

#### **2015 TOXICS REDUCTION ACT**

# Report on Toxic Substance Accounting Requirements

**VERSION 1.0** 

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

July 2016



\*Marque do commente Préto-Carada: - Systemak



### **Version Control**

Version	Date Issued	Modifications
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#### 1.0 INTRODUCTION

Petro-Canada Lubricants Inc. (PCLI), a Suncor Energy business, 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: <a href="http://www.ontario.ca/environment-and-energy/toxic-substance-reduction-planner-licence">http://www.ontario.ca/environment-and-energy/toxic-substance-reduction-planner-licence</a>.



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#### 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, 2015, the PCLI facility employed 432 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).



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#### 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 2015, 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
- 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</p>
- PM2.5 Particulate Matter <2.5 Microns
- Sulphur Dioxide



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#### 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** 

Table 3-1: General Facility Information						
Reporting Requirement	Facility Information	Reference to Act and/or O. Reg. 455/09				
Parent Company Name	Suncor Energy Inc.	O. Reg. 455/09 s.18(2) subparagraph 14				
Parent Company Address	150 6 <sup>th</sup> Avenue Southwest Calgary, Alberta T2P 3E3	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)	X [m] 612417.51 Y [m] 4817383.76	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, 2015)	O. Reg. 455/09 s.18(2) subparagraph 5				
Facility Public Contact	Joel Thompson Director, Corporate Communications 150 6 <sup>th</sup> Avenue Southwest Calgary, Alberta T2P 3E3 Tel: 403-296-6637 Email: jjthompson@suncor.com	O. Reg. 455/09 s.18(2) subparagraph 7				



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#### 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]



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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	2015	2014	Change	Change	Rationale For Change
·	Reporting Year	Reporting Year	(%)	(tonnes)	
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	4%	69.2315	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	348.7058	No significant change
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	6%	417.9435	No significant change
Air Releases (tonnes)	0.0548	0.0610	-10%	-0.0062	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	2015 Reporting Year	2014 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)	28.4400	17.9800	58%	10.4600	More 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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	86.5612	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	7%	781.3852	No significant change
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	7%	867.4167	No significant change
Air Releases (tonnes)	0.3248	0.0359	-5%	-0.0154	No significant change
Water Releases (tonnes)	0.0053	0.0057	-7%	-0.0004	No significant change
Land Releases (tonnes)	_	_	ı	_	No significant change
On-site Disposal (tonnes)	_	_	ı	_	No significant change
Transferred for Disposal (tonnes)	_	_	ı	_	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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	289.8879	No significant change
Created (tonnes)	>0 to 1	>0 to 1	-10%	-0.0007	No significant change
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	12%	244.9032	Increase in production
Air Releases (tonnes)	0.0102	0.0109	-6%	-0.0007	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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	4%	183.2494	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	40%	66.5952	Increase in production
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	4%	135.0755	No significant change
Air Releases (tonnes)	0.1115	0.1985	-44%	-0.0870	Higher repair success rate in LDAR for some units resulting in less fugitive emissions
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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-1%	-0.6850	No significant change
Created (tonnes)	_	_	_	_	No significant change
Contained in Product (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	0.1814	0.2044	-11%	-0.0230	Higher repair success rate in LDAR for some units resulting in less fugitive emissions
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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	67.3362	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	235.4409	No significant change
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	6%	302.3557	No significant change
Air Releases (tonnes)	0.1447	0.1470	-2%	-0.0023	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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	4%	324.8300	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	267.0635	No significant change
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-5%	-659.9782	No significant change
Air Releases (tonnes)	4.5676	4.9238	-7%	-0.3561	No significant change
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	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	42%	0.2395	Turnaround in 2015 resulting in greater throughput through slop tanks.
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-1%	-99.9034	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	14%	0.0600	Slightly more liquid Sulphur in 2015 compared to 2014
Air Releases (tonnes)	0.8057	0.5664	42%	0.2393	Turnaround in 2015 resulting in greater throughput through slop tanks leading to more emissions of H2S
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 Methyl Ethyl Ketone (CAS Number 78-93-3)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	39%	159.8500	Turnaround in 2015 and a release to air resulting in higher usage
Created (tonnes)	_	_	_	_	No significant change
Contained in Product (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	73.3591	3.2280	2173%	70.1311	MEK release to air due to a process upset
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



### 4.11 Molybdenum Trioxide (CAS Number 1313-27-5)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	131%	19.6168	More catalyst containing molybdenum trioxide handled in 2015 due to a Turnaround
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)	_	_	_	_	No significant change
Transferred for Recycling (tonnes)	13.1475	0.00	_	13.1475	No catalyst containing molybdenum trioxide was recycled in 2014.



### 4.12 Naphthalene (CAS Number 91-20-3)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	20%	740.9175	Increase in production
Created (tonnes)	_	_	_	_	No significant change
Contained in Product (tonnes)	>100 to 1,000	>100 to 1,000	1%	3.3186	No significant change
Air Releases (tonnes)	0.0581	0.0595	-2%	-0.0014	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



### 4.13 Nickel (CAS Number, Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	115%	14.8509	More catalyst containing nickel handled in 2015 due to a Turnaround
Created (tonnes)	_	_	_	_	No significant change
Contained in Product (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	0.1211	0.1336	-9%	-0.0125	No significant change
Water Releases (tonnes)	_	_	_	_	No significant change
Land Releases (tonnes)	_	_	_	_	No significant change
On-site Disposal (tonnes)	0.0001	0.0001	0%	0.00	No significant change
Transferred for Disposal (tonnes)	8.6085	_	_	8.6085	No catalyst containing nickel was disposed in 2014
Transferred for Treatment (tonnes)	_	_	_	_	No significant change
Transferred for Recycling (tonnes)	8.1777	-	_	8.1777	No catalyst containing nickel was recycled in 2014



### 4.14 Propylene (CAS Number 115-07-1)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	78%	116.3649	Turnaround in 2015 resulting in more use
Created (tonnes)	>1 to 10	>1 to 10	-38%	-1.3099	Decrease in charge rate to unit that produces LPG
Contained in Product (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	27.3145	28.5205	-4%	-1.2060	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



### 4.15 Sulphuric Acid (CAS Number 7664-93-9)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-7%	-4.7200	No significant change
Created (tonnes)	>10 to 100	>10 to 100	12%	2.2033	Turnaround in 2015 resulted in more Sulphuric Acid being required during start up
Contained in Product (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	20.4760	18.2727	12.%	2.2033	Turnaround in 2015 resulted in more Sulphuric Acid being required during start up
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 Toluene (CAS Number 108-88-3)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	405.8048	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	7%	1,1710.5570	No significant change
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	6%	1,986.1765	No significant change
Air Releases (tonnes)	1.4793	3.0553	-51.5%	-1.5707	Higher repair success rate in LDAR for some units resulting in less fugitive emissions
Water Releases (tonnes)	0.0063	0.0053	18.8%	0.001	Minor increase in Toluene release to water
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 Total Reduced Sulphur (CAS Number Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	42%	0.2395	Turnaround in 2015 resulting in greater throughput through slop tanks.
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	-1%	-99.9034	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	14%	0.0600	Minor increase attributed to Turnaround in 2015
Air Releases (tonnes)	0.8057	0.5664	42%	0.2393	Turnaround in 2015 resulting in greater throughput through slop tanks leading to more emissions of TRS
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



### 4.18 Xylene (CAS Number 1330-20-7)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	324.2629	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	9%	988.1035	No significant change
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	8%	1,303.6104	No significant change
Air Releases (tonnes)	0.4180	0.4750	-12%	-0.057	Higher repair success rate in LDAR for some units resulting in less fugitive emissions
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 Zinc (CAS Number Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	-3%	-4.5061	No significant change
Created (tonnes)	_	_	_	_	No significant change
Contained in Product (tonnes)	>100 to 1000	>100 to 1000	-9%	-11.3032	No significant change
Air Releases (tonnes)	0.1064	0.1187	-10%	-0.0123	No significant change
Water Releases (tonnes)	_	П	_	_	No significant change
Land Releases (tonnes)	_	ı	_	_	No significant change
On-site Disposal (tonnes)	_	_	_	_	No significant change
Transferred for Disposal (tonnes)	6.8151	_	_	_	No significant change
Transferred for Treatment (tonnes)	_	_	_	_	No significant change
Transferred for Recycling (tonnes)	0.0138	_	_	_	No significant change



#### 4.20 Carbon Monoxide (CAS Number 630-08-0)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	_	_	_	_	No significant change
Created (tonnes)	>10 to 100	>10 to 100	-11%	-7.4261	Less fuel consumption
Air Releases (tonnes)	>10 to 100	>10 to 100	-11%	-7.4261	Less fuel consumption

#### 4.21 Nitrogen Oxides (CAS Number 11104-93-1)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	_	_	_	_	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	-7%	-43.8940	No significant change
Air Releases (tonnes)	>100 to 1,000	>100 to 1,000	-7%	-43.8940	No significant change

#### 4.22 Total Particulate of Matter (CAS Number Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-12%	-2.9943	Less fuel consumption
Created (tonnes)	>10 to 100	>10 to 100	-4%	-1.1236	No significant change
Air Releases (tonnes)	49.8121	53.9300	-8%	-4.1179	No significant change





# 4.23 PM10 - Particulate Matter <10 Microns (CAS Number Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1 to 10	>1 to 10	-13%	-0.3734	Less fuel consumption
Created (tonnes)	>10 to 100	>10 to 100	-8%	-1.7753	No significant change
Air Releases (tonnes)	23.7874	25.9361	-8%	-2.1487	No significant change

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

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	-20%	-0.0451	Less fuel consumption
Created (tonnes)	>10 to 100	>10 to 100	-9%	-1.4591	No significant change
Air Releases (tonnes)	14.1002	15.6044	-10%	-1.5042	Less fuel consumption

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#### 4.25 Sulphur Dioxide (CAS Number 7446-09-5)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	_	_	_	_	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	14%	84.2872	More SO2 generated in the SRU
Air Releases (tonnes)	698.9074	614.6202	14%	84.2872	Higher SO2 emissions from the SRU in 2015

#### 4.26 Butane (all isomers) (CAS Number Not Applicable)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	8%	39.8195	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-13%	-797.0874	Less sour gas produced in 2015 resulting in less butane being created
Air Releases (tonnes)	7.3222	7.1931	2%	0.1291	No significant change

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### 4.28 Isopropyl Alcohol (CAS Number 67-63-0)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	_	_	-	-	No significant change
Created (tonnes)	>1 to 10	>10 to 100	-61%	-6.3123	Decrease in production levels
Air Releases (tonnes)	3.9618	10.2741	-61%	-6.3123	Decrease in production levels

### 4.29 Methanol (CAS Number 67-56-1)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	57%	8.4875	More methanol used due to a cold winter
Created (tonnes)	_	_	_	_	No significant change
Air Releases (tonnes)	4.6874	2.9947	57%	1.6927	More methanol used due to a cold winter

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

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	5%	162.6570	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	0%	-16.2841	No significant change
Air Releases (tonnes)	6.7648	7.4029	-9%	-0.6381	No significant change

#### 4.31 Propane (CAS Number 74-98-6)

Required Information	2015 Reporting Year	2014 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	4%	13.5717	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-23%	-638.8733	Decrease in charge rate to unit that produces Propane
Air Releases (tonnes)	5.7628	5.9136	-3%	-0.1508	No significant change

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#### 5.0 TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

As described in the Toxic Substance Reduction Plan Summaries dated <u>December 1, 2013</u> and <u>December 3, 2012</u>, 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.



\*Manual de commente Petro-Cardisia - Trademina s



#### 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.

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### **Attachment 1: Copy of Electronic Certification**



Version 1.0 July 2016

Specify the language of correspondence 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

Petro-Canada Lubricants Inc.

Certifying Official (or authorized delegate)

Ken Bisgrove

Report Submitted by

Gord 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 31/05/2016, I, Gord 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
100-41-4	Ethylbenzene
108-88-3	Toluene
110-54-3	n-Hexane
110-82-7	Cyclohexane
111-42-2	Diethanolamine (and its salts)
11104-93-1	Nitrogen oxides (expressed as NO2)
115-07-1	Propylene
1313-27-5	Molybdenum trioxide
1330-20-7	Xylene (all isomers)
1332-21-4	Asbestos (friable form only)
630-08-0	Carbon monoxide
67-56-1	Methanol
71-43-2	Benzene
7446-09-5	Sulphur dioxide
7664-93-9	Sulphuric acid
7783-06-4	Hydrogen sulphide
78-93-3	Methyl ethyl ketone
91-20-3	Naphthalene
92-52-4	Biphenyl
95-63-6	1,2,4-Trimethylbenzene
NA - 11	Nickel (and its compounds)
NA - 14	Zinc (and its compounds)
NA - M08	Total Particulate Matter
NA - M09	PM10 - Particulate Matter <= 10 Microns

NA - M14 Total reduced sulphur (expressed as hydrogen sulphide)

NA - M16 Volatile Organic Compounds (VOCs)

NA - M10 PM2.5 - Particulate Matter <= 2.5 Microns

News

Company Name

Petro-Canada Lubricants Inc.

Highest Ranking Employee

Gord Pinard

Report Submitted by

Gord 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
2015	31/05/2016	Mississauga	Ontario	Mississauga	NPRI,ON MOE
		Lubricants Centre			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: 3.10.0

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Report Submission and Electronic Certification					
NPRI - Electronic Statement of Certification					
Specify the language of correspondence					
English					
Comments (optional)					
I hereby certify that I have exercised due diligence to complete. The amounts and values for the facility(ies) estimates using available data. The data for the facility programs identified below using the Single Window Re I also acknowledge that the data will be made public. Note: Only the person identified as the Certifying Office report(s) identified below.	identified below are accurate, based on reasonable (ies) that I represent are hereby submitted to the eporting Application.				
Company Name					
Petro-Canada Lubricants Inc.					
Certifying Official (or authorized delegate)					
Ken Bisgrove					
Report Submitted by					
Gord Pinard					
I, the Certifying Official or authorized delegate, agree pressing the "Submit Report(s)" button, I am electronic the identified company to its affiliated programs.	3				
ON MOE TRA - Electronic Certification	on Statement				
Annual Report Certification Statemer	nt				
TRA Substance List					
CAS RN	Substance Name				
100-41-4	Ethylbenzene				

110-54-3

108-88-3

n-Hexane

Toluene

110-82-7	Cyclohexane
111-42-2	Diethanolamine (and its salts)
11104-93-1	Nitrogen oxides (expressed as NO2)
115-07-1	Propylene
1313-27-5	Molybdenum trioxide
1330-20-7	Xylene (all isomers)
1332-21-4	Asbestos (friable form only)
630-08-0	Carbon monoxide
67-56-1	Methanol
71-43-2	Benzene
7446-09-5	Sulphur dioxide
7664-93-9	Sulphuric acid
7783-06-4	Hydrogen sulphide
78-93-3	Methyl ethyl ketone
91-20-3	Naphthalene
92-52-4	Biphenyl
95-63-6	1,2,4-Trimethylbenzene

NA - 11	Nickel (and its compounds)		
NA - 14	Zinc (and its compounds)		
NA - M08	Total Particulate Matter		
NA - M09	PM10 - Particulate Matter		
NA - M14	Total reduced sulphur (expressed as hydrogen sulphide)		
NA - M16	Volatile Organic Compounds (VOCs)		
NA - M10	PM2.5 - Particulate Matter		
Company Name			
Petro-Canada Lubricants Inc.			
Highest Ranking Employee			
Gord Pinard			
Report Submitted by			
Gord 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
	Date				

2015	31/05/2016	Mississauga Lubricants	Ontario	Mississauga	NPRI,ON MOE TRA,NFPRER
		Centre			

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.