

Gouvernement du Canada



Services

# National Pollutant Release Inventory (NPRI) and





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#### Report Preview

#### Report Details

Report Year

2015

Report Type:

NPRI,ON MOE TRA

Report Status:

Submitted

Modified Date/Time:

20/05/2016 11:29 AM

#### Company and Facility Details

Company Name:

EMI RFI Shield Plating

Business Number:

101630168

Mailing Address:

Delivery Mode: GeneralDelivery

Address Line 1: 1 - 123 Manville Road Road Southeast City, Province/Territory, Postal Code: Toronto Ontario M1L4J8

Country: Canada

Facility Name:

EMIRFI SHIELD PLATING INC.

NAICS Code:

332810

NPRI ID:

5964

ON Reg 127/01 ID:

5744

Physical Address:

Address Line 1: Unit 1 - 123 Manville Road

City, Province/Territory, Postal Code: Scarborough Ontario M1L4J8

Country: Canada Latitude: 43.72570 Longitude: -79.28230 UTM Zone: 17 UTM Easting: 638372

UTM Easting: 638372 UTM Northing: 4842875

#### **Permits**

Number or Permit Number:

3842-58LPB3

Government Department, Agency, or Program

ON MOE

#### Contacts Details

Contact Type

Technical Contact, Company Coordinator, Person who prepared the report, Person who coordinated the preparation of the Toxics Reduction Plan, Public Contact

Name:

Kaarle Ottonen

Position:

Environmental Manager

Telephone:

4167596731

Fax: 4167598057 Email: kaarle.ottonen@shieldplating.com Mailing Address: Delivery Mode: GeneralDelivery Address Line 1: 1 - 123 Manville Rd Road Southeast City, Province/Territory, Postal Code: Scarborough Ontario M1L4J8 Country: Canada Contact Type Certifying Official, Highest Ranking Employee Name: Mark Henry Position: General Manager Telephone: 4167596731 Fax: 4167598057 Email: mark.henry@shieldplating.com Mailing Address: Delivery Mode: GeneralDelivery Address Line 1: 1 - 123 Manville Road Road Southeast City, Province/Territory, Postal Code: Scarborough Ontario M1L4J8 Country: Canada General Information Number of employees: 34 Activities for Which the 20,000-Hour Employee None of the above Threshold Does Not Apply: Activities Relevant to Reporting Dioxins, None of the above Furans and Hexacholorobenzene: Activities Relevant to Reporting of Polycyclic Wood preservation using creosote: No Aromatic Hydrocarbons (PAHs): Is this the first time the facility is reporting to the NPRI (under current or past ownership): Is the facility controlled by another Canadian No company or companies: Did the facility report under other Yes environmental regulations or permits: Is the facility required to report one or more Νo NPRI Part 4 substances (Criteria Air Contaminants): Operating Schedule - Days of the Week: Mon, Tue, Wed, Thu, Fri Usual Number of Operating Hours per day: Usual Daily Start Time (24h) (hh:mm): 16:30 Shutdown Periods: From 2015-07-25 To 2015-07-31

#### Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 03	Cadmium (and its compounds)	0.0524	N/A	2.1880	N/A	kg
NA - 19	Hexavalent chromium (and its compounds)	0.1699	N/A	77.2440	N/A	kg
7664-93-9	Sulphuric acid	0.0039	N/A	12.7250	N/A	tonnes

#### Applicable Programs

C	AS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	this substance to the ON MOE TRA
N	IA - 03	Cadmium (and its compounds)	Yes	Yes		No

First report for

CAS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	this substance to the ON MOE TRA
NA - 19	Hexavalent chromium (and its compounds)	Yes	Yes		No
7664-93-9	Sulphuric acid	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 - 03	Cadmium (and its compounds)	Yes	No	No
NA - 19	Hexavalent chromium (and its compounds)	Yes	No	No
7664-93-9	Sulphuric acid	Yes	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 - 03	Cadmium (and its compounds)	Yes	No	No
NA - 19	Hexavalent chromium (and its compounds)	Yes	No	No
7664-93-9	Sulphuric acid	Yes	No	No

#### General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
NA - 03	Cadmium (and its compounds)		As a formulation component	
NA - 19	Hexavalent chromium (and its compounds)		As an article component	
7664-93-9	Sulphuric acid		As a formulation component	

#### TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained	Quantity	Use ranges for public reporting
NA - 03	Cadmium (and its compounds)	Use	50 kg	Yes
NA - 03	Cadmium (and its compounds)	Creation	0 kg	No
NA - 03	Cadmium (and its compounds)	Contained	47.76 kg	Yes
NA - 19	Hexavalent chromium (and its compounds)	Use	95.95 kg	Yes
NA - 19	Hexavalent chromium (and its compounds)	Creation	0 kg	No
NA - 19	Hexavalent chromium (and its compounds)	Contained	14.205 kg	Yes
7664-93-9	Sulphuric acid	Use	23.623 tonnes	Yes
7664-93-9	Sulphuric acid	Creation	0 tonnes	No
7664-93-9	Sulphuric acid	Contained	0 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	Incidents out of the normal course of events	Significant Process Change
NA - 03	Cadmium (and its compounds)					No
NA - 19	Hexavalent chromium (and its compounds)					No
7664-93-9	Sulphuric acid					No

#### On-site Releases - Releases to air

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 03	Cadmium (and its compounds)	Stack or Point Releases	O - Engineering Estimates		0.0099 kg
NA - 19	Hexavalent chromium (and its compounds)	Stack or Point Releases	O - Engineering Estimates		0.0091 kg
7664-93-9	Sulphuric acid	Stack or Point Releases	O - Engineering Estimates		0.0039 tonnes

CAS RN	Substance Name	Total - Releases to Air
NA - 03	Cadmium (and its compounds)	0.0099 kg
NA - 19	Hexavalent chromium (and its compounds)	0.0091 kg
7664-93-9	Sulphuric acid	0.0039 tonnes

#### On-site Releases - Releases to water

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 03	Cadmium (and its compounds)	Direct Discharges	M3 - Source Testing		0.0425 kg
NA - 19	Hexavalent chromium (and its compounds)	Direct Discharges	M3 - Source Testing		0.1608 kg

#### On-site Releases - Releases to water - Total

CAS RN	Substance Name	Total - Releases to Water
NA - 03	Cadmium (and its compounds)	0.0425 kg
NA - 19	Hexavalent chromium (and its compounds)	0.1608 kg

#### On-site Releases - Releases to water - Waterbody Breakdown List

CAS RN	Substance Name	Category	Water Body Name	Water Shed ID	Quantity
NA - 03	Cadmium (and its compounds)	Direct Discharges	Lake Ontario		0.0425 kg
NA - 19	Hexavalent chromium (and its compounds)	Direct Discharges	Lake Ontario		0.1608 kg

#### On-site Releases - Releases to water - Dioxins and Furans Breakdown List

Category	CAS RN	Substance Name	Water Body Name	Quantity

#### On-site Releases - Total

CAS RN	Substance Name	Total releases
NA - 03	Cadmium (and its compounds)	0.0524 kg
NA - 19	Hexavalent chromium (and its compounds)	0.1699 kg
7664-93-9	Sulphuric acid	0.0039 tonnes

#### On-site Releases - Quarterly Breakdown of Annual Releases

CAS RN	Substance Name	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NA - 03	Cadmium (and its compounds)	25	25	25	25
NA - 19	Hexavalent chromium (and its compounds)	25	25	25	25
7664-93-9	Sulphuric acid	24	30	26	20

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

CAS RN	Substance Name	Reasons for Changes in Quantities Disposed from Previous Year	Comments (Disposals)
7664-93-9	Sulphuric acid	No significant change (i.e. < 10%) or no change	
NA - 03	Cadmium (and its compounds)	Changes in production levels	
NA - 19	Hexavalent chromium (and its compounds)	Changes in production levels	

#### Disposals - Off-site Transfers (excluding Tailings and Waste Rock)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 03	Cadmium (and its compounds)	Chemical Treatment	M3 - Source Testing		2.188 kg
NA - 19	Hexavalent chromium (and its compounds)	Chemical Treatment	M3 - Source Testing		77.244 kg
7664-93-9	Sulphuric acid	Chemical Treatment	C - Mass Balance		12.725 tonnes

#### Disposals - Off-site Transfers (excluding Tailings and Waste Rock) - Total

CAS RN	Substance Name	Total - Treatment Prior to Final Disposal
NA - 03	Cadmium (and its compounds)	2.188 kg
NA - 19	Hexavalent chromium (and its compounds)	77.244 kg
7664-93-9	Sulphuric acid	12.725 tonnes

#### Disposals - Off-site Transfers (excluding Tailings and Waste Rock) - By Facilities

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
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CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
7664-93-9	Sulphuric acid	Chemical Treatment	Stablex Canada Inc.	760, boul. Industriel, Blainville, QC, Canada	12.725 tonnes
NA - 03	Cadmium (and its compounds)	Chemical Treatment	Stablex Canada Inc.	760, boul. Industriel, Blainville, QC, Canada	2.188 kg
NA - 19	Hexavalent chromium (and its compounds)	Chemical Treatment	Stablex Canada Inc.	760, boul. Industriel, Blainville, QC, Canada	77.244 kg

#### Disposals - Off-site Transfers (excluding Tailings and Waste Rock) - Dioxins and Furans Breakdown List By Facility

Category CAS RN Substance Name Off-site Name Quantity

#### Disposals - Total Quantity Disposed (All Media)

CAS RN	Substance Name	Total Quantity Disposed (All Media)
NA - 03	Cadmium (and its compounds)	2.188 kg
NA - 19	Hexavalent chromium (and its compounds)	77.244 kg
7664-93-9	Sulphuric acid	12.725 tonnes

#### Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities Disposed from Previous Year	Comments (Disposals)
7664-93-9	Sulphuric acid	Production residues Contaminated materials	Changes in on-site treatment	
NA - 03	Cadmium (and its compounds)	Pollution abatement residues	No significant change (i.e. < 10%) or no change	
NA - 19	Hexavalent chromium (and its compounds)	Production residues Contaminated materials	Changes in production levels	

#### Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
7664-93-9	Sulphuric acid		No significant change (i.e. < 10%) or no change	
NA - 03	Cadmium (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 19	Hexavalent chromium (and its compounds)		No significant change (i.e. < 10%) or no change	

#### Comparison Report - Enters, Creation, Contained in Product

CAS RN	CAS RN Substance Name		Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 03 Cadmium (and its compounds)		No	Enters the facility (Use)	50 kg	250 kg	2014	-200	-80.0
NA - 03	Cadmium (and its compounds)	No	Creation	0 kg	0 kg	2014	0	
NA - 03	Cadmium (and its compounds)	No	Contained	47.76 kg	247 kg	2014	-199.24	-80.66
NA - 19 Hexavalent chromium (aits compounds)		No	Enters the facility (Use)	95.95 kg	36.29 kg	2014	59.66	164.40
NA - 19	NA - 19 Hexavalent chromium (and its compounds)		Creation	0 kg	0 kg	2014	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Contained	14.205 kg	19.525 kg	2013	-5.320	-27.25
7664-93-9	Sulphuric acid	No	Enters the facility (Use)	23.623 tonnes	25.931 tonnes	2014	-2.308	-8.90
7664-93-9	Sulphuric acid	No	Creation	0 tonnes	0 tonnes	2014	0	
7664-93-9	Sulphuric acid	No	Contained	0 tonnes	0 tonnes	2014	0	

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

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 03	Cadmium (and its compounds)	Decrease in production levels	
NA - 19	Hexavalent chromium (and its compounds)	Implementation of toxics reduction option(s)	
7664-93-9	Sulphuric acid	Implementation of actions outside of toxics reduction plan	

#### Comparison Report - On-site Releases

CAS RN	Substance Name	Is Breakdow	Is Breakdown		Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 03	Cadmium (and its compounds)	No	Total Releases to Air	0.0099 kg	0.0099 kg	2014	0.0000	0

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 03	Cadmium (and its compounds)	No	Total Releases to Water	0.0425 kg	0.076 kg	2010	-0.0335	-44.08
NA - 03	Cadmium (and its compounds)	No	Total Releases to Land	0 kg	0 kg	2014	0	
NA - 03	Cadmium (and its compounds)	No	Total Releases to All Media	0 kg				
NA - 19 Hexavalent chromium (and its compounds)		No	Total Releases to Air	0.0091 kg	0.0099 kg	2013	-0.0008	-8.08
NA - 19	NA - 19 Hexavalent chromium (and its compounds)		Total Releases to Water	0.1608 kg	0.0316 kg	2010	0.1292	408.86
NA - 19	Hexavalent chromium (and its compounds)	No	Total Releases to Land	0 kg	0 kg	2013	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Total Releases to All Media	0 kg				
7664-93-9	Sulphuric acid	No	Total Releases to Air	0.0039 tonnes	0.0039 tonnes	2014	0.0000	0
7664-93-9 Sulphuric acid		No	Total Releases to Water	0 tonnes	0 tonnes	2014	0	
7664-93-9	Sulphuric acid	No	Total Releases to Land	0 tonnes	0 tonnes	2014	0	
7664-93-9 Sulphuric acid		No	Total Releases to All Media	0 tonnes				

#### Comparison Report - On-site Releases - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 03	Cadmium (and its compounds)	Decrease in production levels	
NA - 19	Hexavalent chromium (and its compounds)	No reasons - quantities approximately the same	
7664-93-9	Sulphuric acid	No reasons - quantities approximately the same	

#### Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 03	Cadmium (and its compounds)	No	Total On-site Disposals	0 kg	0 kg	2014	0	
NA - 03	Cadmium (and its compounds)	No	Total Off-site Disposals	0 kg	0 kg	2014	0	
NA - 03	Cadmium (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	2.188 kg	2.633 kg	2014	-0.445	-16.90
NA - 03	Cadmium (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 kg	0 kg	2014	0	
NA - 03	Cadmium (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 kg	0 kg	2014	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Total On-site Disposals	0 kg	0 kg	2013	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Total Off-site Disposals	0 kg	0 kg	2013	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	77.244 kg	2.210 kg	2013	75.034	3395.20
NA - 19	Hexavalent chromium (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 kg	0 kg	2013	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 kg	0 kg	2013	0	
7664-93-9	Sulphuric acid	No	Total On-site Disposals	0 tonnes	0 tonnes	2014	0	
7664-93-9	Sulphuric acid	No	Total Off-site Disposals	0 tonnes	0 tonnes	2014	0	
7664-93-9	Sulphuric acid	No	Total Off-site transfer for treatment Prior to Final Disposal	12.725 tonnes	15.904 tonnes	2014	-3.179	-19.99
7664-93-9	Sulphuric acid	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
7664-93-9	Sulphuric acid	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	

#### Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock - Reason(s) for Change

**Substance Name** Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 03	Cadmium (and its compounds)	No reasons - quantities approximately the same	
NA - 19	Hexavalent chromium (and its compounds)	Other	Removed plating line and treatment system for Hex Chrome
7664-93-9	Sulphuric acid	Implementation of actions outside of toxics reduction plan	

#### Pollution Prevention

Does the facility have a documented pollution prevention plan?

a) Please check all that apply

b) Did the facility update their plan in the current reporting year?

c) Does the plan address substances, energy conservation, or water conservation?

Please summarize your pollution prevention plan and/or your pollution prevention activities (this information will be publicly available)

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

Yes

Plan was prepared or implemented for another government jurisdiction (i.e. other Federal government department, province, municipality). Specify name in comments field below.

Yes

Substances

To improve processes and procedures to prevent or minimize detrimental effects on the environment and consistently meet applicable government laws, industry regulations and environmental issues.

Yes

#### Pollution Prevention Activities

Category	Activity	Name and description of the other activity
Equipment or Process Modifications	Modified equipment, layout or piping	
Good Operating Practice or Training		
Inventory Management or Purchasing Techniques		
Materials or feedstock substitution	Substituted materials	
On-site Re-use, Recycling, or Recovery	Other (specify in comments field)	Reused spent material to pH adjust water treatment process
Other Pollution Prevention Activities		
Product Design or Reformulation		
Spill or Leak Prevention Activities		

#### Progress on TRA Plan - Objectives

CAS RN	Substance Name	Objectives
NA - 03	Cadmium (and its compounds)	Objectives of the plan is to intend to reduce the use of Cadmium through implementing new programs and practices
NA - 19	Hexavalent chromium (and its compounds)	The objective in the plan is to intend to reduce the use of hexavalent chrome through implementing new programs and practices
7664-93-9	Sulphuric acid	Objectives of the plan is to intend to reduce the use of sulfuric acid through implementing new programs and practices

#### Progress on TRA Plan - Targets

	CAS RN	Substance Name	Quantity	Years	Description of Target
	NA - 03	Cadmium (and its compounds)	32.68 kg	2	To offer customer alternative plating solutions which have similar properties as that of Cadmium. To train platers to inspect tanks for leaks. To improve operating practices through plater training during in process inspection via quality and equipment used to measure thickness ( XRF )
(and its compounds)  (and its compounds)  (and its compounds)  Sulphuric acid  1816.09 kg  3 line. To prevent chemistry from be first acid copper and reuse solution first in and first out procedures, we used for repenishment, spill training		3	To investigate hexavalent free chemistries and to install where possible. To remove an existing hexavalent plating line. To prevent chemistry from becoming expired and to improve spill training. To prevent cross contamination		
		1816.09 kg	3	Treat acid copper and reuse solution, inspect tanks for leaks, prevent cross contamination in bright dips, follow first in and first out procedures, weekly bath analysis for bright nickels, ensure dragouts for bright nickels are used for repenishment, spill training, use spent sulfuric acid dips for effluent pH adjustments, look at alternative chemistry for tri acids, remove a plating line which contains sulfuric acid in some of the chemistries	

#### Progress on TRA Plan - Description

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 03	A - 03 Cadmium (and its compounds)		No timeline target	
NA - 19	Hexavalent chromium (and its compounds)	No quantity target	No timeline target	
7664-93-9	Sulphuric acid	No quantity target	No timeline target	

#### Progress on TRA Plan - Toxic Reduction Options Implemented

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CAS RN	CAS RN Substance Name Activity		Steps that were taken in the reporting period to implement the toxic reduction option	Public summary of the description of the steps	Comparison of the steps that were described in the plan for implementation with the actual steps taken during the reporting period	Public summary of the comparison of the steps	
NA - 03	Cadmium (and its compounds)	Modified design or composition	No steps taken for this reporting year	No steps	None	No steps	
NA - 03	Cadmium (and its compounds)	Training related to toxics substance reduction	No new stepstaken	None	None	None	
NA - 19	Hexavalent chromium (and its compounds)	Other	No steps taken for the reporting year	None	None	None	
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	No steps taken in the reporting year	None	None	None	
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	None taken for the reporting year	None	None	None	
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	No steps taken for the reporting year	None	None	None	
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	No steps taken in the reporting year	None	None	None	
7664-93-9	Sulphuric acid	Other	None	None	None	None	
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	No new steps	None	None	None	
7664-93-9	Sulphuric acid	Modified design or composition	None taken	No summary	None	No summary	
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	No new steps	None	None	None	
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	No new steps taken	None	None	None	

#### Progress on TRA Plan - Reductions due to Options Implemented - Equipment or process modifications

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Other	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Other	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Other	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
7664-93-	9 Sulphuric acid	Other	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 steps described:	No Amount
7664-93-	9 Sulphuric acid	Other  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 steps described:		No Amount
7664-93-	9 Sulphuric acid	Other	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
7664-93-	9 Sulphuric acid	Other	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 steps described:	No Amount
7664-93-	9 Sulphuric acid	Other	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 steps described:	No Amount
7664-93-	9 Sulphuric acid	Other	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

## Progress on TRA Plan - Reductions due to Options Implemented - Improved inventory management or purchasing techniques ubstance Name Activity Reductions due to Options Implemented Quantity

CAS RIM	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life		The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)  Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life		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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

#### Progress on TRA Plan - Reductions due to Options Implemented - Materials or feedstock substitution

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19			The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Substituted materials	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

#### Progress on TRA Plan - Reductions due to Options Implemented - Product design or reformulation

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 03	Cadmium (and its compounds)	Modified design or composition	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	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 steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	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 steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	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 steps described:	
NA - 03	Cadmium (and its compounds)	Modified design or composition	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 steps described:	No Amount
NA - 03	Cadmium (and its compounds)	Modified design or composition	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Modified design or composition	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

#### Progress on TRA Plan - Reductions due to Options Implemented - Spill or leak prevention

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Implemented inspection or monitoring program of potential spill or leak sources	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

### Progress on TRA Plan - Reductions due to Options Implemented - Good operator practice or training

Substance Name	Activity	Reductions due to Options Implemented	Quantity
Cadmium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
Cadmium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
	Cadmium (and its compounds)  Cadmium (and its compounds)	Cadmium (and its compounds)  Cadmium (and its compounds)	Cadmium (and its compounds)  Cadmium (and its

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	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 steps described:	No Amount
NA - 19	Hexavalent chromium (and its compounds)	Training related to toxics substance reduction	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	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 steps described:	No Amount
7664-93-9	Sulphuric acid	Training related to toxics substance reduction	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

#### 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?	•	Provide a public summary of the description of the additional action taken
NA - 03	Cadmium (and its compounds)	No		
NA - 19	Hexavalent chromium (and its compounds)			
7664-93-9	Sulphuric acid	Yes	Implemented the reuse of spent Sulfuric Acid to pH adjust the waste water process.	Implemented the reuse of spent sulfuric acid to pH adjust the waste water process.

#### Progress on TRA Plan - Reductions due to additional actions taken

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 03	Cadmium (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 - 03	Cadmium (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.	

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 03	Cadmium (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 - 03	Cadmium (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 - 03	Cadmium (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 - 03	Cadmium (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 - 03	Cadmium (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 - 03	Cadmium (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 - 03	Cadmium (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.	
NA - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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 - 19	Hexavalent 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.	
7664-93-9	Sulphuric acid	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.	1.00 tonnes
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	No Amount
7664-93-9	Sulphuric acid	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.	1.00 tonnes
7664-93-9	Sulphuric acid	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.	No Amount

#### Progress on TRA Plan - Amendments

CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	were made to the toxic substance reduction plan during the reporting period	any amendments that were made to the toxic substance reduction plan during the reporting period
NA - 03	Cadmium (and its compounds)	No		
NA - 19	Hexavalent chromium (and its compounds)	No		
7664-93-9	Sulphuric acid	No		

### Report Submission and Electronic Certification

#### NPRI - Electronic Statement of Certification

English			
Comments (optional)			

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	
EMI RFI Shield Plating	
Certifying Official (or authorized delegate)	
Mark Henry	
Report Submitted by	
Kaarle Ottonen	

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.

#### ON MOE TRA - Electronic Certification Statement

#### **Annual Report Certification Statement**

As of 20/05/2016, I, Mark Henry, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

#### TRA Substance List

	CAS RN	Substance Name			
	NA - 03	Cadmium (and its compounds)			
	7664-93-9	Sulphuric acid			
	NA - 19	Hexavalent chromium (and its compounds)			
Com	pany Name				
EMI RFI Shield Plating					
High	Highest Ranking Employee				
Mark Henry					
Report Submitted by					
Kaarle Ottonen					
Web	site address				
shie	shieldplating.com				

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

#### Submitted Report

Period	Submission Date	Facility Name	Province	City	Programs
2015	20/05/2016	EMIRFI SHIELD	Ontario	Scarborough	NPRI,ON MOE TRA

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.

Version: 3.10.0



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