



**St. Marys Cement Inc. (Canada)
St Marys Facility**

**Annual Compliance Report 2024
(ECA No. 6394-D78PR2)**

Site Location:

585 Water St South
St Marys Ontario
N4X 1B6

Prepared by: Kara Pelissero
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June 2025

St Marys Cement Inc (Canada) – St Marys Plant
2024 Annual Compliance Report
ECA 6394-D78PR2

Introduction

This annual compliance report has been prepared by St. Marys Cement Inc. (Canada) (SMC) in accordance with Condition 18.1 of their Environmental Compliance Approval (ECA No. 6397-D78PR2, dated November 11, 2024) for their cement plant located at 585 Water St in St Marys Ontario (St Marys Facility) for the 2024 calendar year.

Excerpt from the ECA

Condition 18: Compliance Report

"The Company shall prepare and submit by June 30 of each year to the District Manager, an Annual Report summarizing the operation of the Facility, covering the previous calendar year. The Annual Report shall include, as a minimum, the following information:

- a) a statement of whether the Facility was in compliance with this Approval, including compliance with the Performance Limits;*
- b) the Emission Summary Table and Acoustic Assessment Summary Table for the Facility as of December 31 from the previous calendar year;*
- c) clinker and cement production in tonnes per year;*
- d) maximum daily feed rate and average daily feed rate of Alternative Low-Carbon Fuels and Conventional Fuels in the Cement Kiln for each month of the preceding calendar year, and the weight percentage of each category of Alternative Low-Carbon Fuels approved under Condition 7 of this Approval, of the total monthly Alternative Low-Carbon Fuel used.*
- e) maximum and average percent thermal replacement of Conventional Fuels by combined Alternative Low-Carbon Fuels for each month;*
- f) a summary of data from CEM System, CPM System, Source Testing and Carbon Dioxide Emission Intensity testing described under conditions 10.3(a) and (b), 11 and 12 of this Approval, and a description of the status of compliance with the Performance Limits, Alternative Low-Carbon Fuel definition under this Approval and Alternative Low-Carbon Fuels operational requirements described in Schedule F of this Approval;*
- g) a summary of dates, duration and reasons for any operational events including but not limited to events described in condition 8.7 of this Approval that may have negatively impacted the quality of the environment and corrective measures taken to address these impacts;*
- h) details of environmental complaints including a summary of complaints received, causes of complaints and action taken to avoid the recurrence of similar incidents, as described in condition 14 of this Approval."*

This report has been divided into eight separate sections (Sections A to H) to address Conditions 18.1 a) through h), respectively, as described above.

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A. Section A – Statement of Compliance

This Section addresses Condition 18.1a) of the ECA described as below:

"Statement of whether the Facility was in compliance with this Approval, including compliance with the Performance Limits."



St Marys Cement
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June 30th, 2025

Ministry of the Environment, Conservation and Parks
Director, Client Services and Permissions Branch
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

Re. Statement of Facility within Performance Limits Environmental Compliance Approval with Limited Operational Flexibility (ECA Number 6394-D78PR2).

This is to confirm that St. Marys Cement Inc. (Canada)'s (SMC's) St. Marys Cement Plant, located at 585 Water Street South, in St Marys, Ontario, during the 2024 Calendar Year, operated in compliance with Section 9 of the Environmental Protection Act, and with the conditions of our Environmental Compliance Approval (ECA) with Limited Operational Flexibility (LOF), including the Performance Limits set forth in Condition 4 noting the exception that the facility was within the B1 limit of SO₂ 1 hour for 99.4% of kiln operation.

The facility is currently working with the MECP on the SO₂ abatement action plan.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Pelissero".

Kara Pelissero (she/her/hers)
Environmental Manager

St Marys Cement Plant

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B. Section B - ESDM and AAR Summary Table

This Section addresses Condition 18.1b) of the ECA described as below:

"The Emission Summary Table and Acoustic Assessment Summary Table for the Facility as of December 31 from the previous calendar year".

Acoustic Assessment Summary Table- HGC Engineering

Table A3.1: Acoustic Assessment Summary Table, Non-Emergency Equipment - Existing

Point of Reception	Point of Reception Description	Sound Level at Point of Reception, L_{EQ} [dBA]		Verified by Acoustic Audit	Performance Limit, L_{EQ} [dBA]		Compliance with Performance Limit	
		Day	Night		Day	Night	Day	Night
R1	Two storey home approx. 825 m NE of cement plant	55	53	Yes	50	45	No	No
R4	Two storey home approx. 670 m WW of cement plant	55	54	Yes	50	45	No	No
R5	Two storey home approx. 700 m NW of cement plant	53	52	No	50	45	No	No
VL1	Vacant Lot	58	55	Yes	50	45	No	No
VL2	Vacant Lot (Previously designated as R3)	59	56	Yes	50	45	No	No

Table A3.2: Acoustic Assessment Summary Table, Emergency Equipment

Point of Reception	Point of Reception Description	Sound Level at Point of Reception, L_{EQ} [dBA]	Verified by Acoustic Audit	Performance Limit, L_{EQ} [dBA]	Compliance with Performance Limit
R1	Two storey home approx. 825 m NE of cement plant	19	No	55	Yes
R4	Two storey home approx. 670 m WW of cement plant	30	No	55	Yes
R5	Two storey home approx. 700 m NW of cement plant	9	No	55	Yes
VL1	Vacant Lot	21	No	55	Yes
VL2	Vacant Lot (Previously designated as R3)	15	No	55	Yes

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Emission Summary Table – Ramboll Engineering

Table 1. Emission Summary Table

Contaminant	CAS Number	Total Facility Emission Rate [g/s]	Air Dispersion Model Used	POI Conc. [µg/m³] ⁽¹⁾			MECP Limit						Percentage of MECP POI Limit [%]
				RMON	RMOFF	Maximum	Avg. Period Emission Rate	Avg. Period POI Concentration	Value [µg/m³]	Limiting Effect	ACB Source ⁽²⁾	Category	
Criteria Air Contaminants													
PM	PM	1.30E+01	AERMOD v22112	9.09E+01	9.09E+01	9.09E+01	24 hr	24 hr	120	Visibility	S	B1	75.8%
RCS	14808-60-7	5.41E-01	AERMOD v22112	4.44E+00	4.44E+00	4.44E+00	24 hr	24 hr	5	Health	G	B1	88.8%
Nitrogen Oxides	10102-44-0	4.40E+01	AERMOD v22112	3.46E+02	3.46E+02	3.46E+02	1 hr	1 hr	400	Health	S	B1	86.4%
Nitrogen Oxides	10102-44-0	4.37E+01	AERMOD v22112	2.47E+01	2.45E+01	2.47E+01	24 hr	24 hr	200	Health	S	B1	12.3%
Sulphur Dioxide*	7446-09-5	7.66E+00	AERMOD v22112	6.65E+01	6.65E+01	6.65E+01	1 hr	1 hr	100	Health & Vegetation	S	B1	66.5%
Sulphur Dioxide*	7446-09-5	7.66E+00	AERMOD v22112	4.58E-01	4.58E-01	4.58E-01	Annual	Annual	10	Health & Vegetation	S	B1	4.6%
Carbon Monoxide	630-08-0	1.01E+02	AERMOD v22112	2.32E+02	2.32E+02	2.32E+02	1 hr	0.5 hr	6000	Health	S	B1	3.9%
Hydrogen Chloride	7647-01-0	1.09E+00	AERMOD v22112	2.56E-01	2.65E-01	2.65E-01	24 hr	24 hr	20	Health	S	B1	1.3%
Ammonia	7664-41-7	4.56E-01	AERMOD v22112	1.07E-01	1.11E-01	1.11E-01	24 hr	24 hr	100	Health	S	B1	0.1%
Metals													
Antimony	7440-36-0	2.31E-05	AERMOD v22112	9.00E-05	9.00E-05	9.00E-05	24 hr	24 hr	25	Health	S	B1	<0.1%
Arsenic	7440-38-2	1.51E-04	AERMOD v22112	6.00E-04	6.00E-04	6.00E-04	24 hr	24 hr	0.3	Health	G	B1	0.2%
Barium	7440-39-3	6.81E-03	AERMOD v22112	6.40E-02	6.40E-02	6.40E-02	24 hr	24 hr	10	Health	G	B1	0.6%
Beryllium	7440-41-7	1.63E-05	AERMOD v22112	2.00E-05	2.00E-05	2.00E-05	24 hr	24 hr	0.01	Health	S	B1	0.2%
Cadmium	7440-43-9	5.35E-05	AERMOD v22112	6.00E-05	6.00E-05	6.00E-05	24 hr	24 hr	0.025	Health	S	B1	0.2%
Chromium	7440-47-3	3.04E-03	AERMOD v22112	9.03E-03	9.03E-03	9.03E-03	24 hr	24 hr	0.5	Health	S	B1	1.8%
Cobalt	7440-48-4	1.15E-04	AERMOD v22112	2.80E-04	2.80E-04	2.80E-04	24 hr	24 hr	0.1	Health	G	B1	0.3%
Iron	7439-89-6	2.10E-01	AERMOD v22112	6.24E-01	6.24E-01	6.24E-01	24 hr	24 hr	4	Health & Soiling	S	B1	15.6%
Lead	7439-92-1	2.34E-03	AERMOD v22112	1.75E-02	1.75E-02	1.75E-02	24 hr	24 hr	0.5	Health	S	B1	3.5%
Lead	7439-92-1	2.34E-03	AERMOD v22112	6.74E-03	6.74E-03	6.74E-03	24 hr	30 day	0.2	Health	S	B1	3.4%
Manganese	7439-96-5	1.24E-02	AERMOD v22112	2.10E-02	2.10E-02	2.10E-02	24 hr	24 hr	0.4	Health	S	B1	5.2%
Mercury	7439-97-6	1.30E-03	AERMOD v22112	3.10E-04	3.20E-04	3.20E-04	24 hr	24 hr	2	Health	S	B1	<0.1%
Nickel	7440-02-0	1.36E-03	AERMOD v22112	6.30E-04	6.30E-04	6.30E-04	Annual	Annual	0.04	Health	S	B1	1.6%
Nickel	7440-02-0	1.36E-03	AERMOD v22112	6.30E-04	6.30E-04	6.30E-04	24 hr	Annual	0.4	Health	MECP bulletin	AAV	0.2%
Nickel	7440-02-0	1.36E-03	AERMOD v22112	5.66E-03	5.66E-03	5.66E-03	24 hr	24 hr	2	Health	MECP bulletin	URT/DAV	0.3%
Selenium	7782-49-2	3.85E-04	AERMOD v22112	1.20E-04	1.10E-04	1.20E-04	24 hr	24 hr	10	Health	G	B1	<0.1%
Silver	7440-22-4	2.75E-05	AERMOD v22112	2.00E-05	2.00E-05	2.00E-05	24 hr	24 hr	1	Health	S	B1	<0.1%
Tin	7440-31-5	1.29E-04	AERMOD v22112	1.43E-03	1.43E-03	1.43E-03	24 hr	24 hr	10	Health	S	B1	<0.1%
Vanadium	7440-62-2	1.90E-03	AERMOD v22112	5.08E-03	5.08E-03	5.08E-03	24 hr	24 hr	2	Health	S	B1	0.3%
Volatile Organic Matter													
Benzene	71-43-2	5.50E-01	AERMOD v22112	1.28E-02	1.28E-02	1.28E-02	Annual	Annual	0.45	Health	S	B1	2.8%
Benzene	71-43-2	5.50E-01	AERMOD v22112	1.28E-02	1.28E-02	1.28E-02	24 hr	Annual	4.5	Health	MECP bulletin	AAV	0.3%
Benzene	71-43-2	5.50E-01	AERMOD v22112	1.29E-01	1.34E-01	1.34E-01	24 hr	24 hr	100	Health	MECP bulletin	URT/DAV	0.1%
1,3-Butadiene	106-99-0	0.00E+00	AERMOD v22112	0.00E+00	0.00E+00	0.00E+00	Annual	Annual	2	Health	S	B1	<0.1%
1,3-Butadiene	106-99-0	0.00E+00	AERMOD v22112	0.00E+00	0.00E+00	0.00E+00	24 hr	Annual	20	Health	MECP bulletin	AAV	<0.1%
1,3-Butadiene	106-99-0	0.00E+00	AERMOD v22112	0.00E+00	0.00E+00	0.00E+00	24 hr	24 hr	300	Health	MECP bulletin	URT/DAV	<0.1%
Carbon tetrachloride	56-23-5	1.20E-02	AERMOD v22112	2.81E-03	2.92E-03	2.92E-03	24 hr	24 hr	2.4	Health	S	B1	0.1%
Chloroform	67-66-3	8.10E-03	AERMOD v22112	1.90E-03	1.97E-03	1.97E-03	24 hr	24 hr	1	Health	S	B1	0.2%
Dibromochloromethane	124-48-1	7.10E-03	AERMOD v22112	1.66E-03	1.73E-03	1.73E-03	24 hr	24 hr	0.2	Health	SL-JSL	B2	0.9%
1,2-Dichloroethane	107-06-2	7.04E-03	AERMOD v22112	1.65E-03	1.71E-03	1.71E-03	24 hr	24 hr	2	Health	S	B1	<0.1%
Ethylene dibromide	106-93-4	7.40E-03	AERMOD v22112	1.73E-03	1.80E-03	1.80E-03	24 hr	24 hr	3	Health	G	B1	<0.1%
1,1,1,2-Tetrachloroethane	630-20-6	7.40E-03	AERMOD v22112	1.73E-03	1.80E-03	1.80E-03	24 hr	24 hr	0.5	Health	SL-JSL	B2	0.4%
1,1,2,2-Tetrachloroethane	79-34-5	1.10E-02	AERMOD v22112	2.58E-03	2.68E-03	2.68E-03	24 hr	24 hr	0.1	Health	SL-JSL	B2	2.7%
Vinyl chloride	75-01-4	1.40E-02	AERMOD v22112	3.28E-03	3.40E-03	3.40E-03	24 hr	24 hr	1	Health	S	B1	0.3%
Polycyclic Aromatic Hydrocarbons (PAHs)													
Acenaphthylene	208-96-8	1.80E-03	AERMOD v22112	4.22E-04	4.38E-04	4.38E-04	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	0.4%
Acenaphthene	83-32-9	5.20E-04	AERMOD v22112	1.22E-04	1.26E-04	1.26E-04	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	0.1%
Anthracene	120-12-7	9.40E-04	AERMOD v22112	2.20E-04	2.29E-04	2.29E-04	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	0.2%
Benzo(a)pyrene	50-32-8	3.50E-06	AERMOD v22112	8.16E-08	8.14E-08	8.16E-08	Annual	Annual	0.00001	Health	S	B1	0.8%
Benzo(a)pyrene	50-32-8	3.50E-06	AERMOD v22112	8.16E-08	8.14E-08	8.16E-08	24 hr	Annual	0.0001	Health	MECP bulletin	AAV	<0.1%
Benzo(a)pyrene	50-32-8	3.50E-06	AERMOD v22112	8.21E-07	8.51E-07	8.51E-07	24 hr	24 hr	0.005	Health	MECP bulletin	URT/DAV	<0.1%
Fluoranthene	206-44-0	4.03E-04	AERMOD v22112	9.45E-05	9.80E-05	9.80E-05	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	<0.1%
Fluorene	86-73-7	9.20E-04	AERMOD v22112	2.16E-04	2.24E-04	2.24E-04	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	0.2%
3-Methylnaphthalene	91-67-6	1.50E-02	AERMOD v22112	3.52E-03	3.65E-03	3.65E-03	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	3.6%
1-Methylphenanthrene	832-69-9	1.80E-04	AERMOD v22112	4.22E-05	4.38E-05	4.38E-05	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	<0.1%
Naphthalene	91-20-3	4.30E-02	AERMOD v22112	1.01E-02	1.05E-02	1.05E-02	24 hr	24 hr	22.5	Health	G	B1	<0.1%
Naphthalene	91-20-3	4.30E-02	AERMOD v22112	1.11E-01	1.13E-01	1.13E-01	10 min	10 min	50	Odour	G	B1	0.2%
Phenanthrene	85-01-8	1.71E-03	AERMOD v22112	4.01E-04	4.16E-04	4.16E-04	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	0.4%
Pyrene	129-00-0	2.56E-04	AERMOD v22112	6.00E-05	6.23E-05	6.23E-05	24 hr	24 hr	0.1	-	-	De Minimus Table B-2A	<0.1%

C. Section C – Clinker and Cement Production

This Section addresses Condition 18.1c) of the ECA described as below:

"Clinker and cement production in tonnes per year".

	2024
Clinker	560,460
Cement	718,258

D. Section D – Fuel Rates

This Section addresses Condition 18.1d) of the ECA described as below:

"Maximum daily feed rate and average daily feed rate of Alternative Low-Carbon Fuels and Conventional Fuels in the Cement Kiln for each month of the preceding calendar year, and the weight percentage of each category of Alternative Low-Carbon Fuels approved under Condition 7 of this Approval, of the total monthly Alternative Low-Carbon Fuel used."

As per the ECA "Alternative Low-Carbon Fuels" means a fuel as defined in O. Reg. 79/15 and includes the materials approved under Condition 7 of this Approval;

Condition 7. Approved Alternative Low Carbon Fuels

1. The following Alternative Low-Carbon Fuels are approved for use as a fuel in the Cement Kiln at the Facility:

- a. Material that is biomass fuel derived from harvested plant and forest sources, end of life agricultural sources, Woodwaste or Agricultural Waste, and includes but is not limited to sawdust, wood chips, wood, miscanthus grass, millet, sorghum, hemp, switch grass, and maize;*
- b. Material that is comprised of non-recyclable plastics, including but not limited to manufacturing rejects, material resource recovery facility rejects, plastics bags and packaging;*
- c. Material that is comprised of construction, renovation & demolition waste, including but not limited to scrap wood, treated lumber, carpets, textiles, sawdust, floor laminates and asphalt shingles;*
- d. Material that is comprised of non-recyclable paper fiber/wood/plastic composites, including but not limited to single-serve coffee pods, printed papers, paper towels, rejects and trimmings from paper recycling facilities such as ragger tails (residue including plastic trimmings, staples, paper fibre and metal wire), end rolls and cores; and*
- e. Material that is comprised of rubber (non-tire derived), including but not limited to shredded conveyor belt rubber.*

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As per the ECA "Conventional Fuels" means solid fuels including petroleum coke and coal for regular firing and also includes diesel, propane and natural gas for preheating during start-up;

It is noted in 2024 the following AF were used at the facility;

2024	Alternative Fuel														
	a. Biomass Derived			b. Non-Recycleable plastics			c. Construction, renovation, demolition			d. non recycleable paper fiber / wood / plastic composite			e. Rubber		
	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %	Max Daily Rate tpd	Avg Daily Rate tpd	Weight % Of AFR	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %	Max Daily Rate tpd	Avg Daily Rate tpd	Weight % of AFR	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	8.0	25.0	88.3	0	0	0	1.6	2.9	11.7	0	0	0
June	0	0	0	24.4	55.1	90.7	0	0	0	6.6	13.3	9.3	0	0	0
July	0	0	0	32.0	111.3	85.4	0	0	0	13.5	17.5	14.6	0	0	0
August	0	0	0	29.8	86.8	91.8	0	0	0	7.3	12.1	8.2	0	0	0
September	0	0	0	56.9	96.1	98.4	0	0	0	8.9	12.2	1.6	0	0	0
October	0	0	0	45.9	80.8	77.8	0	0	0	14.5	18.0	22.2	0	0	0
November	0	0	0	29.5	53.9	75.0	0	0	0	9.8	18.0	25.0	0	0	0
December	0	0	0	35.3	56.7	84.6	0	0	0	13.3	56.0	15.4	0	0	0

*assuming same density

2024	Conventional Fuel														
	Petroleum Coke			Coal			Diesel – Preheat			Propane – Preheat			Natural Gas – Preheat*		
	Max Daily Rate tpd	Avg Daily Rate tpd	Thermal Rate %	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %	Max Daily Rate tpd	Avg Daily Rate tpd	Weight %	Max Daily Rate m3	Avg Daily Rate m3	TSR %
January	131.6	171.3	85.9	0	0	0	0	0	0	0	0	0	2811.8	26954.7	14.1
February	143.6	173.6	88.3	0	0	0	0	0	0	0	0	0	921.2	14457.9	11.7
March	144.4	168.2	89.2	0	0	0	0	0	0	0	0	0	0.0	0.0	10.8
April	100.3	158.2	86.2	0	0	0	0	0	0	0	0	0	1677.0	19835.6	13.8
May	169.2	197.2	88.9	0	0	0	0	0	0	0	0	0	1195.6	31915.9	10.5
June	125.6	172.6	78.5	0	0	0	0	0	0	0	0	0	1088.1	15513.0	11.8
July	153.2	177.0	75.3	0	0	0	0	0	0	0	0	0	0.0	0.0	10.2
August	144.4	180.2	75.9	0	0	0	0	0	0	0	0	0	947.6	27810.5	10.0
September	117.0	161.1	65.1	0	0	0	0	0	0	0	0	0	911.8	15501.9	11.9
October	140.4	166.3	72.7	0	0	0	0	0	0	0	0	0	129.6	2101.6	5.3

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November	144.8	184.6	82.4	0	0	0	0	0	0	0	0	0	1206.9	16908.3	4.9
December	144.5	182.2	78.2	0	0	0	0	0	0	0	0	0	1208.6	23881.7	8.6

**The facility uses natural gas at all times not just during preheat.

E. Section E – Thermal Replacement by ALCF

This Section addresses Condition 18.1e) of the ECA described as below:

"Maximum and average percent thermal replacement of Conventional Fuels by combined Alternative Low-Carbon Fuels for each month."

	Maximum TSR % of AFR	Average TSR % of AFR
January	x	x
February	x	x
March	x	x
April	x	x
May	8.5	0.6
June	25.6	9.7
July	42.1	14.5
August	31.2	14.1
September	41.1	23.0
October	35.0	22.0
November	24.7	12.7
December	21.5	13.2

F. Section F – CEM, CPM, Source Testing, and Carbon Dioxide Testing

This Section addresses Condition 18.1f) of the ECA described as below:

"A summary of data from CEM System, CPM System, Source Testing and Carbon Dioxide Emission Intensity testing described under conditions 10.3(a) and (b), 11 and 12 of this Approval, and a description of the status of compliance with the Performance Limits, Alternative Low-Carbon Fuel definition under this Approval and Alternative Low-Carbon Fuels operational requirements described in Schedule E of this Approval."

ECA Condition 10.3. Continuous Monitoring Documentation

- a. *The Company shall prepare and retain on site monthly reports of the data monitored during the preceding month by the CEM System and CPM System, summarizing the following as a minimum:*
- b. *the daily minimum, maximum and average readings for the parameters*
 - i. *specified in condition 10 of this Approval on a monthly basis;*
 - ii. *The percent availability of the CEM System and CPM System for the parameters specified in condition 10 of this Approval on a monthly basis; and*
 - iii. *daily operational status (on/off) of the raw mill and the fuel mill on a monthly basis.*

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Continuous Emissions Monitoring Data Summary

Condition 10.1. Continuous Emissions Monitoring in the Kiln Stack (while the kiln was in operation).

a. The Company shall ensure that the CEM System continuously monitors the following parameters in the exhaust gas stream from the Cement Kiln stack:

- i. Nitrogen Oxides*
- ii. Sulphur Dioxide, and*
- iii. Opacity*

Condition 10.1.a.i NOx

2024	NOx , Daily			
	Avg.	Min.	Max.	Availability
	ppm			Monthly %
January	283	149	438	99.39%
February	298	5	510	88.35%
March	256	143	423	98.52%
April	233	168	310	99.58%
May	283	37	482	98.18%
June	308	118	505	97.14%
July	262	149	418	99.73%
August	248	67	377	96.77%
September	274	1	412	89.16%
October	215	102	331	86.64
November	275	0	484	97.98%
December	354	1	476	99.86%

Condition 10.1.a.ii SO2

2024	SO2, Daily			
	Avg.	Min.	Max.	Availability
	ppm			Monthly %
January	72.3	20.3	227.8	99.39%
February	64.6	0.5	150.8	88.03%
March	94.6	31.8	165.7	98.52%
April	136.8	0.2	251.2	99.58%
May	180.7	73.3	294.7	99.44%
June	167.9	27.2	444.5*	99.85%
July	210.0	103.5	310.8	99.73%
August	211.2	78.7	283.4	96.77%
September	178.0	2.0	301.1	86.42%
October	187	101.1	251.8	90.69%

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November	80.94	0	209.6	97.98%
December	109.9	240.3	6.0	99.86%

* Maximum daily value noted in June was on a day that the kiln only ran for 2 hours.

Condition 10.1.a.iii Opacity

2024	Opacity, Daily			
	Avg.	Min.	Max.	Availability
	%			Monthly %
January	4.21	0	11.92	100.00
February	9.88	0.93	16.96	100.00
March	11.70	7.18	16.60	98.52%
April	10.07	0.19	10.07	99.85
May	1.41	0.63	4.22	100.00
June	1.75	0.60	3.47	99.85%
July	2.72	1.99	4.16	91.51%
August	4.19	2.70	6.00	97.51%
September	3.35	1.91	9.94	100%
October	4.31	2.53	8.50	81.11%
November	3.81	1.55	7.90	88.15%
December	5.34	0.24	9.34	94.59%

Continuous Process Monitoring Data Summary

This Section addresses Condition 10.2 of the ECA described as below: (while the kiln is in operation)

10.2 Continuous Monitoring of Process Conditions

a. The Company shall install, operate, and maintain a CPM System to continuously monitor:

- i. residual oxygen at locations specified in Schedule F;*
- ii. carbon monoxide in the preheater tower;*
- iii. temperature of gases in the preheater tower, as specified in Schedule F and correspond with a retention time of not less than 10 seconds;*
- iv. pressure at locations specified in Schedule F; and,*
- v. Total Hydrocarbon (as methane) in the gases leaving the Cement Kiln stack.*

Condition 10.2.ii Stage 1 Oxygen

2024	Stage 1 - O2			
	Avg.	Min.	Max.	Availability
	%			%
January	5.13	2.03	6.55	99.8

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February	5.10	2.23	6.80	100
March	4.82	3.70	6.84	100
April	3.70	0.09	5.04	100
May	4.43	3.56	5.96	100
June	5.26	1.08	7.97	100
July	5.21	4.19	6.47	100
August	4.99	3.76	6.74	100
September	4.74	2.49	5.67	100
October	6.09	4.37	7.85	100
November	6.45	3.79	9.93	100
December	6.38	4.46	12.37	100

Schedule F of the ECA requires Oxygen to be maintained over 1% in Stage 1 during ALCF introduction.

Condition 10.2.ii Carbon Monoxide in the Preheat Tower

2024	Carbon Monoxide in the Preheat Tower			
	Avg.	Min.	Max.	Availability
	ppm			%
January	2535.02	1748.26	3596.72	99.80
February	2575.67	1610.28	4054.35	100
March	2790.18	1663.14	4116.72	100
April	3134.92	1936.52	4388.34	100
May	2860.52	2015.53	3746.58	99.85
June	2377.92	1110.55	4085.30	99.85
July	2763.77	1658.79	4912.89	100
August	3415.66	2042.41	4577.76	100
September	3170.92	2441.59	4110.23	100
October	2789.49	1280.95	4823.74	100
November	2166.45	989.71	3509.55	100
December	2108.30	1077.17	3533.02	100

Condition 10.2.iii Temperature of gases in the preheat tower

	Temperature – Riser				Temperature - Burner			
	Avg.	Min.	Max.	Availability	Avg.	Min.	Max.	Availability
	C			%	C			%
January	978.37	485.89	1086.08	99.8	1427.44	1292.51	1533.99	98.8
February	844.88	399.44	1001.29	100	1442.26	1371.76	1512.56	99.8
March	815.42	792.29	847.15	100	1462.52	1383.76	1516.03	100

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April	750.59	360.88	924.19	100	1433.95	1327.11	1467.02	100
May	829.37	783.73	1040.72	98.8	1338.18	1180.11	1401.45	99
June	862.34	243.54	1030.28	100	1331.98	1162.46	1410.08	100
July	861.42	813.50	1059.13	99.86	1346.15	1246.89	1422.33	100
August	971.63	582.87	1083.40	99.7	1324.29	1278.96	1370.38	100
September	888.86	765.37	1061.62	100	1344.03	1287.88	1388.63	100
October	818.80	800.47	835.40	99.73	1308.01	1206.51	1373.58	100
November	962.08	611.97	1055.91	100	1306.58	1196.82	1407.12	100
December	908.19	801.99	1060.79	100	1279.98	1143.61	1365.45	100

Schedule F of the ECA requires Temperature in the riser to be maintained over 750C in Stage 1 during ALCF introduction. ALCF were not used in 2024.

Condition 10.2.iv Pressure at Locations specified

	Pressure – Stage 1				Pressure – Riser (Kiln Inlet)			
	Avg.	Min.	Max.	Availability	Avg.	Min.	Max.	Availability
	Psi			%	Psi			%
January	-304.09	-379.48	-89.34	99.2	-6.21	-13.83	-0.52	97
February	-306.47	-369.93	-97.39	97.3	-7.78	-16.90	0.00	98
March	-352.02	-457.03	-200.79	100	-5.65	-15.23	0.02	100
April	-401.69	-544.37	-111.86	94.2	-6.73	-19.18	-0.33	100
May	-362.38	-430.86	-266.88	99.7	-16.60	-35.23	-3.12	97
June	-359.80	-523.39	-7.74	100	-15.36	-30.89	0.00	100
July	-416.54	-496.90	-323.87	100	-14.34	-23.41	-7.44	100
August	-316.57	-585.08	-108.40	99.7	-12.77	-21.37	-2.27	100
September	-395.72	-470.85	-156.92	100	-9.26	-17.30	-0.86	100
October	-370.88	-420.24	-308.12	100	-16.03	-26.08	-5.50	100
November	-339.60	-411.21	-111.94	100	-13.76	-25.00	-3.92	100
December	-285.56	-373.74	-198.29	100	-10.12	-19.40	0.00	100

Schedule F of the ECA requires negative pressure to be maintained over 750C in Stage 1 during ALCF introduction. ALCF were not used in 2024.

Condition 10.2.iv Pressure at Locations specified (continued)

	Pressure – Kiln Hood				Pressure – Raw Mill			
	Avg.	Min.	Max.	Availability	Avg.	Min.	Max.	Availability
	Psi			%	psi			%
January	-4.13	-4.93	-3.99	97	-59.27	-98.15	-8.89	96.7
February	-4.07	-4.79	-3.99	100	-27.17	-59.52	-5.30	95.5

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March	-4.01	-4.04	-3.98	100	-34.61	-66.32	-12.39	95.2
April	-4.24	-5.06	-3.99	100	-24.52	-62.31	-10.25	98.1
May	-3.31	-5.05	-3.00	100	-18.36	-62.99	14.86	88.1
June	-3.07	-3.70	-2.98	100	-34.43	-64.35	-12.95	100
July	-3.02	-3.13	-2.92	100	-28.73	-51.87	-16.04	100
August	-4.66	-5.07	-2.96	100	-24.89	-72.76	2.94	100
September	-4.56	-5.10	-3.49	100	-36.62	-49.40	-16.50	100
October	-3.21	-3.64	-2.48	100	-23.09	-47.63	-10.52	100
November	-2.73	-5.08	-2.48	100	-33.10	-57.82	-4.65	100
December	-2.55	-3.53	-2.49	100	-20.23	-37.38	1.28	100

Schedule F of the ECA requires negative pressure to be maintained in Stage 1 during ALCF introduction. ALCF were not used in 2024.

Condition 10.2.v Total Hydrocarbons

2024	THC Emissions in the Main Stack			
	Avg.	Min.	Max.	Availability
	%			%
January	n/a	n/a	n/a	n/a
February	n/a	n/a	n/a	n/a
March	n/a	n/a	n/a	n/a
April	181.88	0.00	456.08	57
May	231.11	13.19	336.98	81
June	90.13	13.02	206.31	64
July	251.01	0.00	399.35	89
August	77.20	55.93	111.15	100
September	83.08	48.81	114.79	100
October	40.78	14.90	81.95	100
November	6.21	0.00	41.81	100
December	0.00	0.00	0.00	0

Condition 10.3.a.iii Daily operational status (on/off) of the raw mill and the fuel mill on a monthly basis.

The raw mill, fuel mill – petcoke, and fuel mill – Alternative Low Carbon Fuels operate intermittently throughout the day based on production needs. The following table outlines equipment runtime during the month.

	Equipment Runtime				
	Month Hours	Kiln	Raw Mill	Fuel Mill – Petcoke	Fuel Mill- ALCF
	Hours	Hours	Hours	Hours	Hours

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January	744	488.5	382	281	0
February	696	600.3	505	338	0
March	744	743.0	619	410	1
April	720	208.1	172	112	0
May	744	689.8	559	433	59
June	720	650.8	530	362	437
July	744	740.6	593	444	667
August	744	662.8	556	387	554
September	720	637	519	324	545
October	744	741	606	402	696
November	720	621	482	374	541
December	744	674	545	413	618

Compliance Source Testing Data Summary

Condition 11.1 of the ECA notes

- The Company shall perform Source Testing in accordance with the procedure in Schedule G to determine the rate of emission of the test contaminants from the sources specified in Schedule H. Source Testing shall be conducted not later than twelve (12) months from the date of commencement of operation of the Alternative Low-Carbon Fuels feed equipment which permits the use of Alternative Low-Carbon Fuels up to 175 tonnes per day, or within a time frame as directed or agreed to in writing by the District Manager.*

Alternative Low Carbon Fuels were not used on site until May 2024. Source Testing is therefore required within 12 months of commencement of operation of the ALCF equipment, as per the ECA. Source Testing is required to be complete prior to May 2025.

Carbon Dioxide Intensity Testing Data Summary

Condition 12.1 of the ECA notes

- The Company shall perform Carbon-Dioxide Emission Intensity testing of the representative samples of the Alternative Low-Carbon Fuels and Conventional Fuels at all times when Source Testing is carried out under Condition 11 of this Approval. Representative samples of the Alternative Low-Carbon Fuels and Conventional Fuels used during the Source Testing events shall be used for performing Carbon-Dioxide Emission Intensity testing. The Carbon-Dioxide Emission Intensity testing shall be carried out in accordance with the requirements set out in O. Reg. 79/15.*

Alternative Low Carbon Fuels were not used on site until May 2024. Source Testing is therefore required within 12 months of commencement of operation of the ALCF equipment, as per the ECA. Source Testing is required to be complete prior to May 2025 and the Carbon Dioxide Intensity testing required during Source Testing will be conducted at this time as required by the ECA.

G. Section G – Operational Events

This Section addresses Condition 18.1g) of the ECA described as below:

"A summary of dates, duration and reasons for any operational events including but not limited to events described in condition 8.7 of this Approval that may have negatively impacted the quality of the environment and corrective measures taken to address these impacts,"

Condition 8.7 of the ECA Notes

Condition 8.7. The introduction of Alternative Low-Carbon Fuels in the Cement Kiln shall be stopped (following appropriate procedures) if:

- a. the temperature, residual oxygen or pressure as measured by the CPM System do not meet*
- b. the operational requirements outlined in Schedule F of this Approval for more than four (4) consecutive hours; or*
- c. the CPM System for one or more of the parameters specified in condition 8.7 are down or malfunctioning for more than four (4) consecutive hours.*

No events occurred in 2024 where the CPM parameters of temperature, residual oxygen, or pressure were not met during the use of ALCF.

H. Section H – Complaints

This Section addresses Condition 18.1h) of the ECA described as below:

"Details of environmental complaints including a summary of complaints received, causes of complaints and action taken to avoid the recurrence of similar incidents, as described in condition 14 of this Approval."

Odour Complaints 2024		
Date	Summary of Complaint	Response/ Actions Taken and Conclusions
July 21	SMC received a complaint from a resident who noted odour in East St Marys at 10:30am.	SMC modelled the complaint using the Enviro-Suite software. Modeling showed the complaint likely originated from St Marys Cement. The facility will continue to implement the Odour Abatement Plan.
July 23	SMC received a complaint from a resident who noted odour in East St Marys at 9:30am.	SMC modelled the complaint using the Enviro-Suite software. Modeling showed the complaint likely originated from St Marys Cement. The facility will continue to implement the Odour Abatement Plan.
August 10	SMC received a complaint from a resident who noted odour in East St Marys between 8:30 and 9am.	SMC modelled the complaint using the Enviro-Suite software. Modeling showed the complaint likely originated from St Marys Cement. The facility will continue to implement the Odour Abatement Plan.
November 11	SMC received a complaint from a resident who noted odour in East St Marys at 11:15am.	SMC modelled the complaint using the Enviro-Suite software. Modeling showed the complaint likely originated from St Marys Cement. The facility will continue to implement the Odour Abatement Plan.

Dust Complaints 2024		
Date	Summary of Complaint	Response/ Actions Taken and Conclusions
February	SMC received a complaint from a	Analysis of the sample indicated material that could

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21	resident north of the plant who noted dust had appeared during the afternoon.	have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
March 4	SMC received a complaint from a resident north of the plant who noted dust had appeared during the afternoon.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
April 8	SMC received a complaint from a resident northeast of the plant who noted dust had appeared overnight.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
April 12	SMC received a complaint from a resident north of the plant who noted dust had appeared during the last few years.	The resident noted the material had settled over the past 9 years, so no sample was able to be taken.
April 23	SMC received a complaint from a resident north of the plant who noted dust had appeared during the past week.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
May 23	SMC received a complaint from a resident northeast of the plant who noted dust had appeared overnight.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
July 25	SMC received a complaint from a resident northeast of the plant who noted dust had appeared overnight.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
July 26	SMC received a complaint from a resident southwest of the plant who noted dust had appeared overnight.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
July 29	SMC received a complaint from a resident north of the plant who noted dust had appeared during the morning.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
August 12	SMC received a complaint from a resident north of the plant who noted dust had appeared during the weekend.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
September 5	SMC received a complaint from a resident north of the plant who noted dust had appeared during	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a

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	the weekend.	material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
September 12	SMC received a complaint from a resident northeast of the plant who noted dust had appeared during the past few weeks.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
September 16	SMC received a complaint from a resident southwest of the plant who noted dust had appeared during the past week.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
October 21	SMC received a complaint from a resident north of the plant who noted dust had appeared during the morning.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
October 21	SMC received a complaint from a resident north of the plant who noted dust had appeared during the morning.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
October 22	SMC received a complaint from a resident north of the plant who noted dust had appeared during the past months.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
October 28	SMC received a complaint from a resident north of the plant who noted dust had appeared during the morning.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.
October 28	SMC received a complaint from a resident northeast of the plant who noted dust had appeared during the past week.	Analysis of the sample taken indicated material that did not originate from the facility. No action was required.
October 30	SMC received a complaint from a resident northeast of the plant who noted dust had appeared during the past few weeks.	No sample was able to be taken as there was insufficient material on the vehicle.
November 4	SMC received a complaint from a resident north of the plant who noted dust had appeared during the morning.	Analysis of the sample indicated material that could have originated at St Marys Cement. The facility determine that the material originated from a material loadout point. The facility performed maintenance on the equipment and initiated a project for maintenance improvements including boosting dust control measures already in place.

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December 17	SMC received a complaint from a resident north of the plant who noted dust had appeared during the past few months.	No sample was able to be taken as there was insufficient material on the vehicle. The material noted by the resident appeared to be a paint defect.
December 30	SMC received a complaint from a resident southwest of the plant who noted dust had appeared during the past month.	No sample was able to be taken as there was insufficient material on the vehicle.

Noise/Blast Complaints 2024		
Date	Summary of Complaint	Response/ Actions Taken and Conclusions
Various throughout January and February	SMC received a complaint from a resident who noted continuous noise at her residence on the North side of St Marys.	Previous investigations at the residence did not observe high levels of noise. In addition due to the lack of correlation between higher noise noted and abnormal operation at the plant, SMC was unable to determine whether the source of the noise causing concern originated at SMC
February 25 and 26	SMC received a complaint from a resident who noted loud rumblings throughout the nights of February 25 and 26 th .	Due to the lack of correlation between higher noise noted and abnormal operation at the plant, SMC was unable to determine whether the source of the noise causing concern originated at SMC. However it was noted that the distance likely indicated the complaint did not.
November 16	SMC received a blast complaint after the blast at 12pm.	The low ceiling on November 16 th might have caused the air vibration to feel stronger at the residence, however the seismograph readings indicate measurements were within MECP limits as per NPC-119.

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