Nadan Consulting Ltd.

ONTARIO AIRBORNE CONTAMINANT DISCHARGE & NATIONAL POLLUTANT RELEASE INVENTORY (NPRI) MONITORING & REPORTING

Mobile Climate Control
7540 Jane St
Vaughan, ON.
L4K 0A6

May 16, 2018

ONTARIO AIRBORNE CONTAMINANT DISCHARGE MONITORING & REPORTING

The Ontario Ministry of the Environment (MOE) has amended Regulation 127/01 to streamline the reporting process, and eliminate the redundancies between the provincial and federal reporting requirements. Acetone is the only remaining reportable contaminant under Reg.127/01. MCC does not use acetone, and thus, is not required to report to the MOE concerning Regulation 127/01.

NATIONAL POLLUTANT RELEASE INVENTORY (NPRI)

MCC exceeded the reporting threshold of Group 1 substance chromium.

Part 1A Substances

MCC exceeded the reporting threshold of chromium. The reporting threshold for Group 1A substances is 10,000 kg manufactured, processed or otherwise used at a concentration greater than or equal to one percent.

Chromium is present at a concentration greater than 1% as a component in the stainless steel used to produce the finish units. Usage of chromium in 2017 at concentrations above one percent was 21,287 kg. There were no releases to air or discharges to sewer of chromium.

Excess steel is shipped off-site for recycling. It has been assumed that the scrap metal has the same composition as the original product used at the plant. Of the 21,287 kg of total chromium used in 2017, 7,851kg was shipped off-site for recycling to Combined Metal Industries at 505 Garyray Dr, Toronto.

The data quality of the quantity of chromium used in the year is considered good as the calculation was based on the certified composition of the metal provided by the metal supplier and the quantity of each grade of metal purchased.

The data quality of the quantity of steel shipped offsite for recycling is average as it is supplied by the recycler.

The composition of the waste metal shipped offsite with respect to chromium was obtained by taking a weighted average of stainless steel used in the facility in 2017.

Usage of nickel in 2017 was 9,306 kg, below the reporting threshold of 10,000 kg MPO.

GREENHOUSE GAS REPORTING
Emissions of carbon dioxide in 2017 from combustion of natural gas was 205.33 T. The reporting threshold is 10,000T.

Disclaimer
Reasonable efforts have been made to obtain relevant information, statements and documents concerning MCC facility from MCC management and staff. The accuracy of this report is subject to any errors or omissions, refusals, or inability to provide that information.

Report Preview

Report Details

Report Year	2017
Report Type:	NPRI,ON MOE TRA
Report Status:	Ready to Submit
Modified Date/Time:	16/05/2018 11:41 AM

Company and Facility Details

Company Name:	Mobile Climate Control Industries Inc.
Business Number:	246256325
Mailing Address:	Delivery Mode: SuburbanServices Address Line 1: 7540 Jane Street City, Province/Territory, Postal Code: Vaughan Ontario L4K 0A6 Country: Canada
Facility Name:	Mobile Climate Control
NAICS Code:	336390
NPRI ID:	26399
Physical Address:	Address Line 1: 7540 Jane Street City, Province/Territory, Postal Code: Vaughan Ontario L4K 0A6 Country: Canada Latitude: 43.79032 Longitude: -79.52494 UTM Zone: 17 UTM Easting: 618712 UTM Northing: 4849622

Permits

Number or Permit Number:	6135-83PJJK
Government Department, Agency, or Program Name:	MOE - ECA Air

Contacts Details

Contact Type	Technical Contact, Public Contact
Name:	Boris Sukovski
Position:	Quality Director
Telephone:	9054822750
Extension	1281
Email:	boris.sukovski@mcc-hvac.com

Contact Type	Certifying Official, Highest Ranking Employee
Name:	Bob Kuzminski
Position:	President
Telephone:	9054822756
Email:	bob.kuzminski@mcc-hvac.com

Contact Type	Contractor Contact, Person who prepared the report
Name:	Wendy Nadan
Position:	Principal
Telephone:	5199404724
Email:	wendy@nadanconsulting.com
Independent contractor/consultant company name:	Nadan Consulting Ltd

General Information

Number of employees:	391
Activities for Which the 20,000-Hour Employee Threshold Does Not Apply:	None of the above
Activities Relevant to Reporting Dioxins, Furans and Hexacholorobenzene:	None of the above
Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs):	Wood preservation using creosote: No
Is this the first time the facility is reporting to the NPRI (under current or past ownership):	No
Is the facility controlled by another Canadian company or companies:	No
Did the facility report under other environmental regulations or permits:	Yes
Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants):	No

Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 04	Chromium (and its compounds)	N/A	N/A	N/A	7.8510	tonnes

Applicable Programs

CAS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	First report for this substance to the ON MOE TRA
NA - 04	Chromium (and its compounds)	Yes	Yes		No

General Information about the Substance - Releases and Transfers of the Substance

CAS RN	Substance Name	Was the substance released on-site	The substance will be reported as the sum of releases to all media (total of 1 tonne or less)	1 tonne or more of a Part 5 Substance (Speciated VOC) was released to air
NA - 04	Chromium (and its compounds)	No	No	No

General Information about the Substance - Disposals and Off-site Transfers for Recycling

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling
	Chromium			

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling
NA - 04	(and its compounds)	No	No	Yes

General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
NA - 04	Chromium (and its compounds)		As a formulation component	

TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 04	Chromium (and its compounds)	Use	21.287 tonnes	Yes
NA - 04	Chromium (and its compounds)	Creation	0.0000 tonnes	Yes
NA - 04	Chromium (and its compounds)	Contained in Product	13.436 tonnes	Yes

TRA Quantifications - Others

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
NA - 04	Chromium (and its compounds)					No

On-site Releases - Reasons for Changes in Quantities Released from Previous Year

CAS RN	Substance Name	Reasons for Changes in Quantities from Previous Year	Comments
NA - 04	Chromium (and its compounds)	No significant change (i.e. < 10%) or no change	

Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities from Previous Year	Comments
NA - 04	Chromium (and its compounds)		Other (specify in On-site Releases comment field)	Substance not disposed.

Recycling - Off-site Transfers for Recycling

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 04	Chromium (and its compounds)	Recovery of Metals and Metal Compounds	O - Engineering Estimates		7.851 tonnes

Recycling - Off-site Transfers for Recycling - Total

CAS RN	Substance Name	Total - Off-site Transfers for Recycling
NA - 04	Chromium (and its compounds)	7.851 tonnes

Recycling - Off-site Transfers for Recycling - By Facility

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
NA - 04	Chromium (and its compounds)	Recovery of Metals and Metal Compounds	Combined Metal Industries	505 Garyray Drive, Toronto, ON, Canada	7.851 tonnes

Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
NA - 04	Chromium (and its compounds)	Unusable parts or discards	No significant change (i.e. < 10%) or no change	

Comparison Report - Enters, Creation, Contained in Product

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 04	Chromium (and its compounds)	No	Enters the facility (Use)	21.287 tonnes	21.433 tonnes	2016	-0.146	-0.68
NA - 04	Chromium (and its compounds)	No	Creation	0.0000 tonnes	0.0000 tonnes	2016	0.0000	
NA - 04	Chromium (and its compounds)	No	Contained in Product	13.436 tonnes	13.39 tonnes	2016	0.046	0.34

Comparison Report - Enters, Creation, Contained in Product : Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 04	Chromium (and its compounds)	No reasons - quantities approximately the same	

Comparison Report - Transfers off-site for Recycling

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 04	Chromium (and its compounds)	No	Total off-site Transfers for Recycling	7.851 tonnes	8.043 tonnes	2016	-0.192	-2.39

Comparison Report - Transfers off-site for Recycling - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 04	Chromium (and its compounds)	No reasons - quantities approximately the same	

Pollution Prevention

Does the facility have a documented pollution prevention plan?	Yes
a) Please check all that apply	Plan was prepared or implemented for another government jurisdiction (i.e. other Federal government department, province, municipality). Specify name in comments field below.
b) Did the facility update their plan in the current reporting year?	No
Please summarize your pollution prevention plan. If you selected "Substances", please specify the substances that were addressed in your plan (this information will be publicly available).	toxics reduction plan
Did the facility complete any pollution prevention activities in the current NPRI reporting year	No

Progress on TRA Plan - Objectives

CAS RN	Substance Name	Objectives
NA - 04	Chromium (and its compounds)	none

Progress on TRA Plan - Use Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 04	Chromium (and its compounds)	No quantity target	No timeline target	

Progress on TRA Plan - Creation Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 04	Chromium (and its compounds)	No quantity target	No timeline target	

Progress on TRA Plan - Additional Actions

CAS RN	Substance Name	Were there any additional actions outside the plan taken during the reporting period to reduce the use and/or creation of the substance?	Describe any additional actions that were taken during the reporting period to achieve the plan's objectives	Provide a public summary of the description of the additional action taken
NA - 04	Chromium (and its compounds)	No		

Progress on TRA Plan - Reductions due to additional actions taken

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 04	Chromium (and its compounds)	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 04	Chromium (and its compounds)	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 04	Chromium (and its compounds)	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	

Progress on TRA Plan - Amendments

CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	Description any amendments that were made to the toxic substance reduction plan during the reporting period	Provide a public summary of the description of any amendments that were made to the toxic substance reduction plan during the reporting period
NA - 04	Chromium (and its compounds)	No		

Empty

Version: 3.14.0

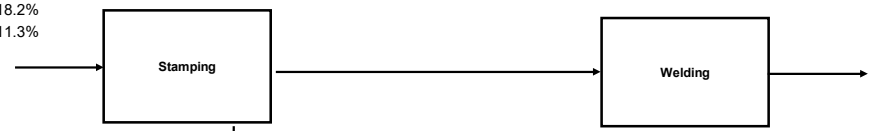
Chromium Material Balance and Process Flow Diagram

Facility Inputs:

Air emissions: none - no external exhaust

Air emissions: NONE

			% Cr
stainless 304	115,849	kg	18.2%
stainless 409	1,790	kg	11.3%



Product: by material balance

TOTAL: 13,436 kg Cr

TOTAL: 21,287 kg Cr

Scrap metal stream

Off-site transfers of Scrap Metal:

	43,135	kg Total Steel
ave Cr:	18.20	%
Qty:	7,851	kg Cr
		kg Total Steel
ave Cr:	18.20	%
Qty:	-	kg Cr

TOTAL: 7,851 kg Cr

Material Balance

Purchased	Created	Contained in Product	Shipped Off-Site	Released On-site (air)	Destroyed	Discrepancy
21,287	0.0	13,436	7,851	0.0	0.0	0.0

Comment: **Material balance is perfect, since amount in product is obtained by difference between purchased and off-site transfers**

Nickel Material Balance and Process Flow Diagram

Facility Inputs:

Air emissions: none - no external exhaust

Air emissions: NONE

			% Ni
stainless 304	115,849	kg	8.0%
stainless 409	1,790	kg	0.2%

TOTAL: 9,306 kg Ni

Product: by material balance

TOTAL: 5,856 kg Ni

Scrap metal stream

Off-site transfers of Scrap Metal:

	43,135	kg Total Steel
ave Ni:	8.00	%
Qty:	3,451	kg Ni
		kg Total Steel
ave Ni:	8.00	%
Qty:	-	kg Ni
TOTAL:	3,451	kg Ni

Material Balance

Purchased	Created	Contained in Product	Shipped Off-Site	Released On-site (air)	Destroyed	Discrepancy
9,306.4	0.0	5,855.6	3,450.8	0.0	0.0	0.0

Comment: **Material balance is perfect, since amount in product is obtained by difference between purchased and off-site transfers**

Source: Natural Gas Combustion

annual natural gas usage, m3	106,943

Combustion products	emission factor kg/m^3	emissions, kg	Reporting threshold, kg
PM, total	0.00012160	13	20,000
PM, 2.5	0.00012160	13	300
PM, 10	0.00012160	13	500
Carbon dioxide	1.92	205,331	100,000,000
Carbon monoxide	0.001344	144	20,000
Nitrous oxide	0.001602	171	2,700

Emission factors are taken from the US EPA FIRE database .