# Nadan Consulting Ltd.

# NATIONAL POLLUTANT RELEASE INVENTORY (NPRI) MONITORING & REPORTING

### **Mobile Climate Control**

7540 Jane St Vaughan, ON. L4K 0A6

September 3, 2021

#### 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 2020 at concentrations above one percent was 12,676 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 12,676 kg of total chromium used in 2020, 4,307 kg 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 2019.

Usage of nickel in 2020 was 5,593 kg, below the reporting threshold of 10,000 kg MPO.

#### 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.



Number or Permit Number:

Government Department, Agency, or Program Name:

6135-83PJJK

MOE - ECA Air

#### **Contacts Details**

Contact Type

Technical Contact, Public Contact

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Independent contractor/consultant company	Nadan Consulting Ltd

Independent contractor/consultant company name:

#### **General Information**

Number of employees:

Activities for Which the 20,000-Hour Employee Threshold Does Not Apply:

Activities Relevant to Reporting Dioxins, Furans and Hexacholorobenzene:

Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs):

Does this facility release less than the reporting threshold for each Part 4 substance AND have one or more light or medium crude oil batteries with a total oil throughput for the battery components of the facility of  $\geq\!1,900$ m3 per year?

Did the facility operate one or more electricity generation units that had a capacity of 25 MW or more and that distributed or sold to the grid 33% or more of its potential electrical output in the calendar year?

Is this the first time the facility is reporting to the NPRI (under current or past ownership):

Is the facility controlled by another Canadian company or companies:

Did the facility report under other environmental regulations or permits?

Does this facility solely consist of compression equipment in the oil and gas extraction sector?

Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants):

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None of the above
None of the above
Wood preservation using creosote: No

NO

No

No		
No		
0		
Yes		
No		
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	4.307000	tonnes

### Applicable Programs

CAS RN	Substance Name	NPRI	ON MECP TRA	First report for this substance to the ON MECP 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
NA - 04	Chromium (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	12.676 tonnes	Yes
NA - 04	Chromium (and its compounds)	Creation	0.0000 tonnes	Yes
NA - 04	Chromium (and its compounds)	Contained in Product	8.369 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	Reason for the 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)	Decrease in production levels	

#### **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)		Decrease in production levels	

#### Recycling - Off-site Transfers for Recycling

CAS RN Substance Name Category Basis of Estimate Detail Code Quantit	Basis of Estimate Detail Code Quantity	AS RN Substance Name Category	CAS RN Substance	CAS RN
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NA - 04	Chromium (and its compounds)	Recovery of Metals and Metal Compounds	O - Engineering Estimates		4.307 tonnes
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#### Recycling - Off-site Transfers for Recycling - Total

CAS RN	Substance Name	Total - Off-site Transfers for Recycling
NA - 04	Chromium (and its compounds)	4.307 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	4.307 tonnes

#### Recycling - Reasons and Comments

CAS RN	CAS RN Substance Name Reasons Why Substance Was Recycled		Reasons for Changes in Quantities Recycled from Previous Year		
NA - 04	Chromium (and its compounds)	Unusable parts or discards	Decrease in production levels		

# 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)	12.676 tonnes	20.711 tonnes	2019	-8.035	-38.80
NA - 04	Chromium (and its compounds)	No	Creation	0.0000 tonnes	0.0000 tonnes	2019	0.0000	
NA - 04	Chromium (and its compounds)	No	Contained in Product	8.369 tonnes	12.926 tonnes	2019	-4.557	-35.25

### 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)	Decrease in production levels	

#### Comparison Report - Transfers off-site for Recycling

CAS RN	Substance Name	Is Breakdowr	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	4.307 tonnes	7.785 tonnes	2019	-3.478	-44.68

### 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)	Decrease in production levels	

## **Pollution Prevention**

available).

in your plan (this information will be publicly

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
c) Does the plan address substances, energy conservation, or water conservation?	Substances (provide the name of the primary Substances in the comments field below)
Please summarize your pollution prevention plan. If you selected "Substances", please specify the substances that were addressed	toxics reduction plan for chromium

Did the facility complete any pollution prevention activities in the current NPRI reporting year

If no, please select all applicable reasons from the list below:

0									-
	Substance,	process	or technoloav	alternatives	are	unknown	or	unavailable	

#### Progress on TRA Plan - Objectives

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

No

#### 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 <b>use</b> 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 <b>creation</b> 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 <b>contained in product</b> 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 <b>release to air</b> 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 <b>release to water</b> 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 <b>release to land</b> 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 <b>disposed on-site</b> (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 <b>disposed off-site</b> (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 <b>recycled off-site</b> 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		

#### Feedback

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healthycanadians.gc.ca	travel.gc.ca	servicecanada.gc.ca	jobbank.gc.ca	actionplan.gc.ca	Ganada.go.oa

#### Nickel Material Balance and Process Flow Diagram



#### Material Balance

Purchased	Created	Contained in Product	Shipped Off-Site	Released On-site (air)	Destroyed	Discrepancy
5,592.6	0.0	3,699.5	1,893.0	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

#### Chromium Material Balance and Process Flow Diagram



Material Balance

Purchased	Created	Contained in Product	Shipped Off-Site	Released On-site (air)	Destroyed	Discrepancy
12,676	0.0	8,369	4,307	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