

1. General Information

Facility Information		
Company Name	Canada Alloy Castings, a division of Flowserve Canada Corp.	
Facility Address	529 Manitou Drive, Kitchener, ON N2C 1S2	
Site Coordinates (main entrance of site)	17 T 544699 mE 4805463 mN	
NPRI ID	151	
MOE ID	-	
Number of Full-Time Employees	39	
2-Digit NAICS Code	33 – Manufacturing	
4- Digit NAICS Code	3315 – Foundries	
6-Digit NAICS Code	331514 – Steel Foundries	
Substance Information		
Substance Name	CAS #	
Chromium (and its compounds)	NA – 04	
Copper (and its compounds)	NA – 07	
Nickel (and its compounds)	NA – 11	
Particulate Matter 2.5 (PM2.5)	NA – M10	
Particulate Matter 10 (PM10)	NA – M09	
Facility Contact Information		
Report Prepared by	EnviroLum Consulting Inc. Ms. Connie Lum Principal Consultant Phone #: 519-635-2286	connie@enviroLum.com Kitchener, ON TSRP0089
Public Contact	Mr. Russ Urry Director/General Manager Phone #: 519-895-1161 x 241 Fax #: 519-895-1169	russurry@cac.ca 529 Manitou Drive Kitchener, ON N2C 1S2

2. Toxic Substance Accounting Summary

Facility-wide Amounts of Toxic Substances Reported for 2017:

Substance Name	Used	Created	Contained In Product	Release to Air	Disposed / Recycled
Chromium (and its compounds)	10 to 100	--	1 to 10	0 to 1	10 to 100
Copper (and its compounds)	10 to 100	--	1 to 10	0 to 1	1 to 10
Nickel (and its compounds)	10 to 100	--	1 to 10	0 to 1	10 to 100
Particulate Matter 2.5 (PM2.5)	--	0 to 1	--	0 to 1	--
Particulate Matter 10 (PM10)	--	0 to 1	--	0 to 1	--

NOTE: Units are expressed in tonnes, unless otherwise indicated. '--' indicates not applicable.

3. Quantification Comparison to Previous Year

3.1 Chromium (and its compounds)

	Unit	2017	2016	Change (Unit)	Change (%)	Rationale for Change
Used	Tonnes	10 to 100	10 to 100	↓ 1 to 10	↓ 23.6	Decreased usage in materials containing Cr.
Created	--	--	--	--	--	--
Contained In Product	Tonnes	1 to 10	10 to 100	↓ 10 to 100	↓ 61.7	Mass balance based on recycling data.
Release to Air	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 34.9	Added welding emissions and increased production.
Release to Water	--	--	--	--	--	--
On-site Disposal	--	--	--	--	--	--
Transferred for Disposal	--	--	--	--	--	--
Transferred for Recycling	Tonnes	10 to 100	1 to 10	↑ 1 to 10	↑ 140.8	Increase in total scrap recycled due to increased production.

3.2 Copper (and its compounds)

	Unit	2017	2016	Change (Unit)	Change (%)	Rationale for Change
Used	Tonnes	10 to 100	NR	--	--	First year reporting Copper due to increase usage of Aluminum bronze. NR = not reportable
Created	--	--	NR	--	--	
Contained In Product	Tonnes	1 to 10	NR	--	--	
Release to Air	Tonnes	0 to 1	NR	--	--	
Release to Water	--	--	NR	--	--	
On-site Disposal	--	--	NR	--	--	
Transferred for Disposal	--	--	NR	--	--	
Transferred for Recycling	Tonnes	1 to 10	NR	--	--	

3.3 Nickel (and its compounds)

	Unit	2017	2016	Change (Unit)	Change (%)	Rationale for Change
Used	Tonnes	10 to 100	10 to 100	↑ 0 to 1	↑ 1.8	No significant change.
Created	--	--	--	--	--	--
Contained In Product	Tonnes	1 to 10	10 to 100	↓ 1 to 10	↓ 49.9	Mass balance based on recycling data.
Release to Air	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 64.1	Added welding emissions and increased production.
Release to Water	--	--	--	--	--	--
On-site Disposal	--	--	--	--	--	--
Transferred for Disposal	--	--	--	--	--	--
Transferred for Recycling	Tonnes	10 to 100	1 to 10	↑ 1 to 10	↑ 218.4	Increase in total scrap recycled and increased production.

3.4 Particulate Matter (PM2.5)

	Unit	2017	2016	Change (Unit)	Change (%)	Rationale for Change
Used	--	--	--	--	--	No significant change.
Created	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 1.2	
Contained In Product	--	--	--	--	--	
Release to Air	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 1.2	
Release to Water	--	--	--	--	--	
On-site Disposal	--	--	--	--	--	
Transferred for Disposal	--	--	--	--	--	
Transferred for Recycling	--	--	--	--	--	

3.5 Particulate Matter (PM10)

	Unit	2017	2016	Change (Unit)	Change (%)	Rationale for Change
Used	--	--	--	--	--	No significant change.
Created	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 1.7	
Contained In Product	--	--	--	--	--	
Release to Air	Tonnes	0 to 1	0 to 1	↑ 0 to 1	↑ 1.7	
Release to Water	--	--	--	--	--	
On-site Disposal	--	--	--	--	--	
Transferred for Disposal	--	--	--	--	--	
Transferred for Recycling	--	--	--	--	--	

4. Objectives

Canada Alloy Castings prides itself on technological innovation in order to produce high quality products in an environmentally responsible manner. This plan will determine the technical and economic feasibility of each identified option to determine which, if any, are viable for implementation at this time. As part of the continuous improvement practices at the facility, technical advances will be monitored for new opportunities for reduction.

5. Progress in Implementing Plan

This section does not apply since no feasible reduction options are available for implementation at this time.

For information on on-site releases from the facility, as well as disposal and off-site recycling information please refer to National Pollutant Release Inventory's website: <http://www.ec.gc.ca/inrp-npri/>.

6. Highest Ranking Certification

The original copy of the signed certification of the annual report is kept on file at the facility.

Annual Report Certification Statement

As of 16/05/2018, I, Russ Urry, 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 - 04	Chromium (and its compounds)
NA - 06	Copper (and its compounds)
NA - 11	Nickel (and its compounds)
NA - M09	PM10 - Particulate Matter
NA - M10	PM2.5 - Particulate Matter

2017 TRA Reporting - Public Report

Company Name

Inossman North American Corp.

Highest Ranking Employee

Russ Urry

Report Submitted by

Russ Urry

Website address

<http://www.envirolum.com/canada-alloy-castings.html>

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.