

O2E Inc. Environmental Consultants London, Ontario, Canada

Ph: 519.633.2400 Fx: 519.633.2700 www.o2e.ca

WEBER MANUFACTURING TECHNOLOGIES INC.

16566 HIGHWAY #12, MIDLAND, ONTARIO L4R 4L1

ANNUAL ENVIRONMENTAL REPORTING 2023

REPORT PREPARED BY: *O2E Inc.*

REPORT PREPARED FOR: WEBER MANUFACTURING TECHNOLOGIES INC.

JUNE 3, 2024

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Fx: 519.633.2700 www.o2e.ca



June 3, 2024

Mr. Chris Holsgrove Weber Manufacturing Technologies Inc. 16566 Highway #12 P.O. Box 399 Midland, Ontario L4R 4L1

Re: Annual Environmental Reporting

Weber Manufacturing Technologies Inc.

O2E Reference #24-040

Delivery

Dear Chris:

Weber Manufacturing Technologies Inc. (Weber) retained O2E Inc. (O2E) to collect site information, perform calculations and prepare the annual report required by Environment and Climate Change Canada (ECCC) under the National Pollutant Release Inventory (NPRI) and Greenhouse Gas (GHG) reporting program for the Weber Manufacturing and NVD facilities in Midland. This letter summarizes the reportable releases for these annual requirements.

CHANGES TO REPORTABLE SUBSTANCES AND REPORTING REQUIREMENTS

There were no changes made to the NPRI substance list and reporting requirements for the 2023 reporting year.

RESULTS

The results of the assessment show that the Manufacturing facility is not required to report to ECCC under the requirements of the NPRI. Supporting information for the determination of contaminant emission estimates and threshold comparisons is presented in **Attachment 1** and includes such items as production inputs, emission calculations, operating hours, etc. A summary of the contaminants included in the assessment for this year is presented in the following table.

Chris Holsgrove

Weber Manufacturing Technologies Inc.

Table 1: Reportable Contaminants for Year 2023 – NVD Facility

		NPRI Release Report Entry - Tonnes								
Contaminant	CAS	P	\ir	Water	Disposal	Posvelo				
		Point	Fugitive	water	Disposai	Recycle				
Nickel (and its compounds)	NA – 06	0.012	NA	0.000	0.000	4.599				

A summary of the facility's annual production information is provided in **Attachment 1**. The confirmation notice and report summary are attached to this report in **Attachment 2**.

Variations in the reported quantities are noted in the amount of nickel used, contained in product and recycled. These variations are due to a decrease in the NVD Facility's production levels during the reporting period when compared with the previous reporting period as well as a reduction in the quantity of off-specification materials sent for recycling.

NPRI REPORTING

The 2023 reporting for the NVD facility was completed on-line using the web based Single Window Information Manager (SWIM) portal. The reports were submitted to the appropriate agencies on June 3, 2024. A copy of the submission for the NVD facility has been provided in **Attachment 3**. The report can also be viewed through the SWIM website. Report certification was completed electronically when the report was submitted on the above noted date.

GREENHOUSE GAS EMISSIONS REPORTING

ECCC Methodology

An assessment of greenhouse gas emissions was completed for the facility. The assessment was based on quantities of fossil fuels burned in the previous calendar year for stationary and mobile equipment. In order to calculate emissions of greenhouse gases from fossil fuel combustion, the quantity of each fuel used was multiplied by the applicable ECCC emission factor to arrive at an annual emission of the three main greenhouse gases produced from fossil fuel combustion: Carbon Dioxide (CO_2), Nitrous Oxide (N_2O) and Methane (CO_2). All calculations for fuel combustion were completed in accordance with the guidance provided by ECCC in their document entitled "Greenhouse Gas Reporting Program — Canada's Greenhouse Gas Quantification Requirements Version 6.0" dated December 2022, specifically Chapter 2 — Quantification Methods for Fuel Combustion and Flaring. The following equations from the aforementioned documents were used to calculate releases of greenhouse gases from the fuels used at the site:

- Carbon dioxide emissions from fossil fuels (except natural gas) and biomass:
 - Equation 2-2: Volume or Mass based Non-Variable Fuels Equation
- Carbon dioxide emissions from natural gas:
 - Equation 2-9: Carbon Dioxide High Heat Value Method
- Methane and nitrous oxide emissions from natural gas:

Chris Holsgrove

Weber Manufacturing Technologies Inc.

- Equation 2-12: CH₄ and N₂O High Heat Value Methods, in Energy Units
- Methane and nitrous oxide emissions from fossil and biomass fuels:
 - Equation 2-13: CH₄ and N₂O High Heat Value Methods, in Physical Units

MECP Methodology

Calculations of CO_2e releases from stationary combustion sources and onsite transportation are based on the standard quantification methods listed in the MECP document entitled "Guideline for Quantification, Reporting and Verification of Greenhouse Gas Emissions – March 2024", specifically Appendix 11 - ON.20 Fuel Combustion and Flaring. Note that the MECP has referenced the standard quantification methods published by ECCC in their guidance document, including the use of the IPPC Fifth Assessment Report Global Warming Potentials and greenhouse gas emissions from on-site transportation sources.

Summary of Emission Factors and Equations

Emission factors and equations used to calculate releases of greenhouse gases from the various fuels used by the facility were obtained from the ECCC document entitled "Greenhouse Gas Reporting Program – Canada's Greenhouse Gas Quantification Requirements – Version 60" dated December 2022 and are summarized below.

Table 2: Summary of Emission Factors

Fuel Type	CO ₂	CH ₄	N ₂ O
Natural Gas	1956.38 g/m ³	0.98 g/GJ	0.87 g/GJ
Diesel (mobile)	2,681 g/L	0.073 g/L	0.02 g/L
Propane (mobile)	1515 g/L	0.024 g/L	0.108 g/L

Equation 2-2: Volume or Mass based Non-Variable Fuels Equation (CO₂)

$$CO_{2i} = \sum_{p=1}^{n} Fuel_{ip} \times EF_{2i} \times 10^{-6}$$

Where:

CO_{2i} = Annual mass of CO₂ emissions for a specific fuel type "i" (tonnes)

n = Number of measurement periods for the calendar year

Fuel_{ip} = Mass or volume of fuel type "i" combusted in measurement or delivery period "p" (mass in tonnes for solid fuel, volume in kilolitres for liquid fuel or volume in cubic meters, at 15°C and 101.325 kPa, for gaseous fuel)

EF_{2i} = Fuel type "i" specific CO2 emission factors

10⁻⁶ = Conversion factor from grams to metric tonnes.

Chris Holsgrove

Weber Manufacturing Technologies Inc.

Equation 2-9: Natural Gas (Variable Fuels Method)

$$CO_{2NG} = \sum_{p=1}^{n} Fuel_p \times (Slope \times HHV_p - Intercept) \times 10^{-6}$$

Where:

CO_{2i} = Annual mass of CO₂ emissions from natural gas (tonnes)

n = Number of fuel heat content measurement periods for the calendar year

Fuel_{ip} = Volume of natural gas fuel combusted during measurement period "p" (cubic meters at 15°C and 101.325 kPa), as specified in Sections 2.C.1 and 2.C.2.

 HHV_p = High heat value of natural gas for the measurement period "p" (MJ/cubic meter, at 15°C and 101.325 kPa), as specified in Sections 2.C.1 and 2.C.3.

(Slope × HHV p – Intercept)

= Empirical equation (g of CO_2 /cubic meter of natural gas) representing a very close relationship between carbon dioxide and volume of natural gas determined from composition data of a large discrete set of available data, in this case, Slope = 66.20 and Intercept = 617.7

10⁻⁶ = Conversion factor from grams to metric tonnes.

Equation 2-12: CH₄ and N₂O High Heat Value Methods, in Energy Units

$$\textit{CH}_{4i} \ or \ \textit{N}_{2}\textit{O}_{i} = \sum_{p=1}^{n} \textit{Fuel}_{ip} \times \textit{HHV}_{ip} \times 10^{-3} \times \textit{EF}_{i} \times 10^{-6}$$

Where:

CH_{4i} or N₂O_i = Annual mass of CH₄ or N₂O emissions for fuel type "i", tonnes per year

n = Number of measurement periods for the calendar year

Fuel_{ip} = Mass or volume of fuel type "i" combusted in measurement or delivery period

"p" (mass in tonnes for solid fuel, volume in kilolitres for liquid fuel or volume in

cubic meters, at 15°C and 101.325 kPa, for gaseous fuel)

HHV_{ip} = High heat value measured directly or provided by the fuel supplier for the

measurement period "p" of fuel type "i" (MJ per tonne for solid fuel, MJ per kilolitre for liquid fuel, or MJ per cubic meter, at 15°C and 101.325 kPa, for

gaseous fuel)

EF_i = Fuel type "i" specific CH₄ or N₂O emission factors in energy units

10⁻⁶ = Conversion factor from grams to metric tonnes. 10⁻³ = Conversion factor from megajoules to gigajoules.

Chris Holsgrove

Weber Manufacturing Technologies Inc.

Equation 2-13: CH₄ and N₂O High Heat Value Methods, in Physical Units

$$CH_{4i} \ or \ N_2O_i = \sum_{p=1}^n Fuel_{ip} \times EF_i \times 10^{-6}$$

Where:

CH_{4i} or N₂O_i = Annual mass of CH₄ or N₂O emissions for fuel type "i", tonnes per year

n = Number of measurement periods for the calendar year

Fuel_{ip} = Mass or volume of fuel type "i" combusted in measurement or delivery period

"p" (mass in tonnes for solid fuel, volume in kilolitres for liquid fuel or volume in

cubic meters, at 15°C and 101.325 kPa, for gaseous fuel)

 EF_{2i} = Fuel type "i" specific CH_4 or N_2O emission factors 10⁻⁶ = Conversion factor from grams to metric tonnes.

RESULTS - ECCC and MECP

A summary of the reportable contaminants as carbon dioxide equivalents (CO_{2e}) for the reporting period is presented in the following table. Facility operations included in the assessment consist of stationary combustion equipment and on-site transportation equipment. Supporting information for emission estimates is presented in **Appendix 4** and includes such items as production inputs, emission calculations, etc.

Table 3A: Summary of CO₂e Emissions – Threshold 10,000 tonnes – Manufacturing Facility

Parameter	Releases (tonnes)	GWP	CO₂e (tonnes)
Carbon Dioxide	1,087.745	1	1,087.745
Methane	0.021	28	0.593
Nitrous Oxide	0.019	265	4.984
Total	NA	NA	1,093.322

Table 3B: Summary of CO₂e Emissions – Threshold 10,000 tonnes – NVD Facility

Parameter	Releases	GWP	CO₂e
	(tonnes)		(tonnes)
Carbon Dioxide	2,393.278	1	2,393.278
Methane	0.047	28	1.305
Nitrous Oxide	0.041	265	10.983
Total	NA	NA	2,405.566

The current ECCC/MECP greenhouse gas reporting threshold is 10,000 metric tonnes. As such, the facilities are not required to report under either the ECCC or MECP Greenhouse Gas Reporting programs.

Chris Holsgrove

Weber Manufacturing Technologies Inc.

CLOSING

Please feel free to contact us with any questions or comments that you may have with respect to this report.

Sincerely,

O2E Inc. Environmental Consultants

Tim Logan President

ATTACHMENT 1 NPRI/TRA SUPPORTING CALCULATIONS

May 28, 2024

Chris Holsgrove
Weber Manufacturing Technologies Inc.
16566 Highway #12
P.O. Box 399
Midland, Ontario
L4R 4L1

Re: Annual Environmental Reporting

O2E Reference #23-032

Dear Chris:

In order to begin the calculations of material releases from your facilities we have prepared the following information request. The request is based on information you have provided in the past for your previous annual submissions. We have included the information presented last year for reference purposes. Please indicate any changes to the information presented, if the information has not changed, feel free to leave the cell blank.

Information Required for Weber Manufacturing

Item	2022 Information	2023 Information
Public Contact	Chris Edwards	Chris Edwards
Technical Contact	Chris Holsgrove	Chris Holsgrove
Number of Employees	242	217
Changes to plant process equipment	None	Added 1 SMC Mold Press
Welding wire used	487 Kg	454Kg
Natural gas used	494,000 m3	556,000m3
Propane used		
Average number of trucks per day	9	9
Operating hours per week	100	96
Scrap steel recycled (Del Sauniers)	264,002 lbs.	140,322 lbs
Aluminum recycled (Del Sauniers)	66,711 lbs.	34,083 lbs
Waste oils – Safety-Kleen – disposal 251L	6,982 L	4100 L
Waste oils – Safety-Kleen – disposal 232 L	2405 L	0
Waste oils – Safety-Kleen – disposal 252L	7,667 L	750L
Graphic Arts Waste – Safety-Kleen – Disposal 265L	209 L	0
Graphic Arts Waste – Safety-Kleen – Disposal	0	0
Paint/Pigment/Coating Residues – Safety-Kleen – Disposal 145I	1,025 L	641L
Paint/Pigment/Coating Residues – Safety-Kleen – Disposal	0	0
Waste Coolant 253L – Terrapure –disposal	0	4138 L
Silver Solder	109.09 Kg	218

Weber Manufacturing Technologies Inc.

Information Required for NVD Plant

Item	2022 Information	2023 Information
Public Contact	Chris Edwards	Chris Edwards
Technical Contact	Chris Holsgrove	Chris Holsgrove
Number of Employees	21	21
Changes to plant process equipment	None	None
Natural gas consumption	1,154,210 m3	1,222,728 m3
Propane used	35 cylinders	27 cylinders
Average number of trucks per day	1	1
Operating hours per week	168	168
Scrap nickel recycled	13,362 lbs	10,139.07 lbs
Total nickel produced	71,125 kg	67,600Kg

Please feel free to contact us if you have any questions regarding the information required.

Sincerely,

O2E INC. ENVIRONMENTAL CONSULTANTS

Tim Logan President

Weber Manufacturing NPRI Combustion Calculations

2023 Calender Year

Sources:

AP-42 Chapter 1.3 Fuel Oil Combustion, September 1998 AP-42 Chapter 1.4 Natural Gas Combustion, July 1998

Table 1: Emission Factors for Each Contaminant

	Units	NO _x	СО	PM	PM ₁₀	PM _{2.5}	SO ₂	Methane	VOC	N ₂ O
Natural Gas	$kg/10^6 m^3$	1600	1344	30.4	30.4	30.4	9.6	36.8	88	35.2
# 2 Fuel Oil	kg/10 ³ L	2.4	0.6	0.24	0.1296	0.0996	8.52	0.02592	0.06672	0.0132

Note: Emission factors for Boilers < 100 million BTU/hr (SCC 1-02-005-02/03)

Table 2: Emission Calculations for Each Contaminant based on actual usage (annual)

Annual Gas Consumption	Annual #2 Fuel Oil Consumption	NO _x	со	PM	PM ₁₀	PM _{2.5}	SO ₂	Methane	voc	N ₂ O
(cubic meters)	(Litres)	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year
556,000		890	747	17	17	17	5	20	49	20

Annual Gas Consumption Calender Year (cubic metres)

Total 556,000

Recycled Metals	2022	
Scrap steel	140,322 lbs	Main constituent (Iron) is not listed under NPRI
Aluminum	34,038 lbs	reportable to NPRI as fume or dust only
Copper	0 lbs	Low copper alloy - NPRI threshold for Copper (and its compounds) is 10,000 kg annually
MPO Amounts		
Silver Solder	218 kg	NPRI threshold for Silver (and its compounds) is 10,000 kg annually.

Class	Quantity (L)	Receiver
252L	750	Safety Kleen
232L	0	Safety Kleen
253L	0	Safety Kleen
251L	4,100	Safety Kleen
2651	0	Safety Kleen
265L	0	Safety Kleen
1451	641	Safety Kleen
145L	0	Safety Kleen

Contaminant	CAS	Amount in Waste Oil (%)	Annual Quantity Used kg	Annual Releases kg/yr	Reporting Threshold kg/yr	Reportable?	Reportable Emissions kg/yr	Part 5 Threshold	Part 5 Reportable ?	Part 5 Reportable Emissions kg/yr
										_

Speciation data is not available for the wastes shipped off-site. The waste oils and coolant are a mixture of oils and water.

Manufacturing Report Summary

Part 4 Release Threshold Assessment

Contaminant	CAS	Annual Emissions kg/yr	Reporting Threshold	Reportable?	Reportable Emissions kg
Oxides of Nitrogen	11104-93-1	890	20,000	No	NA
Carbon Monoxide	630-08-0	747	20,000	No	NA
Particulate Matter	NA - M08	17	20,000	No	NA
Inhalable Particulate Matter (PM10)	NA - M09	17	500	No	NA
Respirable Particulate Matter (PM2.5)	NA - M10	17	300	No	NA
Sulphur Dioxide	7446-09-5	5	20,000	No	NA
VOC - including process	NA - M16	49	10,000	No	NA

NVD Plant NPRI Combustion Calculations

2023 Calender Year

Sources:

AP-42 Chapter 1.3 Fuel Oil Combustion, September 1998 AP-42 Chapter 1.4 Natural Gas Combustion, July 1998

Table 1: Emission Factors for Each Contaminant

	Units	NO _X	СО	PM	PM ₁₀	PM _{2.5}	SO ₂	Methane	VOC	N ₂ O
Natural Gas	$kg/10^6 m^3$	1600	1344	30.4	30.4	30.4	9.6	36.8	88	35.2
# 2 Fuel Oil	kg/10 ³ L	2.4	0.6	0.24	0.1296	0.0996	8.52	0.02592	0.06672	0.0132

Note: Emission factors for Boilers < 100 million BTU/hr (SCC 1-02-005-02/03)

Table 2: Emission Calculations for Each Contaminant based on actual usage (annual)

Annual Gas Consumption	Annual #2 Fuel Oil Consumption	NO _x	со	PM	PM ₁₀	PM _{2.5}	SO ₂	Methane	voc	N ₂ O
(cubic meters)	(Litres)	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year	kg/year
1,222,728		1,956	1,643	37	37	37	12	45	108	43

Annual Gas Consumption Calender Year (cubic metres)

Total 1,222,728

Process Emission Calculations

Operating hours	168	per week				
	50					
	8,400					
Nickel Emission rate (source testing)	0.000397	g/s				
Nickel Produced	67,600	kg				
	67.600	tonnes				
Nickel Recycled	10,139.1	lbs				
	4,599.0 kg					
		MPO Threshold	Reportable?			
Part 1A	NA - 11	10	Yes			

Total nickel MPO 72.2110 tonnes

NVD Report Summary

Part 4 Release Threshold Assessment

Contaminant	CAS	Annual Emissions kg/yr	Reporting Threshold	Reportable?	Reportable Emissions kg
Oxides of Nitrogen	11104-93-1	1,956	20,000	No	NA
Carbon Monoxide	630-08-0	1,643	20,000	No	NA
Particulate Matter	NA - M08	37	20,000	No	NA
Inhalable Particulate Matter (PM10)	NA - M09	37	500	No	NA
Respirable Particulate Matter (PM2.5)	NA - M10	37	300	No	NA
Sulphur Dioxide	7446-09-5	12	20,000	No	NA
VOC - including process	NA - M16	108	10,000	No	NA

Part 1A - Reportable Summary - Quantities in Mg

Contaminant	CAS	NPRI	NPRI Part 5		Annual Release	Report Entry	
Contaminant	CAS	Reportable?	Reportable?	Air	Water	Land	
						Disposal	Recycle
Nickel	NA - 11	Yes	NA	0.0120	0.0000	0.0000	4.599

Reportable Releases - Threshold Comparison 2023 to 2022

Calendar 2023 to 2022

Part 1A - 10 Tonne MPO Reporting Threshold

Substance	CASRN	Year	Air	Water	Disposal	Recycle
		2023	0.012	0.000	0.000	4.599
Nickol	NIA 11	2022	0.012	0.000	0.000	6.061
Nickel	NA - 11	Change	0.000	0.000	0.000	-1.462
		% Change	0.0%	N/A	N/A	-24.1%

ATTACHMENT 2 CONFIRMATION NOTICES AND REPORT SUMMARIES



Government of Canada

Gouvernement du Canada

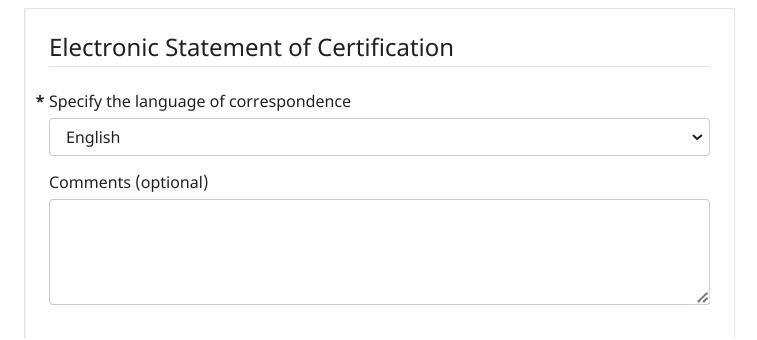
National Pollutant Release Inventory

SWIM > Welcome

- > Reporting Dashboard (/Weber Manufacturing Technologies Inc./Nickel Vapour Deposition)
- > Report Submission and Electronic Certification

Report Submission and Electronic Certification

Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.



I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.

I also acknowledge that the data will be made public



Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company name

Weber Manufacturing Technologies Inc.

Certifying Official

Chris Edwards

Report Submitted by

Tim Logan

* I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.



Report(s) included with submission

Report Year	Facility Name	Province	City	Applicable Program(s)
2023	Nickel Vapour Deposition	Ontario	Midland	NPRI

Back to Dashboard

Version: 4.1.21.3415-069



Gouvernement du Canada

National Pollutant Release Inventory

Summary Report

General Infor	mation	
NPRI ID		
7097		
Company Legal Nan	ne	
Weber Manufactu	ring Technologies Inc.	
Facility Name		
Nickel Vapour Dep	osition	
Facility Address		
375 Cranston Cres	cent, Midland, Ontario, L4R 4K8, Canada	

Report Details Report Year 2023 Programs NPRI

Report Types			
NPRI Inventory			
Report Status			

Substances

CAS RN	Substance Name	Releases	Disposals	Recycling	Unit
NA - 11	Nickel (and its compounds)	0.012		4.599	tonnes

Version: 4.1.21.3415-069

ATTACHMENT 3 SWIM SUBMISSION

National Pollutant Release Inventory Report

Date and time of generation: 2024-06-03 15:29:26

Contents

- 1. General Information
- 2. Summary of Releases, Disposals and Recycling
- 3. Releases to Air, Water and Land
- 4. On-site and Off-site Disposals
- 5. Recycling
- 6. Reasons for Adding or Removing Substance(s)
- 7. Special Reports
- 8. Feedback
- 9. Report Submission and Electronic Certification

General Information

Report Details

Report Year: 2023

Report Type(s)/Program(s): NPRI

Report Status: Submitted

Submitted Date: 2024-06-03 3:28:33 PM Report Creation Type: Prepopulated

Company Idm Id: 15325 Facility Idm Id: 11125

Company Information

Legal Name: Weber Manufacturing Technologies Inc.

Business Number: 855333381

Mailing Address: PoBox 399 Post Office Box 16566 12 Highway, Midland, Ontario, L4R 4L1, Canada

Website: www.webermfg.ca

Parent Company(ies) Information

Name	Business Number	D-U-N-S Number	Percentage Owned	Mailing Address	Additional Information
Zynik Capital Corporation	131891772		100%	General Delivery 1040 West Georgia Street, Vancouver, British Columbia, V6E 4H1, Canada	Suite 950

Contacts

Contact Type	Name	Phone	Extension	Email	Position	Correspondence Language	Company Name
Technical Contact	Chris Holsgrove	705-527-2957		Chris.Holsgrove@ webermfg.ca	Maintenance Supervisor	English	
Certifying Official	Chris Edwards	705-527-2930		Chris.Edwards@w ebermfg.ca	Chief Executive Officer	English	
Public Contact	Chris Edwards	705-527-2930		Chris.Edwards@w ebermfg.ca	Chief Executive Officer	English	
Company Coordinator	Chris Holsgrove	705-527-2957		Chris.Holsgrove@ webermfg.ca	Maintenance Supervisor	English	

Contractor	Tim Logan	519-633-2400	t.logan@o2e.ca	Consultant	English	O2E Inc.
Contact						

Facility Information

Facility Name: Nickel Vapour Deposition

Physical Address: 375 Cranston Crescent, Midland, Ontario, L4R 4K8, Canada

Latitude and longitude: 44.730200, -79.864900

Primary NAICS Code: 333511

Number of full-time employee equivalents: 21

Is this a portable facility?: No

Identifiers, Environmental Regulations, and Permit Numbers

Type of Identifier or Issuing Agency of Permit	Identifier or Permit Number
National Pollutant Release Inventory Identifier	7097

General Reporting Questions

Do you want to report any Part 1A substances?: Yes

Do you want to report any Part 1B substances?: No

Is the facility subject to the Chromium Electroplating, Chromium Anodizing and Reverse Etching Regulations (SOR/2009-162)?: No

Do you want to report any Part 2 substances?: No

Did wood preservation using creosote occur at the facility, and were PAHs released, disposed of, or transferred as a result of wood preservation using creosote?: No

Do any of the following activities take place at the facility, regardless of the number of employees at the facility?: None

Do employees at the facility work a total of 20 000 hours or more AND do any of the following activities take place at the facility?: None

Do you want to report any Part 4 substances?: No Do you want to report any Part 5 substances?: No

Does the facility have a P2 Plan?: No

Did the facility complete any pollution prevention activities in the current NPRI reporting year?: No

Did the facility operate one or more electricity generating units that had a capacity of 25 MW or more and that distributed or sold to the grid 33% or

Summary of Releases, Disposals and Recycling

Parts 1-3 Substances

CAS RN	Substance Name	Substance Part	Releases	Releases to All Media < 1 tonnes	Disposals	Recycling	Unit	Nature of activities	Required / Voluntary
NA - 11	Nickel (and its compounds)	1A	0.012			4.599	tonnes	As a formulation component	Required

Releases to Air, Water and Land

Releases to Air, Water and Land

CAS RN	Substance Name	Substance Part	Туре	Release Category	Basis of Estimate	Detail Code	Quantity	Unit
NA - 11	Nickel (and its compounds)	1A	Releases to	Stack or Point Releases	M3 - Source Testing		0.012	tonnes

Reasons for Change, Releases to Air and Land Comments, and Substance Release Comments

CAS RN	Substance Name	Substance Part	Reasons for Change	Nature of "Other Non-Point Releases" release comments	Nature of "Other" land release comments	Substance Release Comment
NA - 11	Nickel (and its compounds)	1A	Decrease in production levels			

Parts 1-3 Substances Quarterly Percentage Breakdown

CAS RN	Substance Name	Substance Part	January - March %	April - June %	July - September %	October - December %
NA - 11	Nickel (and its compounds)	1A	25	25	25	25

On-site and Off-site Disposals

Reasons for Disposal, Reasons for Change and Substance Disposal Comments

CAS RN	Substance Name	Substance Part	Reasons for Disposal	Reasons for Change	Substance Disposal Comments
NA - 11	Nickel (and its compounds)	1A		No significant change	

Recycling

Transfers Off-Site for Recycling

CAS RN	Substance Name	Substance Part	Recycling Category	Basis of Estimate	Detail Code	Quantity	Unit
NA - 11	Nickel (and its compounds)	1A	Recovery of Metals and Metal Compounds	C - Mass Balance		4.599	tonnes

Reasons for Recycling, Reasons for Change and Substance Recycling Comments

CAS RN	Substance Name	Substance Part	Reasons for	Reasons for Change	Substance
			Recycling		Recycling

					Comments
NA - 11	Nickel (and its compounds)	1A	Production Residues, Off-specificatio n products, Unusable parts or discards	Decrease in production levels	

Off-Site Recycling Locations

CAS RN	Substance Name	Substance Part	Recycling Category	Name	Address	Quantity	Unit
NA - 11	Nickel (and its compounds)	1A	Recovery of Metals and Metal Compounds	Waxman Recycling Industries 🛘	96 Hyde Avenue Parkway🛭, Toronto 🖺 Ontario, Canada	4.599	tonnes

Reasons for Adding or Removing Substance(s)

Special Reports

Pollution Prevention Plan

Plan was prepared or implemented for another government jurisdiction: No

Plan was prepared or implemented on a voluntary basis: No

Reasons no pollution prevention activities were completed: Activities were implemented in a previous year; additional activities are either unnecessary or unfeasible at this time

Feedback

Specify your level of satisfaction: Neutral

Report Submission and Electronic Certification

Specify the language of correspondence: English

Company name: Weber Manufacturing Technologies Inc.

Certifying Official: Chris Edwards **Report Submitted by:** Tim Logan

I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.: Yes

Quantification of GHG Emissions - Environment Canada and Ontario Ministry of the Environment Standard Quantification Methods Chapter 2 - Quantification Methods for Fuel Combustion and Flaring

Weber Manufacturing - Manufacturing Facility

Date Completed: May 31, 2024 for calendar year 2023

Calculations of CO2e releases from fossil fuel combustion are based on the standard quantification methods listed in the Environment Canada document entitled "Greenhouse Gas Reporting Program - Canada's Greenhouse Gas Quantification Requirements Version 5.0 - December 2021", specifically Chapter 2 Quantification Methods for Fuel Combustion and Flaring. The following equations from the aforementioned section were used to calculate releases of greenhouse gases from the fuels used at the site.

Carbon dioxide emissions from fossil fuels (except natural gas): Equation 2-2: Volume or Mass based Non-Variable Fuels Equation

Carbon dioxde emissions from natural gas: Equation 2-9: Carbon Dioxide High Heat Value Method

CO_{2NG}=Natural Gas Volume x (SLOPE x HHV - INTERCEPT) x 10⁻⁶

Methane and nitrous oxide emissions from natural gas: Equation 2-12: CH₄ and N₂O High Heat Value Methods, in Energy Units

Other variables used in the determination of greenhouse gas emissions, including emission factors and high heating values, were also obtained from the above noted guidance document and are listed below. Note that the annual average high heat value for natural gas was obtained from Union Gas.

	E	mission Factors	i					
Fuel	CO ₂	CH ₄	N ₂ O	Heating Valu	ies		Natural gas burned	556,000 m³
Natural Gas	1956.38 g/m ³	0.98 g/GJ	0.87 g/GJ	<u>Fuel</u>	HHV	<u>Units</u>	Diesel	0 L
Diesel (mobile)	2,681 g/L	0.073 g/L	0.02 g/L	Natural Gas	0.03888333	GJ/m³	Propane burned	0 L
Propane	1515 g/L	0.024 g/L	0.108 g/L	Propane	25.66	GJ/kL	Slope	66.2
				Diesel	38.3	GJ/kL	Intercept	617.7

	Calcula			
Fuel	CO ₂	CH ₄	N ₂ O	
Natural Gas	1087.745	0.021	0.019	
Diesel (mobile)	0.000	0.000	0.000	
Propane	0.000	0.000	0.000	
Totals	1087.745	0.021	0.019	
Global Warming Potential	1	28	265	
CO ₂ e releases	1087.745	0.593	4.984	
Combustion Total			1,093.323	tonnes

Total CO₂e Releases	1,093.323 tonnes
Reporting Threshold	10,000 tonnes
Does site exceed threshold?	No
Is reporting required?	Not Required

Natural gas HHV									
Location	Year	Month	HHV (MJ/m ³)						
ONTARIO	2023	1	39.3						
	2023	2	39.3						
	2023	3	39.3						
	2023	4	39.0						
	2023	5	38.6						
	2023	6	38.6						
	2023	7	38.5						
	2023	8	38.9						
	2023	9	38.6						
	2023	10	38.9						
	2023	11	39.0						
	2023	12	38.6						
		Average	38.883						

Quantification of GHG Emissions - Environment Canada and Ontario Ministry of the Environment Standard Quantification Methods Chapter 2 - Quantification Methods for Fuel Combustion and Flaring

Weber Manufacturing - NVD Facility

Date Completed: May 31, 2024 for calendar year 2024

Calculations of CO₂e releases from fossil fuel combustion are based on the standard quantification methods listed in the Environment Canada document entitled "Greenhouse Gas Reporting Program - Canada's Greenhouse Gas Quantification Requirements Version 6.0 - December 2022", specifically Chapter 2 Quantification Methods for Fuel Combustion and Flaring. The following equations from the aforementioned section were used to calculate releases of greenhouse gases from the fuels used at the site.

Carbon dioxide emissions from fossil fuels (except natural gas): Equation 2-2: Volume or Mass based Non-Variable Fuels Equation

Carbon dioxde emissions from natural gas: Equation 2-9: Carbon Dioxide High Heat Value Method

CO_{2NG}=Natural Gas Volume x (SLOPE x HHV - INTERCEPT) x 10⁻⁶

Methane and nitrous oxide emissions from natural gas: Equation 2-12: CH_4 and N_2O High Heat Value Methods, in Energy Units Methane and nitrous oxide emissions from fossil fuels: Equation 2-13: CH_4 and N_2O High Heat Value Methods, in Physical Units

Other variables used in the determination of greenhouse gas emissions, including emission factors and high heating values, were also obtained from the above noted guidance document and are listed below. Note that the annual average high heat value for natural gas was obtained from Enbridge.

	Emission Factors					Natural gas HHV						
Fuel	CO ₂	CH ₄	N ₂ O	Heating Value	Location	Year	Month	HHV (MJ/m ³)				
Natural Gas	1956.38 g/m ³	0.98 g/GJ	0.87 g/GJ	<u>Fuel</u>	HHV	<u>Units</u>	ONTARIO	2023	1	39.3		
Diesel (mobile)	2,681 g/L	0.073 g/L	0.02 g/L	Natural Gas	0.03888	GJ/m ³		2023	2	39.3		
Propane (mobile)	1515 g/L	0.024 g/L	0.108 g/L	Propane	25.66	GJ/kL		2023	3	39.3		
				Diesel	38.3	GJ/kL		2023	4	39.0		
	Calculated Releases (Tonnes)			Slope	66.2			2023	5	38.6		
Fuel	CO ₂	CH ₄	N ₂ O	Intercept	617.7			2023	6	38.6		
Natural Gas	2392.117	0.047	0.041					2023	7	38.5		
Diesel (mobile)	0.000	0.000	0.000	Natural gas burned	1,222,728 m°			2023	8	38.9		
Propane	1.161	0.000	0.000	Diesel (mobile)	0 L			2023	9	38.6		
Totals	2393.278	0.047	0.041	Propane burned	767 L			2023	10	38.9		
Global Warming Potential	1	28	265					2023	11	39.0		
CO ₂ e releases	2393.278	1.305	10.983					2023	12	38.6		
Combustion Total			2,405.566						Average	38.883		

tonnes

Total CO₂e Releases
Reporting Threshold
Does site exceed threshold?

2,405.566 tonnes
10,000 tonnes

Does site exceed threshold? No
Is reporting required? Not Required

Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Financial Instruments Branch

Direction des instruments financiers

40 St. Clair Ave. West

8th Floor

Toronto ON M4V 1M2

40, av. St. Clair Ouest 8e étage

Toronto ON M4V 1M2



February 13, 2024

MEMORANDUM

To: Peter Mussio

Enbridge Gas Inc.

From: Eric Loi

Senior Engineer, Industrial Specialist

RE: 2023 Natural Gas Composition and Higher Heating Value Data

Thank you for your letter (enclosed) dated February 8, 2024, on the 2023 gas composition and higher heating value (HHV) data.

Ontario Regulation 390/18 (Greenhouse Gas Emissions: Quantification, Reporting and Verification) and the *Guideline for Quantification, Reporting and Verification of Greenhouse Gas Emissions* (Guideline) allows for the use of carbon content and fuel higher heating values in the calculation of greenhouse gas emissions from fuel combustion and flaring.

The provisions in the Guideline include the use of fuel sampling or results received from the fuel supplier at the minimum frequency of monthly for natural gas. The gas composition and higher heating value data for Enbridge Gas Distribution Inc. that is contained in your February 8, 2024 letter meets the minimum frequency requirements for fuel sampling and subject to the facility meeting all the other applicable requirements in the Guideline pertaining to the measurement of natural gas, the data can be used for the calculation of greenhouse gas emissions in applicable equations.

Thanks for your cooperation in providing this data for facilities to use in the calculation of 2023 greenhouse gas emissions.

Yours truly,

Eric Loi, P.Eng., M.Eng.

Cc. Davika Misir, Senior Program Advisor, Financial Instruments Branch, MECP Encl.



Enbridge Gas Inc. 500 Consumers Road North York, ON M2J 1P8

February 8, 2024

Eric Loi, P. Eng., M. Eng. Senior Engineer Ministry of Environment, Conservation and Parks 40 St. Clair Ave W, Foster Building Toronto ON M4V 1M2

Delivered by e-mail: eric.loi@ontario.ca

Dear Eric:

RE: 2023 Gas Composition and HHV Data

Enbridge Gas Inc is pleased to provide gas composition and higher heating value (HHV) information for the reporters who will be reporting in 2024 into the Ontario GHG reporting system. This is provided in the summary table below. We understand that that this information will be made available to facilities by the Ministry for use in calculations under Regulation 390/18 and information purposes.

Sincerely,

Peter Mussio

Manager, Carbon Strategy

Enbridge Gas Inc

Peter.Mussio@enbridge.com



Enbridge Gas Inc 2023 Gas Composition and High Heating Value Data													
		23-Jan	23-Feb	23-Mar	23-Apr	23-May	23-Jun	23-Jul	23-Aug	23-Sep	23-Oct	23-Nov	23-Dec
Ontario: Typical Ga	Ontario: Typical Gas HHV												
Natural gas HHV	(GJ/standard* m3)	0.0393	0.0393	0.0393	0.0390	0.0386	0.0386	0.0385	0.0389	0.0386	0.0389	0.0390	0.0386
Ontario: Typical Ga	Ontario: Typical Gas Composition												
methane	mole %	93.15	93.21	93.48	94.56	95.56	94.99	96.15	94.24	95.54	94.35	94.59	95.93
ethane	mole %	5.73	5.67	5.53	4.58	3.56	3.84	3.15	4.73	3.57	4.54	4.51	3.26
propane	mole %	0.28	0.28	0.28	0.19	0.13	0.18	0.12	0.09	0.11	0.25	0.28	0.13
butanes	mole %	0.05	0.06	0.05	0.03	0.01	0.03	0.01	0.01	0.01	0.01	0.03	0.02
pentanes	mole %	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
hexanes+	mole %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
nitrogen	mole %	0.45	0.46	0.39	0.41	0.39	0.46	0.32	0.40	0.38	0.40	0.36	0.43
carbon dioxide	mole %	0.30	0.30	0.23	0.21	0.32	0.49	0.23	0.51	0.37	0.44	0.20	0.20
oxygen	mole %	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.02
hydrogen	mole %	0.01	0.01	0.01	0.01	0.01	0.00	0.02	0.00	0.01	0.01	0.02	0.01
Total	mole %	100	100	100	100	100	100	100	100	100	100	100	100

*Standard conditions: 15° Celsius, 101.325 kPa

The gas analyses used to determine the typical HHV and gas composition follow the Measurement Canada requirements for Electricity and Gas and use the following analytical method references: GPA standards 2261 and 2286 for fuel carbon content and GPA standards 2145 and 2172 for fuel heat content.

While every effort has been made to ensure the accuracy of this information, Enbridge Gas does not warrant accuracy of the information for any purpose. Enbridge Gas provides no guarantee regarding gas composition or high heating value (HHV) for any specific delivery point. It is the responsibility of the information user to ensure that the data meets the applicable regulatory requirements.