

Toxics Reduction Act Public Annual Report Calendar 2014

The legal and trade names of the owner and the operator of the facility, the street address of the facility and, if the mailing address of the facility is different from the street address, the mailing address.(See below)

Asahi Refining Canada Limited 130 Glidden Road Brampton ON L6W 3M8

Facility NPRI identification number

000003991

The identification number assigned to the facility by the Ministry of the Environment for the purposes of Ontario Regulation 127/01.

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Number of full-time employees

127

North American Industry Classification System (NAICS) - 2, 4, and 6 digit codes

31 - 33 Manufacturing 3314 - Non-Ferrous (exc. Al) Production & Processing 331410 - Non-Ferrous (except Al) Smelting & Refining

If applicable, the name, position and telephone number of the individual who is the contact at the facility for the public:
Public Contact (if applicable)

Andy Calovini
Environmental, Health and Safety Manager
905-454-6851

Title

Phone Number

Address of each person below if not the same as the facility

Facility Name

Address 1

Address 2

City

Province

Postal Code

Precious Metals Division
130 Glidden Road
Brampton
ON
L6W 3M8

UTM coordinates, x and y

Datum

X	603005	Y	4838353
			WGS84

Legal name of Canadian parent company, if your facility is a subsidiary of a Canadian parent company

Parent company name

Address 1

Address 2

City

Province

Postal Code

Percent Ownership

Asahi Refining Canada Limited
130 Glidden Road
Brampton
ON
L6W 3M8
100%

Substance Accounting

Substance:
CAS Number:

Chlorine
7782-50-5

On a facility-wide basis:

Amount that entered the facility as the substance itself or as a constituent of another substance:

Amount Units

The amount of substance that was created:

The amount of substance that was contained in product:

>10 to 100	tonnes
0.000	tonnes
0.000	tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:
CAS Number:

Copper and its compounds
NA - 06

On a facility-wide basis:

Amount that entered the facility as the substance itself or as a constituent of another substance:

Amount Units

The amount of substance that was created:

The amount of substance that was contained in product:

>10 to 100	tonnes
0.000	tonnes
>10 to 100	tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:
CAS Number:

Hydrochloric Acid
7647-01-0

On a facility-wide basis:

Amount that entered the facility as the substance itself or as a constituent of another substance:

Amount Units

The amount of substance that was created:

The amount of substance that was contained in product:

>100 to 1,000	tonnes
0.000	tonnes
0.000	tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:
CAS Number:

Nitrate ion (in solution at a pH of 6.0 or greater)
NA - 17

On a facility-wide basis:

Amount that entered the facility as the substance itself or as a constituent of another substance:

Amount Units

The amount of substance that was created:

The amount of substance that was contained in product:

>100 to 1,000	tonnes
0.000	tonnes
0.000	tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance Accounting

Substance:

Nitric Acid

CAS Number:

7697-37-2

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>100 to 1,000 tonnes

The amount of substance that was created:

0.000 tonnes

The amount of substance that was contained in product:

0.000 tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:

Silver and its compounds

CAS Number:

NA - 13

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>100 to 1,000 tonnes

The amount of substance that was created:

0.000 tonnes

The amount of substance that was contained in product:

>100 to 1,000 tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:

Zinc and its compounds

CAS Number:

NA - 14

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>10 to 100 tonnes

The amount of substance that was created:

0.000 tonnes

The amount of substance that was contained in product:

>10 to 100 tonnes

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:

Arsenic and its compounds

CAS Number:

NA - 02

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>1,000 to 10,000 kg

The amount of substance that was created:

0.000 kg

The amount of substance that was contained in product:

>1,000 to 10,000 kg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance Accounting

Substance:

Cadmium and its compounds

CAS Number:

NA - 03

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>1,000 to 10,000 kg

The amount of substance that was created:

0.000 kg

The amount of substance that was contained in product:

>100 to 1,000 kg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:

Lead and its compounds

CAS Number:

NA - 08

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>10,000 to 100,000 kg

The amount of substance that was created:

0.000 kg

The amount of substance that was contained in product:

>1,000 to 10,000 kg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:

Selenium and its compounds

CAS Number:

NA - 12

On a facility-wide basis:

Amount

Units

Amount that entered the facility as the substance itself or as a constituent of another substance:

>1,000 to 10,000 kg

The amount of substance that was created:

0.000 kg

The amount of substance that was contained in product:

>1,000 to 10,000 kg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Annual Progress Report - Calendar 2014

Substances for which toxic substance reduction plans have been prepared:

Substance	CASRN
Chlorine	7782-50-5
Copper and its compounds	NA - 06
Hydrochloric Acid	7647-01-0
Silver and its compounds	NA - 13
Zinc and its compounds	NA - 14
Arsenic and its compounds	NA - 02
Cadmium and its compounds	NA - 03
Lead and its compounds	NA - 08
Selenium and its compounds	NA - 12
Nitrate ion (in solution at a pH of 6.0 or greater)	NA-17
Nitric Acid	7697-37-2

Plan Objectives

Asahi Refining Canada Limited's goal is to reduce the use and release of the above noted substances where technically and economically feasible. Based on currently available information and technologies, there are no technically and economically reduction options currently available for these substance. However, Asahi will continue to explore and investigate potential options as they arise as part of their sustainability program. It is also important to note that many of these substances are naturally occurring in trace amounts in many of the materials received and processed by the facility (e.g., primary doré) and that most current research seeks to abate these emissions using end of pipe controls.

Toxics Reduction Progress

Variations in the reported quantities of all substances were observed during the reporting period relative to the previous year due in part to the overall increase in production rate at the facility. In cases where decreases are noted, these quantities are due to differences in the concentrations of these substances in the feedstock materials processed by the facility. The general decrease in the quantity of substances released to water is directly related to the decreased quantity of wastewater released from the effluent treatment operations. Similarly, there was also a reduction in the quantity of effluent treatment filter cake sent off-site for recycling due in part to upgrades made to the filter presses in the previous calendar year.

As with previous assessments, the quantity of metals contained in final product is based on a mass balance approach in which the difference between the total metal processed less the total quantity of that metal released was deemed to be contained in the final product. Since the amounts of Silver, Copper, Selenium, Cadmium and Zinc processed increased in 2014 the quantities of metals contained in the final product also increased in 2014. Lead and Arsenic processing totals decreased from 2014 which resulted in less used and in product. Note that the quantities of these same metals in the materials received and processed are, in many cases, based on average concentrations of these substances in the various feedstock materials received and processed by the facility. However, the information is still considered to be the best available for completing the annual assessments.

Plan Implementation Progress

There were no reduction options identified in any of the plans for the above noted substances that were identified as being both technically and economically feasible. As such, there were no timelines presented in the reduction plans for the above noted substances. However, Asahi Refininf Canda Limited will continue to explore and investiage potential reduction options as they arise as part of their sustainability program.

As there were no anticipated reductions noted in each of the plans for the toxic substances noted above, there were no reductions of any toxic substances during the reporting period that would be attributable to any reduction plan.

Certification Statement

As of June 1, 2015, I certify that I have read the reports on the toxic substance reduction plans for Chlorine, Copper (and its compounds), Hydrochloric Acid, Nitrate Ion, Nitric Acid, Silver (and its compounds), Zinc (and its compounds), Arsenic (and its compounds), Cadmium (and its compounds), Lead (and its compounds) and Selenium (and its compounds) 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 the Act.

The original version of this report is signed off by: Highest Ranking Employee:

Title:

Phone Number:

Dave Murray
Operations Manager
905-454-6897