



2016 TOXICS REDUCTION ACT

Report on Toxic Substance Accounting Requirements

VERSION 1.1

Petro-Canada Lubricants Inc.
385 Southdown Road
Mississauga, Ontario
L5J 2Y3

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Version Control

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1.0 INTRODUCTION

Petro-Canada Lubricants Inc. (PCLI), a HollyFrontier company, is a world-scale supplier of products ranging from automobile lubricants to white oils for the pharmaceutical market. Finished goods are shipped nationally and internationally to customers familiar with our growing reputation for high quality, environment-friendly fluids.

The Lubricants Centre is located on the shore of Lake Ontario beside a residential community in Mississauga, Ontario.

Protection of the environment is a fundamental PCLI value. It is our responsibility to determine and manage the impacts of our business through programs like the Toxics Reduction Act (Act).

This annual toxics substance accounting report has been prepared to meet the regulatory obligations specified in Section 10 of the Act and has been prepared in accordance with the requirements of Section 27(1) of Ontario Regulation (O. Reg.) 455/09, as amended from time to time. It summarizes the relevant reporting requirements and will be updated, as required by the Act and O. Reg. 455/09.

For more information on the Act and O. Reg. 455/09 visit: <https://www.ontario.ca/page/toxics-reduction-program>.



2.0 REPORTING CRITERIA

Section 3(1) of the Act specifies the criteria requiring the preparation of a toxic substance plan. These criteria are as follows:

3. (1) The owner and the operator of a facility shall ensure that a toxic substance reduction plan is prepared for a toxic substance in accordance with this Act and the regulations if all of the following criteria are met:

- 1. The facility belongs to a class of facilities prescribed by the regulations.*
- 2. The number of persons employed at the facility exceeds the number of persons prescribed by the regulations.*
- 3. The toxic substance is used or created at the facility and the amounts of the substance that are used or created meet the criteria prescribed by the regulations.*
- 4. Such other criteria as are prescribed by the regulations. 2009, c. 19, s. 3 (1).*

Specific criteria are outlined in O. Reg. 455/09. The following sections detail the criteria and applicability to the PCLI facility.

2.1 Class of Facility

Section 4(1) of O. Reg. 455/09 specifies the types of facilities subject to toxic substance reduction planning and includes facilities that begin in North American Industry Classification System code “31”, “32” or “33” and “212”.

The PCLI facility carries out processes and activities related to “Petroleum and Coal Product Manufacturing”, which begins in NAICS code “32”, which is a code identified in O. Reg. 455/09.

2.2 Number of Persons

Section 5 of O. Reg. 455/09 specifies the numbers of persons at a facility must be greater than zero. As of December 31, 2016, the PCLI facility employed 430 persons.

2.3 Amounts of Toxic Substance Used or Created

Section 6 of O. Reg. 455/09 specifies that amounts of a toxic substance used or created must exceed zero. The use or creation of toxic substances for which accounting is required is greater than zero (refer to Section 4).



2.4 Other Criteria

Section 7(1) of O. Reg. 455/09 requires the owner and operator of a facility provide information on National Pollutant Release Inventory (NPRI) substances if reporting to the NPRI is required; or if the substance is acetone and reporting under Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting) made under the Environmental Protection Act applies.

In 2016, PCLI was required to report to the NPRI. Specifically, PCLI met the reporting requirements for the following substances listed in Schedule A of O. Reg. 455/09:

NPRI Part 1A Substances:

- 1,2,4-Trimethylbenzene
- Asbestos
- Benzene
- Biphenyl
- Cyclohexane
- Diethanolamine
- Ethylbenzene
- Hexane (-n)
- Hydrogen Sulphide
- Methanol
- Methyl Ethyl Ketone
- Molybdenum Trioxide
- Naphthalene
- Nickel compounds
- Propylene
- Sulphuric Acid
- Toluene
- Total Reduced Sulphur
- Xylene (all isomers)
- Zinc compounds

NPRI Part 4 Substances:

- Carbon Monoxide
- Nitrogen Oxides
- Total Particulate Matter
- PM10 - Particulate Matter <10 Microns
- PM2.5 - Particulate Matter <2.5 Microns
- Sulphur Dioxide



NPRI Part 5 Substances:

- Butane (all isomers)
- Hexane (-n) (*also reported as a Part 1A Substance*)
- Isopropyl Alcohol
- Methanol (*also reported as a Part 1A Substance*)
- Methyl Ethyl Ketone (*also reported as a Part 1A Substance*)
- Propane
- Propylene (*also reported as a Part 1A Substance*)
- Pentane (all isomers)
- Toluene (*also reported as a Part 1A Substance*)



3.0 GENERAL FACILITY INFORMATION

Table 3-1 summarizes the general facility information with reference to the Act and/or O. Reg. 455/09.

Table 3-1: General Facility Information

Reporting Requirement	Facility Information	Reference to Act and/or O. Reg. 455/09
Parent Company Name	HollyFrontier Corporation	O. Reg. 455/09 s.18(2) subparagraph 14
Parent Company Address	2828 N. Harwood, Suite 1300 Dallas, TX 75201	O. Reg. 455/09 s.18(2) subparagraph 14
Facility Name	Mississauga Lubricants Centre	O. Reg. 455/09 s.18(2) subparagraph 4
Facility Address	385 Southdown Road Mississauga, Ontario L5J 2Y3	O. Reg. 455/09 s.18(2) subparagraph 4
Universal Transverse Mercator (UTM) in North American Datum (NAD83)	Zone 17 X [m] 612097 Y [m] 4817199	O. Reg. 455/09 s.18(2) subparagraph 13
National Pollutant Release Inventory Identification Number	3899	O. Reg. 455/09 s.18(2) subparagraph 2
Ontario Regulation 127/01 Identification Number	5119	O. Reg. 455/09 s.18(2) subparagraph 3
Two Digit North American Industry Classification System (NAICS) Code	32 – Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Four Digit North American Industry Classification System (NAICS) Code	3241 – Petroleum and Coal Product Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Six Digit North American Industry Classification System (NAICS) Code	324190 – Other Petroleum and Coal Product Manufacturing CAN	O. Reg. 455/09 s.18(2) subparagraph 6
Number of Full-time Employee Equivalents at the Facility	432 (as of December 31, 2016)	O. Reg. 455/09 s.18(2) subparagraph 5
Facility Public Contact	Corinn Smith Manager, Global Communications & Stakeholder Relations 2310 Lakeshore Road W Mississauga, Ontario, L5J 1K2 Tel: 905-491-0397 Email:corinn.smith@petrocanadalsp.com	O. Reg. 455/09 s.18(2) subparagraph 7



4.0 SUBSTANCE REPORTING

In accordance with s. 26(1) subparagraphs 2 and 7, PCLI made determinations for each substance reportable under the Act as follows:

- 1) The amount of the substance that enters a process as the substance itself or as a constituent of another substance.
- 2) The amount of the substance that is created.
- 3) If the substance is a NPRI substance,
 - i. quantifications relating to its release, disposal and transfer that,
 - A. are required to be provided under the NPRI Notice, or
 - B. are determined through mass balance, published emission factors, site specific emission factors or engineering estimates, if no quantifications were required to be provided under the NPRI Notice, and
 - ii. the amount of the substance that is contained in product, other than a substance that is identified as a criteria air contaminant or a volatile organic compound in the NPRI Notice.
- 4) If the toxic substance is acetone, the calculations mentioned in subsection 4 (3) of Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting) made under the Environmental Protection Act.

For the purposes of maintaining confidentiality, PCLI has reported 'Use', 'Created" and 'Contained in Product' quantities in the bands and ranges prescribed by the Ontario Ministry of the Environment. The band and ranges specified by the Ontario Ministry of the Environment are summarized as follows:

- >0 to 1
- >1 to 10
- >10 to 100
- >100 to 1,000
- >1,000 to 10,000
- >10,000 to 100,000
- >100,000 to 1,000,000

The units of measure depend upon the substance being reported under the NPRI and O. Reg. 127/01. Generally, release, disposal and recycling quantities are reported in tonnes. However, for substances with alternate reporting thresholds, these quantities are reported in kilograms or grams.

- NPRI Part 1A – Substances listed at the original NPRI threshold [tonnes]
- NPRI Part 1B – Metals listed at an alternate threshold [kilograms]
- NPRI Part 2 – Polycyclic aromatic compounds (PAHs), [kilograms]
- NPRI Part 3 – Hexachlorobenzene (HCB), Dioxins/furans (toxic equivalent), [grams]
- NPRI Part 4 – Criteria Air Contaminants (CACs) [tonnes]
- NPRI Part 5 – Speciated volatile organic compounds [tonnes]
- O. Reg. 127/01 – Acetone [tonnes]



The following sections summarize the information outlined above for each substance.

Note:

'—' is equal to zero in the tables below.

'0.0000' is a value greater than zero and greater than four (4) decimal places.

4.1 1,2,4-Trimethylbenzene (CAS Number 95-63-6)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-14%	-284.78	Decrease in production level
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-12%	-665.74	Decrease in production level
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-13%	-950.53	Decrease in production level
Air Releases (tonnes)	0.0599	0.0548	9%	0.0051	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.2 Asbestos (CAS Number 1332-21-4)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	—	—	—	—	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	2.37	28.4400	-92%	-26.07	Less asbestos was removed from site as part of our asbestos abatement program
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.3 Benzene (CAS Number 71-43-2)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-267.37	Decrease in production level
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-13%	-1575.23	Decrease in production level
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-13%	-1842.76	Decrease in production level
Air Releases (tonnes)	0.5017	0.3248	54%	0.1769	Higher emission from Platformate loading
Water Releases (tonnes)	0.0251	0.0053	347%	0.0198	Higher release due to upset condition on-site
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.4 Biphenyl (CAS Number 92-52-4)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-1%	-39.74	No significant change
Created (tonnes)	>0 to 1	>0 to 1	12%	0.0007	Increase in production
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-16%	-367.89	Decrease in Platformate production
Air Releases (tonnes)	0.0110	0.0102	8%	0.0008	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.5 Cyclohexane (CAS Number 110-82-7)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-736.22	Decrease in production level
Created (tonnes)	>100 to 1,000	>100 to 1,000	-16%	-36.73	Decrease in production level
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-14%	-510.64	Decrease in production level
Air Releases (tonnes)	0.1087	0.1115	-2%	-0.0028	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.6 Diethanolamine (CAS Number 111-42-2)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	56%	28.14	Increase in production
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	0.2047	0.1814	13%	0.023	Emission is calculated based on operating hours. Turnaround in 2015 resulting in less hours.
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.7 Ethylbenzene (CAS Number 100-41-4)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-208.1	Decrease in production level
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-12%	-444.86	Decrease in production level
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-13%	-652.94	Decrease in production level
Air Releases (tonnes)	0.1533	0.1447	6%	0.0086	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change





4.8 Hexane (-n) (CAS Number 110-54-3)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-1302.69	Decrease in production level
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-10%	-595.08	Decrease in production level
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-6%	-709.29	No significant change
Air Releases (tonnes)	5.0947	4.5676	12%	0.5271	Increase in combustion releases resulted in higher emissions.
Water Releases (tonnes)	—	—	N/A	N/A	No significant change
Land Releases (tonnes)	—	—	N/A	N/A	No significant change
On-site Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Treatment (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Recycling (tonnes)	—	—	N/A	N/A	No significant change



4.9 Hydrogen Sulphide (CAS Number 7783-06-4)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	-99%	-0.794	Normal usage in 2016 vs higher usage in 2015 due to turnaround
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	1%	198.41	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	-13%	-0.06	Less liquid Sulphur in 2016
Air Releases (tonnes)	0.8260	0.8057	3%	0.0203	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change





4.10 Methanol (CAS Number 67-56-1)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-30%	-7.1321	Less methanol used due to mild winter
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	3.2559	4.6874	-31%	-1.4315	Less methanol used due to mild winter
Water Releases (tonnes)	—	—	N/A	N/A	No significant change
Land Releases (tonnes)	—	—	N/A	N/A	No significant change
On-site Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Treatment (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Recycling (tonnes)	—	—	N/A	N/A	No significant change



4.11 Methyl Ethyl Ketone (CAS Number 78-93-3)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-42%	-240.1	No turnaround in 2016, resulting in lower usage
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	1.5194	73.3591	-98%	-71.8397	MEK release to air due to a process upset in 2015; no major upset in 2016
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.12 Molybdenum Trioxide (CAS Number 1313-27-5)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-38%	-13.03	No catalyst handling in 2016
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	—	—	—	—	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	0.1158	7.2857	-99%	-7.1699	No catalyst handling in 2016
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.13 Naphthalene (CAS Number 91-20-3)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	17%	749.63	Increase in production level
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	>100 to 1,000	>100 to 1,000	21%	64.70	No significant change
Air Releases (tonnes)	0.0420	0.0581	-28%	-0.0161	Lower fugitive emission in 2016
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.14 Nickel (CAS Number, Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-61%	-16.86	No catalyst handling in 2016
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	0.1008	0.1211	-17%	-0.0203	Lower boiler emission
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	0.0000	0.0001	-64%	-0.0001	No catalyst handling in 2016
Transferred for Disposal (tonnes)	—	8.6085	-100%	-8.6085	No catalyst handling in 2016
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	8.1777	-100%	-8.1777	No catalyst handling in 2016



4.15 Propylene (CAS Number 115-07-1)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-42%	-112.13	Turnaround in 2015 resulting in more use; normal usage in 2016
Created (tonnes)	>1 to 10	>1 to 10	-5%	-0.10	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	32.4933	27.3145	19%	5.1788	Increased production time
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.16 Sulphuric Acid (CAS Number 7664-93-9)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	40%	24.16	More usage due to cooling tower upset
Created (tonnes)	>10 to 100	>10 to 100	22%	4.54	Increased boiler operation
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	25.0158	20.4760	22%	4.5398	Increased boiler operation
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.17 Toluene (CAS Number 108-88-3)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-960.71	Decrease in production level
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-12%	-3325.54	Decrease in production level
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-13%	-4189.76	Decrease in production level
Air Releases (tonnes)	1.7195	1.4793	16%	0.2401	Higher emission from Platformate loading
Water Releases (tonnes)	0.0072	0.0063	14%	0.0009	Higher release due to upset condition on-site
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.18 Total Reduced Sulphur (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	-99%	-0.794	Normal usage in 2016 vs higher usage in 2015 due to turnaround
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	1%	198.41	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	-13%	-0.06	Less liquid Sulphur in 2016
Air Releases (tonnes)	0.8260	0.8057	3%	0.0203	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.19 Xylene (CAS Number 1330-20-7)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-15%	-980.52	Decrease in production level
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-13%	-1512.76	Decrease in production level
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-13%	-2493.21	Decrease in production level
Air Releases (tonnes)	0.4692	0.4180	12%	0.0512	Higher emission from Platformate loading
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change



4.20 Zinc (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-9%	-12.18	No significant change
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	>100 to 1000	>100 to 1000	-6%	-7.06	No significant change
Air Releases (tonnes)	0.1096	0.1064	3%	0.0032	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	1.7061	6.8151	-75%	-5.1090	Small amounts of catalyst leftover from 2015 Turnaround was disposed in 2016
Transferred for Recycling (tonnes)	0	0.0138	-100%	-0.0138	No catalyst handling in 2016

4.21 Carbon Monoxide (CAS Number 630-08-0)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>10 to 100	>10 to 100	12%	7.44	Increased consumption of fuel gas.
Air Releases (tonnes)	69.4025	61.9582	12%	7.4443	Increased consumption of fuel gas.

4.22 Nitrogen Oxides (CAS Number 11104-93-1)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	8%	46.33	No significant change
Air Releases (tonnes)	619.5556	573.2224	8%	46.3332	No significant change

4.23 Total Particulate of Matter (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	>10 to 100	-100%	-21.09	Reorganized PM "Used" into PM "Created"..
Created (tonnes)	>10 to 100	>10 to 100	57%	16.24	Reorganized PM "Used" into PM "Created". Less combustion emissions due to reduced fuel oil consumption.
Air Releases (tonnes)	44.9578	49.8121	-10	-4.8543	Less fuel consumption

4.24 PM10 – Particulate Matter <10 Microns (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	>1 to 10	-100%	-2.51	Reorganized PM "Used" into PM "Created".
Created (tonnes)	>10 to 100	>10 to 100	-2%	-0.39	Less fuel consumption
Air Releases (tonnes)	20.8873	23.7874	-12%	-2.9	Less fuel consumption

4.25 PM2.5 – Particulate Matter <2.5 Microns (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	>0 to 1	-100%	-0.184	Reorganized PM "Used" into PM "Created".
Created (tonnes)	>1 to 10	>10 to 100	-10%	-1.46	Less fuel consumption
Air Releases (tonnes)	12.4560	14.1002	-12%	-1.6442	Less fuel consumption



4.26 Sulphur Dioxide (CAS Number 7446-09-5)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	23%	158.19	More SO ₂ generated in the SRU
Air Releases (tonnes)	857.0981	698.9074	23%	158.1907	Higher SO ₂ emissions from the SRU in 2016

4.27 Butane (all isomers) (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-22%	-120.87	Decrease in production level
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	10%	538.51	No significant change
Air Releases (tonnes)	7.4758	7.3222	2%	0.1536	Lower boiler emission



4.29 Isopropyl Alcohol (CAS Number 67-63-0)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>1 to 10	>1 to 10	2%	0.08407	No significant change
Air Releases (tonnes)	4.0459	3.9618	2%	0.0841	No significant change

4.30 Pentane (all isomers) (CAS Number Not Applicable)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-18%	-579.84	Decrease in production level
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-3%	-252.49	No significant change
Air Releases (tonnes)	7.6555	6.7648	13%	0.8907	Higher emission from Platformate loading

4.31 Propane (CAS Number 74-98-6)

Required Information	2016 Reporting Year	2015 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-11%	-40.61	Less fuel consumption
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	19%	405.08	More propane generated from #1HTU due to increase in production
Air Releases (tonnes)	5.9520	5.7628	3%	0.1892	No significant change





5.0 TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

As described in the Toxic Substance Reduction Plan Summaries dated [December 1, 2013](#) and [December 3, 2012](#), there were no options identified for implementation, above and beyond the actions the Lubricants Centre has already taken, at this time. The plan will be reviewed in accordance with the Act and regulation, at which time, new options may be identified and considered for implementation.

Finally, there have been no amendments to the Toxic Substance Reduction Plan Summaries dated December 1, 2013 and December 3, 2012.





6.0 ANNUAL CERTIFICATION STATEMENT

In accordance with s. 19 of O. Reg. 455/09, the highest ranking employee at the facility electronically certified the toxic substance plan. A copy of the electronic certification is provided in Attachment 1.





Attachment 1: Copy of Electronic Certification



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

Petro-Canada Lubricants Inc.

Certifying Official (or authorized delegate)

J Gordon Pinard

Report Submitted by

J Gordon Pinard

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 31/05/2018, I, J Gordon Pinard, 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
95-63-6	1,2,4-Trimethylbenzene
1332-21-4	Asbestos (friable form only)
71-43-2	Benzene
92-52-4	Biphenyl
NA - 24	Butane (all isomers)
630-08-0	Carbon monoxide
110-82-7	Cyclohexane
111-42-2	Diethanolamine (and its salts)
100-41-4	Ethylbenzene
7783-06-4	Hydrogen sulphide
67-63-0	Isopropyl alcohol
67-56-1	Methanol
78-93-3	Methyl ethyl ketone
1313-27-5	Molybdenum trioxide
91-20-3	Naphthalene
110-54-3	n-Hexane
NA - 11	Nickel (and its compounds)
11104-93-1	Nitrogen oxides (expressed as NO2)
NA - 35	Pentane (all isomers)
NA - M09	PM10 - Particulate Matter <= 10 Microns
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns
74-98-6	Propane
115-07-1	Propylene
7446-09-5	Sulphur dioxide
7664-93-9	Sulphuric acid
108-88-3	Toluene
NA - M08	Total Particulate Matter

NA - M14

Total reduced sulphur (expressed as hydrogen sulphide)

1330-20-7

Xylene (all isomers)

NA - 14

Zinc (and its compounds)

Company Name

Petro-Canada Lubricants Inc.

Highest Ranking Employee

J Gordon Pinard

Report Submitted by

J Gordon Pinard

Website address

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
2016	31/05/2018	Mississauga Lubricants Centre	Ontario	Mississauga	NPRI,ON MOE TRA,NFPRER

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: 3.14.0



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