.09	1.63	25.75	12.6 - 18.5 mph
0.00	0.00	0.09	0.54	0.05	0.14	0.05	0.23	0.68	0.63	0.23	0.77	1.27	1.13	0.23	0.09	6.12	18.6 - 24.5 mph
0.00	0.00	0.00	0.09	0.00	0.00	0.05	0.05	0.32	0.32	0.00	0.18	0.50	0.86	0.00	0.00	2.36	> 24.5 mph

**LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)**

METEOROLOGICAL DATA

LaSalle County Generating Station
33 ft. Wind Speed and Direction

January-December 2021
200Ft-33Ft Delta-T (F)

SPEED CLASS	WIND DIRECTION CLASSES																TOTAL	STABILITY CLASSES						TOTAL	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		EU	MU	SU	N	SS	MS		ES
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.10	0.06	0.02	0.02	0.00	0.00	0.00	0.25	0.25							
1 MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.03	0.09	0.03	0.03	0.02	0.00	0.00	0.29	0.29	0.23						
9 SU	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.05	0.02	0.03	0.07	0.00	0.01	0.23		0.23						
- N	0.00	0.17	0.10	0.29	0.06	0.13	0.02	0.03	0.14	0.18	0.18	0.25	0.42	0.42	0.08	0.06	2.54			2.54					
2 SS	0.00	0.00	0.00	0.00	0.01	0.03	0.10	0.15	0.26	0.25	0.09	0.01	0.24	0.18	0.00	0.00	1.34			1.34					
4 MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.05				0.05				
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02						0.02		
																								0.02	4.71
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.11	0.11							
G MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.06	0.06							
T SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.01	0.02	0.00	0.01	0.00	0.11		0.11						
N	0.00	0.00	0.01	0.05	0.05	0.00	0.00	0.02	0.01	0.09	0.00	0.05	0.05	0.03	0.03	0.00	0.39			0.39					
2 SS	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.11	0.10	0.00	0.02	0.17	0.23	0.00	0.00	0.70			0.70					
4 MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00				
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00		1.37
TOT	5.80	3.36	4.55	5.48	5.72	3.78	4.74	5.17	8.92	9.22	8.49	6.40	8.55	8.82	4.49	6.51	100.00	1.91	2.92	5.80	41.11	27.07	12.27	8.92	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
0.16	0.11	0.15	0.08	0.02	0.00	0.00	0.01	0.25	0.21	0.23	0.27	0.15	0.10	0.07	0.09	1.91	Extremely Unstable
0.11	0.13	0.17	0.10	0.06	0.05	0.03	0.05	0.33	0.32	0.47	0.33	0.26	0.23	0.21	0.07	2.92	Moderately Unstable
0.24	0.07	0.30	0.32	0.16	0.09	0.14	0.27	0.59	0.71	0.81	0.38	0.53	0.69	0.30	0.21	5.80	Slightly Unstable
3.46	1.93	3.00	3.00	1.89	1.13	1.54	1.48	2.62	2.87	2.78	1.97	3.27	3.56	1.92	4.69	41.11	Neutral
1.46	0.98	0.74	1.29	1.62	1.02	1.40	1.96	2.68	2.64	2.31	1.60	2.37	2.54	1.37	1.08	27.07	Slightly Stable
0.31	0.08	0.14	0.48	1.32	0.78	0.66	0.66	1.21	1.40	1.18	1.24	1.17	1.04	0.41	0.19	12.27	Moderately Stable
0.06	0.06	0.06	0.21	0.65	0.71	0.96	0.74	1.24	1.08	0.71	0.61	0.80	0.66	0.21	0.18	8.92	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-
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C A L M
0.46	0.38	0.46	1.05	1.28	0.57	0.46	0.32	0.32	0.25	0.19	0.29	0.50	0.69	0.56	0.49	8.27	< 3.5 mph
2.61	1.61	1.73	1.76	2.15	1.86	2.06	1.98	2.68	2.06	1.75	1.88	2.47	2.24	1.29	1.60	31.74	3.6 - 7.5 mph
2.03	1.03	1.68	1.69	1.65	0.82	1.54	1.83	3.49	3.60	3.67	2.32	2.99	3.00	1.68	2.41	35.45	7.6 - 12.5 mph
0.71	0.17	0.57	0.63	0.51	0.35	0.53	0.79	1.69	2.45	2.29	1.48	1.59	1.93	0.82	1.93	18.46	12.6 - 18.5 mph
0.00	0.17	0.10	0.30	0.07	0.16	0.13	0.19	0.53	0.61	0.50	0.35	0.76	0.70	0.08	0.07	4.71	18.6 - 24.5 mph
0.00	0.00	0.01	0.05	0.06	0.00	0.02	0.06	0.22	0.25	0.08	0.08	0.24	0.26	0.05	0.00	1.37	> 24.5 mph

**LASALLE COUNTY NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT (2021)**

METEOROLOGICAL DATA

LaSalle County Generating Station
375 ft. Wind Speed and Direction

January-December 2021
375Ft-33Ft Delta-T (F)

Number of Observations = 8549
Values are Percent Occurrence

SPEED CLASS	WIND DIRECTION CLASSES																TOTAL	STABILITY CLASSES						TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		EU	MU	SU	N	SS	MS	
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L SS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- N	0.09	0.09	0.08	0.05	0.05	0.11	0.06	0.07	0.05	0.02	0.04	0.07	0.07	0.06	0.02	0.06	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 SS	0.04	0.02	0.06	0.05	0.02	0.01	0.07	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MS	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.04	0.02	0.07	0.05	0.04	0.04	0.01	0.01	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 SU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- N	0.64	0.51	0.56	0.60	0.44	0.23	0.40	0.21	0.46	0.33	0.41	0.47	0.42	0.26	0.36	0.41	6.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 SS	0.18	0.23	0.28	0.39	0.32	0.29	0.22	0.26	0.28	0.30	0.33	0.19	0.15	0.07	0.11	0.12	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MS	0.05	0.08	0.11	0.11	0.05	0.07	0.12	0.13	0.11	0.14	0.26	0.15	0.19	0.11	0.11	0.04	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.01	0.06	0.02	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8 SU	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- N	0.97	1.01	0.89	0.96	0.73	0.46	0.29	0.50	0.77	0.91	0.97	0.75	0.75	1.02	0.75	0.83	12.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 SS	0.53	0.54	0.55	0.43	0.61	0.34	0.36	0.28	0.51	0.64	0.66	0.27	0.47	0.42	0.47	0.23	7.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 MS	0.11	0.15	0.09	0.02	0.05	0.08	0.27	0.18	0.32	0.20	0.19	0.12	0.25	0.26	0.27	0.07	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	0.01	0.00	0.00	0.00	0.07	0.05	0.06	0.07	0.05	0.11	0.12	0.04	0.02	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 SU	0.02	0.00	0.04	0.01	0.01	0.00	0.00	0.01	0.05	0.05	0.01	0.00	0.00	0.06	0.02	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- N	1.13	0.84	1.23	0.82	0.57	0.32	0.41	0.62	0.90	1.04	1.15	0.76	1.04	1.25	1.18	1.33	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 SS	0.48	0.64	0.51	0.28	0.51	0.46	0.35	0.81	1.16	1.09	0.96	0.56	0.66	1.08	0.62	0.55	10.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8 MS	0.15	0.05	0.05	0.01	0.15	0.32	0.46	0.28	0.56	0.40	0.46	0.25	0.22	0.44	0.37	0.13	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	0.01	0.00	0.00	0.05	0.19	0.09	0.11	0.08	0.06	0.05	0.12	0.01	0.01	0.01	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00

