

SUNCOR ENERGY PRODUCTS INC.

ST. CLAIR ETHANOL PLANT 535 ROKEBY LINE MOORETOWN, ONTARIO NON 1M0 TEL (519) 481-0454

# **2013 TOXICS REDUCTION ACT**

# Report on Toxic Substance Accounting Requirements

Suncor Energy Products Incorporated

(St. Clair Ethanol Plant)

535 Rokeby Line

Mooretown, Ontario

NON 1M0

June 2014

# **Version Control**

Version	Date Issued	Modifications	
Update	June 2014	Update to original version made available to the public and employees June 2011	

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# **1.0 INTRODUCTION**

Suncor Energy Products Inc. (Suncor) operates an ethanol production plant, designated the St. Clair Ethanol Plant, to supply ethanol for blending with their gasoline products. Ethanol provides a cleaner burning fuel blend and displaces gasoline for transportation.

Protection of the environment is a fundamental Suncor value. It is our responsibility to determine and manage the impacts of our business through programs like the Toxics Reduction 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 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 Toxics Reduction Act and O. Reg. 455/09 visit: http://www.ene.gov.on.ca/environment/en/legislation/toxics\_reduction\_act/index.htm

# 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 St. Clair Ethanol Plant.

# 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 St. Clair Ethanol Plant carries out processes and activities related to "Other Basic Organic Chemical Manufacturing", which is represented by NAICS code "325190", 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. In 2013, the St. Clair Ethanol Plant employed 63 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. In 2013 the 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 2013, the St. Clair Ethanol Plant was required to report to the TRA. Specifically, the St. Clair Ethanol Plant met the reporting requirements for the following substances listed in Schedule A of O. Reg. 455/09:

- Acetaldehyde
- Sulphuric acid
- Methanol
- Naphthalene
- Ethylbenzene
- Toluene
- Xylene
- Ethyl Acetate
- Propane
- N-hexane
- 1,2,4-Trimethylbenzene
- Ammonia
- Cyclohexane
- Ethanol (Ethyl Alcohol)
- PM (Total Particulate Matter)
- PM10
- PM2.5
- Oxides of Nitrogen
- Sulphur Dioxide
- Carbon Monoxide

## 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

	Facility Information	
Company Name	Suncor Energy Products Inc.	
Facility Name	St. Clair Ethanol Plant	
Facility Physical Address	535 Rokeby Line, Mooretown, ON NON 1M0	
Facility Mailing Address	Same as physical address	
Spatial Coordinates of Facility	42.92940, -82.43810	
Number of Employees	62	•
NPRI ID	11444	
2 Digit NAICS Code	32	
4 Digit NAICS Code	3251	
6 Digit NAICS Code	325190	

	Parent Company Information
Parent Company Name	Suncor Energy Products Inc.
Address	2489 North Sheridan Way, Mississauga, ON L5K 1A8
Percent Ownership (if available)	100.00%

State of states and	Facility Contact
Public Contact	Jack Wysman
Position	Manager, Environment, Health & Safety
Address	535 Rokeby Line, Mooretown, ON NON 1M0
email	wysman@stclairethanol.com
Phone	519-481-0454
Fax	519-862-4008

### Date of Summary

Reporting Year Summary Date 2013 June 1, 2014

### Phase 1 Toxics Substances Reported

Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Toluene, Xylene

### Phase 2 Toxics Substances Reported

Ethyl Acetate, N-Hexane, Ammonia, Propane, 1,2,4-Trimethylbenzene, Cyclohexane, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide

### Copy of Certification:

As of June 1, 2014, I certify that I have read the report on the toxic substance reduction plan(s) for the toxics listed above and am familiar with their contents and to my knowledge the information contained in the report(s) is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

The original version of this report is signed off by:

Highest Ranking Employee: Jane	(east	
Title:	ane keast	
	Director Ethand Open	atimo
/		

# 4.0 SUBSTANCE REPORTING

In accordance with s. 26(1) subparagraphs 2 and 7, the St. Clair Ethanol Plant 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, the St. Clair Ethanol Plant 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 1000
- >1000 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.

# 4.1 Acetaldehyde

Substance Name	Acetaldehyde
CAS #	75-07-0
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of acetaldehyde, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of acetaldehyde through current and future pollution prevention and best management practices.

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to 1	1%
P - In a product that leaves the process	>10 to 100	>10 to 100	>0 to -1	0%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Acetaldehyde created at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.2 Sulphuric Acid

Substance Name	Sulphuric Acid
CAS #	7664-93-6
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of sulphuric acid, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of sulphuric acid through current and future pollution prevention and best management practices.

### **Toxics Substance Accounting and Comparison**

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>1000 to 10,000	>1000 to 10,000	> -100 to -1000	-11%
C - Created	0	0	0	NA
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	n The amount of sulphuric acid used decreased due to a lower requirement for use during production.			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.3 Methanol (Methyl Alcohol, Wood Alcohol)

Substance Name	Methanol (Methyl Alcohol, Wood Alcohol)
CAS #	67-56-1
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation or use of methanol, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of methanol through current and future pollution prevention and best management practices.

### **Toxics Substance Accounting and Comparison**

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	3%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Methanol (Methyl Alcohol, Wood Alcohol) created at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.4 Naphthalene

Substance Name	Naphthalene
CAS #	91-20-3
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of naphthalene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of naphthalene through current and future pollution prevention and best management practices.

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>10 to 100	>10 to 100	>1 to 10	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>10 to 100	>10 to 100	>1 to 10	5%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Naphthalene used at the facility		t the facility	

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.5 Ethyl Benzene

Substance Name	Ethyl Benzene
CAS #	100-41-4
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of ethyl benzene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of ethyl benzene through current and future pollution prevention and best management practices.

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>1 to 10	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>1 to 10	5%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ethyl Benzene used at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.6 Toluene

Substance Name	Toluene
CAS #	108-88-3
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of toluene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of toluene through current and future pollution prevention and best management practices.

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>10 to 100	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>10 to 100	5%
Summary of reasons for changes between current year and previous year.	No significant chan	ge in the amount of	Toluene used at the	facility

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none
Summary of differences between steps taken and those set out in the plan.	none
Description of amendments to the plan.	none

# 4.7 Xylenes (Mixed Isomers)

Substance Name	Xylenes (Mixed Isomers)
CAS #	1330-20-7
Report Date:	1-Jun-14
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of xylenes, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of xylenes through current and future pollution prevention and best management practices.

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>10 to 100	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>10 to 100	5%
Summary of reasons for changes between current year and previous year.	No significant chan facility	ge in the amount of	Xylenes (Mixed Ison	ners) used at the

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

Progress in Implementing Plan		
Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	none	
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	none	
Summary of differences between steps taken and those set out in the plan.	none	
Description of amendments to the plan.	none	

# 4.8 Ethyl Acetate

Substance Name	Ethyl Acetate
CAS #	141-78-6
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	5%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant chan	ge in the amount of	Ethyl Acetate create	d at the facility

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.9 Propane

Substance Name	Propane
CAS #	74-98-6
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### **Toxics Substance Accounting and Comparison**

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant chan	ge in the amount of	•	-

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.10 N-Hexane

Substance Name	N-Hexane
CAS #	110-54-3
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### **Toxics Substance Accounting and Comparison**

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant chan	ge in the amount of	N-Hexane created a	t the facility

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.11 1,2,4-Trimethylbenzene

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Substance Name	1,2,4-Trimethylbenzene
CAS #	95-63-6
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>10 to 100	>10 to 100	>1 to 10	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>10 to 100	>10 to 100	>1 to 10	5%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of 1,2,4-Trimethylbenzene created at the facility			

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

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Progress	in Implementing	Plan

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.12 Ammonia

Substance Name	Ammonia
CAS #	7664-41-7
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics	Substance	Accounting	and Comparison	

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	> -100 to -1000	-10%
C - Created	0	0	0	NA
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ammonia created at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.13 Cyclohexane

Substance Name	Cyclohexane
CAS #	110-82-7
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>1 to 10	5%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>1 to 10	5%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Cyclohexane created at the facility		d at the facility	

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

Progress	in Implementing	Plan

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.14 Ethanol (Ethyl Alcohol)

Substance Name	Ethanol (Ethyl Alcohol)
CAS #	64-17-5
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>1 to 10	3%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ethanol (Ethyl Alcohol) created at the facility			ol) created at the

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.15 PM (Total Particulate Matter)

Substance Name	PM
CAS #	N/A - M08
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	-1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM created at the facility			

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

# Progress in Implementing Plan Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken. Not Applicable Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions. Not Applicable Summary of differences between steps taken and those set out in the plan. Not Applicable Description of amendments to the plan. Not Applicable

# 4.16 PM10

Substance Name	PM10
CAS #	N/A - M09
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	-1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM10 created at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

# 4.17 PM2.5

Substance Name	PM2.5
CAS #	N/A - M10
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	-2%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM2.5 created at the facility			e facility

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

### 4.18 NO<sub>x</sub> (Oxides of Nitrogen)

Substance Name	NOx
CAS #	10102-44-0
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### **Toxics Substance Accounting and Comparison**

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>100 to 1000	>100 to 1000	>1 to 10	1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of NOx created at the facility			

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

Progress in Implementing Plan		
Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable	
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable	
Summary of differences between steps taken and those set out in the plan.	Not Applicable	
Description of amendments to the plan.	Not Applicable	

# 4.19 SO<sub>2</sub> (Sulphur Dioxide)

Substance Name	SO2
CAS #	7446-09-5
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

### Toxics Substance Accounting and Comparison

Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	> -1 to -10	-2%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of SO2 created at the facility			

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

Progress in Implementing Plan		
Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable	
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable	
Summary of differences between steps taken and those set out in the plan.	Not Applicable	
Description of amendments to the plan.	Not Applicable	

# 4.20 CO (Carbon Monoxide)

Substance Name	СО
CAS #	124-38-9
Report Date:	1-Jun-14
Plan Date:	Not Applicable
Plan Objectives and Targets	This is the first year of Toxics Accounting Reporting for this substance

Toxics Substance Accounting and Comparison				
Pathways	2012	2013	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>100 to 1000	>100 to 1000	> -1 to -10	-2%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of CO created at the facility			

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

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.	Not Applicable
Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.	Not Applicable
Summary of differences between steps taken and those set out in the plan.	Not Applicable
Description of amendments to the plan.	Not Applicable

ATTACHMENT 1:

# **CONFIRMATION OF SUBMISSION**

From:	Jack Wysman
То:	Bill Bradshaw
Subject:	FW: INRP - Confirmation de soumission - [2013] / NPRI – Confirmation of Submission – [2013]
Date:	Thursday, May 29, 2014 3:25:00 PM

From: Keast, Jane [mailto:jkeast@Suncor.com] Sent: Thursday, May 29, 2014 2:54 PM To: Jack Wysman Subject: Fw: INRP - Confirmation de soumission - [2013] / NPRI – Confirmation of Submission – [2013]

### Sent from my BlackBerry 10 smartphone on the TELUS network.

From: inrp-npri@ec.gc.ca Sent: Thursday, May 29, 2014 2:52 PM To: Keast, Jane Subject: INRP - Confirmation de soumission - [2013] / NPRI – Confirmation of Submission – [2013]

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# Confirmation de soumission

Jane Keast,

Le but de ce courriel est de vous informer que la déclaration suivante a été soumise avec succès dans le Guichet unique d'Environnement Canada:

Période de déclaration: 2013 Programme: INRP,MEO LRT Type de déclaration: Inventaire Nom de la compagnie: Suncor Energy Products Inc. Nom de l'installation: St. Clair Ethanol Plant Adresse de l'installation: 535 Rokeby Line, Mooretown (Ontario) Date et temps de soumission: 29/05/2014 2:51:39 PM

Pour visualiser ou mettre à jour la déclaration, veuillez vous connecter au Guichet unique d'Environnement Canada (<u>https://ec.ss.ec.gc.ca</u>).

# Jane Keast,

The purpose of this email is to notify you that the following report has been successfully submitted into Environment Canada's Single Window reporting system:

**Confirmation of Submission** 

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Reporting Period: 2013 Program: NPRI,ON MOE TRA Report Type: Inventory Company Name: Suncor Energy Products Inc. Facility Name: St. Clair Ethanol Plant Facility location: 535 Rokeby Line, Mooretown (Ontario) Submitted Date and Time: 29/05/2014 2:51:39 PM

To view or update the report, please log in to Environment Canada's Single Window (<u>https://ec.ss.ec.gc.ca</u>).