



SUNCOR ENERGY PRODUCTS INC.

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ST. CLAIR ETHANOL PLANT  
535 ROKEBY LINE  
MOORETOWN, ONTARIO  
N0N 1M0  
TEL (519) 481-0454

## 2012 TOXICS REDUCTION ACT

# Toxic Substance Reduction Plan Summaries

Suncor Energy Products Incorporated  
(St. Clair Ethanol Plant)  
535 Rokeby Line  
Mooretown, Ontario  
N0N 1M0

December 18, 2013



## Version Control

Version	Date Issued	Modifications
Update	December 18, 2013	Original version made available to the public and employees December 31, 2013

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## LIST OF ATTACHMENTS

### **ATTACHMENT 1: CERTIFICATION STATEMENTS**

## 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.

These toxics substance reduction plan summaries have been prepared to meet the regulatory obligations specified in Section 8 of the Act and has been prepared in accordance with the requirements of s. 24 of Ontario Regulation (O. Reg.) 455/09, as amended from time to time. It meets 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](http://www.ene.gov.on.ca/environment/en/legislation/toxics_reduction_act/index.htm).

## 1.1 Toxic Substances

Toxic substance reduction plan summaries have been developed for the following substances and are provided in the appendices:

- Ammonia, CAS No. 7664-41-7.
- 1,2,4-Trimethylbenzene, CAS No. 95-63-6.
- Cyclohexane, CAS No. 110-82-7.
- Ethanol, CAS No. 64-17-5.
- Ethyl Acetate, CAS No. 141-78-6.
- Particulate Matter.
- Particulate Matter Fractions (PM10 & PM2.5).
- Nitrogen Oxides, CAS No. 10102-44-0; Sulphur Dioxide, CAS No. 446-09-5; Carbon Monoxide, CAS No. 630-08-0; N-Hexane, CAS No. 110-54-3; Propane, CAS No. 4-98-6.

## 2.0 GENERAL FACILITY INFORMATION

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

**Table 1: General Facility Information**

Reporting Requirement	Facility Information	Reference to Act and/or O. Reg. 455/09
Parent Company Name	Suncor Energy Products Inc.	O. Reg. 455/09 s.18(2) subparagraph 14
Parent Company Address	P.O. Box 2844 150 – 6 Ave. S.W. Calgary, Alberta, CAN T2P 3E3	O. Reg. 455/09 s.18(2) subparagraph 14
Facility Name	St. Clair Ethanol Plant	O. Reg. 455/09 s.18(2) subparagraph 4
Facility Address	535 Rokeby Line Mooretown Ontario N0N 1M0	O. Reg. 455/09 s.18(2) subparagraph 4
Universal Transverse Mercator (UTM) in North American Datum (NAD83)	17T Zone 383480m E, 4745500m N	O. Reg. 455/09 s.18(2) subparagraph 13
National Pollutant Release Inventory Identification Number	11444	O. Reg. 455/09 s.18(2) subparagraph 2
Ontario Regulation 127/01 Identification Number	N/A	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	3251 – Basic Chemical Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Six Digit North American Industry Classification System (NAICS) Code	325190 – Other Basic Chemical Organic Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Number of Full-time Employee Equivalents at the Facility	62	O. Reg. 455/09 s.18(2) subparagraph 5
Facility Public Contact	Jack Wysman Manager, Environmental, Health & Safety 535 Rokeby Line, Mooretown, ON N0N 1M0 Canada Email: <a href="mailto:jwysman@stclairethanol.com">jwysman@stclairethanol.com</a> Phone: (519) 481-0454 Fax: (519) 862-4008	O. Reg. 455/09 s.18(2) subparagraph 7

### 3.0 SUBSTANCE REPORTING

The following sections provide a summary of each of the eight (8) Toxic Substance Reduction Plans that have been developed for the St. Clair Ethanol Plant.

#### 3.1 Ammonia

Substance Name and CAS #	Ammonia; 7664-41-7
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, EthylBenzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Cyclohexane, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>• Used to adjust pH within fermenters (less stress on yeast = less acetaldehyde)</li> <li>• Provides nitrogen during fermentation</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>• Containment and runoff monitoring program; closed loop system; protected connections/flanges.</li> <li>• Volumes stored onsite are for immediate production requirements; all vessels labelled accordingly to prevent accidental losses or exceed expiry.</li> <li>• Drivers &amp; Operation Personnel are trained to properly load and unload chemicals as well as to respond to emergency spill situations.</li> </ul>
Date December 18, 2013	Date December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclair ethanol.com">JWysman@stclair ethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

### Statement of Intent

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of Ammonia because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Ammonia emissions to the environment.

### Plan Objectives

While the facility does not intend to reduce the use of the substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

### Description of Substance

Ammonia is used within ethanol production process to provide nitrogen and pH control for yeast. There is no Ammonia created within the process.

### Toxic Substance Reduction Option(s) To Be Implemented

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of Ammonia because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Ammonia emissions to the environment.

### Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for Ammonia, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.2 1,2,4-Trimethylbenzene

Substance Name and CAS #	1,2,4-Trimethylbenzene; 95-63-6
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>1,2,4-Trimethylbenzene is a component of the gasoline that is added to ethanol as required by Excise Act.</li> <li>Denatured ethanol produced by SCEP is sold to the gasoline industry.</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Containment and runoff monitoring program; closed loop system.</li> <li>Volumes stored onsite are for immediate production requirements; all vessels labelled accordingly to prevent accidental losses or exceed expiry.</li> <li>Drivers &amp; operations personnel are trained to properly load &amp; unload chemicals as well as to respond to emergency spill situations.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%



### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclair ethanol.com">JWysman@stclair ethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

### Statement of Intent

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of 1,2,4-Trimethylbenzene because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing 1,2,4-Trimethylbenzene emissions to the environment.

### Plan Objectives

While the facility does not intend to reduce the use of this substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

### Description of Substance

1,2,4-Trimethylbenzene is a component of the denaturant used at the facility in order to meet the mandated requirements of the gasoline industry. There is no 1,2,4-Trimethylbenzene created within the process.

### Toxic Substance Reduction Option(s) To Be Implemented

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of 1,2,4-Trimethylbenzene because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing 1,2,4-Trimethylbenzene emissions to the environment.

### Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for 1,2,4-Trimethylbenzene, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.3 Cyclohexane

Substance Name and CAS #	Cyclohexane; 110-82-7
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>Cyclohexane is a component of the gasoline that is added to ethanol as required by Excise Act.</li> <li>Denatured ethanol produced by SCEP is sold to the gasoline industry.</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Containment and runoff monitoring program; closed loop system.</li> <li>Volumes stored onsite are for immediate production requirements; all vessels labelled accordingly to prevent accidental losses or exceed expiry.</li> <li>Drivers &amp; operations personnel are trained to properly load &amp; unload chemicals as well as to respond to emergency spill situations.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclair ethanol.com">JWysman@stclair ethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

### Statement of Intent

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of Cyclohexane because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Cyclohexane emissions to the environment.

### Plan Objectives

While the facility does not intend to reduce the use of this substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

### Description of Substance

Cyclohexane is a component of the denaturant used at the facility in order to meet the mandated requirements of the gasoline industry. There is no Cyclohexane created within the process.

### Toxic Substance Reduction Option(s) To Be Implemented

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use of Cyclohexane because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Cyclohexane emissions to the environment.

### Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for Cyclohexane, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.4 Ethanol

Substance Name and CAS #	Ethanol; 64-17-5
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>Ethanol is a component of the gasoline that is added to ethanol as required by Excise Act.</li> <li>Ethanol is the core final product manufactured by the facility.</li> <li>Denatured ethanol produced by SCEP is sold to the gasoline industry.</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Currently using state of the art industry technology, procedures and practices to reduce losses.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclaireethanol.com">JWysman@stclaireethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

### Statement of Intent

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use or creation of Ethanol because it is the core product stream at the facility and a component of the gasoline product required by the gasoline industry. Suncor Energy Products is committed to continuous improvement in reducing Ethanol emissions to the environment.

### Plan Objectives

While the facility does not intend to reduce the creation or use of this substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

### Description of Substance

Ethanol is a component of the denaturant used at the facility as mandated by the gasoline industry. Ethanol is created within the process as the core product manufactured at the facility.

### Toxic Substance Reduction Option(s) To Be Implemented

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use or creation of Ethanol because it is the core product stream at the facility and a component of the denaturant required by the gasoline industry. Suncor Energy Products is committed to continuous improvement in reducing Ethanol emissions to the environment.

### Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for Ethanol, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.5 Ethyl Acetate

Substance Name and CAS #	Ethyl Acetate; 141-78-6
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>None</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Currently using state of the art industry technology, procedures and practices to reduce losses.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

#### Facility Contact Information

Public Contact	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclairethanol.com">JWysman@stclairethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

## **Statement of Intent**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the use or creation of ethyl acetate because it is a by-product of key reactions within the ethanol manufacturing processes at the site. Suncor Energy Products is committed to continuous improvement in reducing ethyl acetate emissions to the environment.

## **Plan Objectives**

While the facility does not intend to reduce the creation of this substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

## **Description of Substance**

Ethyl Acetate is not a component of any raw material. Ethyl Acetate is created as a byproduct of the Ethanol production process.

## **Toxic Substance Reduction Option(s) To Be Implemented**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the creation of Ethyl Acetate because it is a by-product of key reactions within the ethanol manufacturing processes at the site. Suncor Energy Products is committed to continuous improvement in reducing Ethyl Acetate emissions to the environment.

## **Plan Summary Statement**

This plan summary accurately reflects the content of the toxic substance reduction plan for Ethyl Acetate, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.6 Particulate Matter

Substance Name and CAS #	Particulate Matter; N/A
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>None</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Currently using state of the art industry technology, procedures and practices to reduce losses.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
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#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

#### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclairethanol.com">JWysman@stclairethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008



## **Statement of Intent**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the creation of PM because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing PM emissions to the environment.

## **Plan Objectives**

While the facility does not intend to reduce the creation of this substance, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

## **Description of Substance**

PM is not a component of any raw material. PM is created as a byproduct of the Ethanol production process.

## **Toxic Substance Reduction Option(s) To Be Implemented**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the creation of PM because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing PM emissions to the environment.

## **Plan Summary Statement**

This plan summary accurately reflects the content of the toxic substance reduction plan for PM, prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.7 Particulate Matter Fractions (PM10 & PM2.5)

Substance Name and CAS #	Particulate Matter Fractions (PM10 & PM2.5); N/A
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>None</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Currently using state of the art industry technology, procedures and practices to reduce losses.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
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2 Digit NAICS Code	32
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#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

#### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclairethanol.com">JWysman@stclairethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

## **Statement of Intent**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the creation of Particulate Matter Fractions (PM10 & PM2.5) because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Particulate Matter Fractions (PM10 & PM2.5) emissions to the environment.

## **Plan Objectives**

While the facility does not intend to reduce the creation of these substances, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations; and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

## **Description of Substance**

Particulate Matter Fractions (PM10 & PM2.5) are not a component of any raw material. Particulate Matter Fractions (PM10 & PM2.5) are created as a byproduct of the Ethanol production process.

## **Toxic Substance Reduction Option(s) To Be Implemented**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce the creation of Particulate Matter Fractions (PM10 & PM2.5) because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing Particulate Matter Fractions (PM10 & PM2.5) emissions to the environment.

## **Plan Summary Statement**

This plan summary accurately reflects the content of the toxic substance reduction plan for Particulate Matter Fractions (PM10 & PM2.5), prepared by Suncor Energy Products Inc., dated December 18, 2013.

### 3.8 Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane, Propane

Substance Name (CAS #)	Nitrogen Oxides (10102-44-0), Sulphur Dioxide (446-09-5), Carbon Monoxide (630-08-0), N-Hexane (110-54-3), Propane (4-98-6)
Substances for which other plans have been prepared	Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Ethyl Acetate, Toluene, Xylene, Ammonia, 1,2,4-Trimethylbenzene, Ethanol, PM, PM10, PM2.5, Ethanol, Cyclohexane
Beneficial Uses at Facility	<ul style="list-style-type: none"> <li>None</li> </ul>
Previously Implemented Reduction Activities	<p>The St. Clair Ethanol Plant has previously implemented the following reduction activities:</p> <ul style="list-style-type: none"> <li>Currently using state of the art industry technology, procedures and practices to reduce losses.</li> </ul>
Date	December 18, 2013

#### Facility Information

Company Name	Suncor Energy Products Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, Ontario, Canada N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	383480.00, 4745500.00 Zone 17 (NAD83)
Number of Employees	62
NPRI ID	11444
Ontario MOE ID Number	N/A
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Parent Company Information

Parent Company Name	Suncor Energy Inc.
Address	150 6 <sup>th</sup> Avenue Southwest, Calgary, AB, Canada T2P 3E3
Percent Ownership	100%

#### Facility Contact Information

<b>Public Contact</b>	<b>Jack Wysman - Manager, Environment, Health &amp; Safety</b>
Address	535 Rokeby Line, Mooretown, ON, Canada N0N 1M0
email	<a href="mailto:JWysman@stclairethanol.com">JWysman@stclairethanol.com</a>
Phone	(519) 481-0454
Fax	(519) 862-4008

## **Statement of Intent**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce substance creation because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing substance emissions to the environment.

## **Plan Objectives**

While the facility does not intend to reduce the creation of these substances, the plan was developed with the following objectives:

- We will continue to operate in full compliance with all applicable environmental regulations;  
and
- We will continue to reduce substance emissions through current and future pollution prevention and best management practices.

## **Description of Substance**

Substance is created as a by-product of the Ethanol production process.

## **Toxic Substance Reduction Option(s) To Be Implemented**

Suncor Energy Products Inc. is committed to playing a leadership role in protecting the environment. Suncor Energy Products does not intend to reduce substance creation because no feasible reduction options could be ascertained. Suncor Energy Products is committed to continuous improvement in reducing substance emissions to the environment.

## **Plan Summary Statement**

This plan summary accurately reflects the content of the toxic substance reduction plan for Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, N-Hexane and Propane, prepared by Suncor Energy Products Inc., dated December 18, 2013.

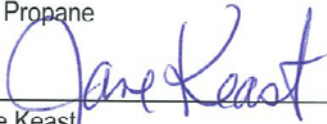
## **Attachment 1: Certification Statements**

### **Certification By Highest Ranking Employee**

As of December 18, 2013, I, Jane Keast, certify that I have read the toxic substance reduction plan for the toxic substances referred to below and am familiar with its contents, and to my knowledge this version of the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

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



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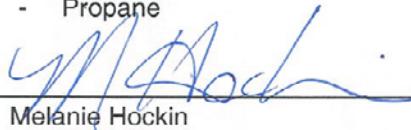
Jane Keast  
Director of Ethanol Operations  
St. Clair Ethanol Plant

### **Certification By Licensed Planner**

As of December 18, 2013, I, Melanie Hockin certify that I am familiar with the processes at the St. Clair Ethanol Plant that use or create the toxic substances referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act, 2009 that are set out in the plan dated December 18, 2013 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

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



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Melanie Hockin  
Certified Toxics Reduction Planner  
LEHDER Environmental Services Limited  
Licence # TSRP0140