



**Summary Letter as required under Toxics Reduction Act and Ontario Regulation 455/09 Amended on April 16, 2018 (original was dated May 28, 2015)**

**Integrated Grain Processors Co-operative Incorporated - IGPC Ethanol**

NPRI ID: 11696  
89 Progress Drive  
Aylmer, ON  
N5H 2R9  
Canada  
Number of employees: 56

**Contact Information**

Jim Grey  
Position: Chief Executive Officer  
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**Geographical Coordinates**

Latitude: 42.7827  
Longitude: -80.9813  
Datum: 1983

**Standard Industrial Classifications**

- NAICS 2 Code: 31-33 - Manufacturing
- NAICS 4 Code: 3251 - Basic Chemical Mfg.
- NAICS 6 Code: 325190 - Other Basic Organic Chemical Mfg.

**Other Environmental Programs**

- G10478 – GHGRP



## 2014 Substance Information (tonnes)

Substance Name	CAS Number	Amount Entering Process	Amount Created	Amount Released to Air	Amount Disposed	Amount Recycled	Amount Contained in Product
Methanol	67-56-1	1 to 10	1 to 10	4.6	0	0	1 to 10
Sulphuric Acid	7664-93-9	1,000 to 10,000	0	0	0	0	0
Toluene	108-88-3	100 to 1,000	0	0.6	0	0	100 to 1,000
Benzene	71-43-2	10 to 100	0	0.090	0	0	10 to 100
Ethyl Alcohol	64-17-5	0	100,000 to 1,000,000	42.5	0	0	100,000 to 1,000,000
Ammonia	NA - 16	10 to 100	0	0	0.34	0	0
Nitrogen Oxides	11104-93-1	0	10 to 100	82.2	0	0	0
Carbon Monoxide	630-08-0	0	10 to 100	80.1	0	0	0
Particulate Matter (PM <sub>2.5</sub> )	NA - M10	0	1 to 10	6.8	0	0	0
Particulate Matter (PM <sub>10</sub> )	NA - M09	0	1 to 10	8.3	0	0	0

For comparison purposes, the following table provides a summary of the 2013 and 2014 TRA Accounting values.

## Comparison of 2013 to 2014 Reportable TRA Substances (tonnes)

Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
<b>Methanol 67-56-1</b>	2013	1 to 10	1 to 10	4.8	0	1 to 10
	2014	1 to 10	1 to 10	4.6	0	1 to 10
	Change in % and Tonnes	Decrease of 11% or 0.4 tonnes	Decrease of 4% or 0.2 tonnes	Decrease of 4% or 0.2 tonnes	N/A	Decrease of 11% or 0.4 tonnes
	Rationale	Decreased production and chemical usage	No significant change	No significant change	N/A	Decreased production and chemical usage
	Installation of the Ethanol Vapour Recovery System was proposed to result in a decrease of 98% or 4.3 tonnes of methanol emissions to air by end of calendar year 2014. In 2013, an increase of 0.048 tonnes or 1.3% of emission to air was recorded. In 2014, a decrease of 0.23 tonnes or 4.73% of emission to air was recorded. The reduction plan implementation is still in progress.					
<b>Sulphuric Acid 7664-93-9</b>	2013	1,000 to 10,000	0	0	0	0
	2014	1,000 to 10,000	0	0	0	0
	Change in % and Tonnes	Increase of 28% or 355 tonnes	N/A	N/A	N/A	N/A
	Rationale	Removal of anhydrous ammonia cause increase in sulphuric acid usage for heat exchange and pH control	N/A	N/A	N/A	N/A
	No plans to reduce Sulphuric Acid use.					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
<b>Toluene 108-88-3</b>	2013	100 to 1,000	0	0.574	0	100 to 1,000
	2014	100 to 1,000	0	0.582	0	100 to 1,000
	Change in % and Tonnes	Decrease of 57% or 461 tonnes	N/A	Increase of 1.4% or 0.008 tonnes	N/A	Decrease of 57% or 461 tonnes
	Rationale	Refined quantity contained in the raw material	N/A	No significant change	N/A	Refined quantity contained in the raw material
	No plans to reduce Toluene use.					
<b>Benzene 71-43-2</b>	2013	10 to 100	0	0.090	0	10 to 100
	2014	10 to 100	0	0.090	0	10 to 100
	Change in % and Tonnes	Decrease of 15% or 4.5 tonnes	N/A	No change	N/A	Decrease of 15% or 4.5 tonnes
	Rationale	Update in material density, resulted in decrease in material	N/A	No significant change	N/A	changeUpdate in material density, resulted in decrease in
	No plans to reduce Benzene use.					
<b>Ethyl Alcohol 64-17-5</b>	2013	0	100,000 to 1,000,000	47.7	0	100,000 to 1,000,000
	2014	0	100,000 to 1,000,000	42.5	0	100,000 to 1,000,000
	Change in % and Tonnes	N/A	Decrease of <1% or 998 tonnes	Decrease of 9% or 4.2 tonnes	N/A	Decrease of <1% or 994 tonnes
	Rationale	N/A	No significant change	No significant change	N/A	No significant change
	No plans to reduce Ethyl Alcohol use.					
<b>Ammonia NA - 16</b>	2013	100 to 1,000	0	0	0.23	0
	2014	10 to 100	0	0	0.34	0
	Change in % and Tonnes	Decrease of 40% or 62 tonnes	N/A	N/A	Increase of 48% or 0.11 tonnes	N/A
	Rationale	Eliminated use of ammonia in May 2014	N/A	N/A	Discharged water testing based on average from past 3 years	N/A
	Installation of hose weights and improvement of loading process were to result in decrease of 1% or 0.003 tonnes in 2013. In 2013, IGPC attempted to implement toxic reduction plans and concurrently performed trial using enzymes, which eliminated use of ammonia during the trial period. The enzyme trial resulted in a 20% decrease in use of ammonia and 30% decrease in off-site transfers in 2013. In 2014, IGPC eliminated the use of ammonia. With the implementation of the aforementioned actions, IGPC surpasses the reduction plan targets.					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
<b>Nitrogen Oxides 11104-93-1</b>	2013	0	10 to 100	86.5	0	0
	2014	0	10 to 100	82.2	0	0
	Change in % and Tonnes	N/A	Decrease of 5% or 4.3 tonnes	Decrease of 5% or 4.3 tonnes	N/A	N/A
	Rationale	N/A	No significant change	No significant change	N/A	N/A
	<p>Throughout the past years, IGPC Ethanol Inc. intended on implementing the following reduction plans (year of implementation in parentheses):</p> <ol style="list-style-type: none"> <li>1) Replace main gas valve and 2 main valves to main dryer (2014);</li> <li>2) Improve building condition (2014);</li> <li>3) Daily site plant walkthroughs (2013);</li> <li>4) Train employee to be a Certified Energy Manager (2013).</li> </ol> <p>Each of these actions were to result in a decrease of 1% or 0.5 tonnes of nitrogen oxide, with the exception of the last action (employee training), which would result in a decrease of 1% to 10% or 0.5 to 5.2 tonnes decrease in nitrogen oxide created and discharged. In 2013, a decrease of 0.4% or 0.205 tonnes was recorded. In 2014, a decrease of 5.6% or 2.9 tonnes was recorded. IGPC surpasses the reduction plan targets.</p>					
<b>Carbon Monoxide 630-08-0</b>	2013	0	10 to 100	89	0	0
	2014	0	10 to 100	80.1	0	0
	Change in % and Tonnes	N/A	Decrease of 10% or 9 tonnes	Decrease of 10% or 9 tonnes	N/A	N/A
	Rationale	N/A	Reduced Biomethanator Flare Operating Hours	Reduced Biomethanator Flare Operating Hours	N/A	N/A
	<p>Throughout the past years, IGPC Ethanol Inc. intended on implementing the following reduction plans (year of implementation in parentheses):</p> <ol style="list-style-type: none"> <li>1) Replace main gas valve and 2 main valves to main dryer (2014);</li> <li>2) Improve building condition (2014);</li> <li>3) Daily site plant walkthroughs (2013);</li> <li>4) Train employee to be a Certified Energy Manager (2013).</li> </ol> <p>Each of these actions were to result in a decrease of 1% or 0.9 tonnes of nitrogen oxide, with the exception of the last action (employee training), which would result in a decrease of 1% to 10% or 0.9 to 9 tonnes decrease in nitrogen oxide created and discharged. In 2013, a decrease of 0.6% or 0.518 tonnes was recorded. In 2014, a decrease of 10% or 9 tonnes was recorded. IGPC surpasses the reduction plan targets.</p>					



## **Certification**

As of April 16, 2018, I, Jim Grey certify that I have read the report on the toxic substance reduction plan for the toxic substances referred to above and am familiar with its contents, and to my knowledge the information contained in the report is factually accurate and the report complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Signed, in Aylmer, ON, on April 16, 2018



**Jim Grey, CEO**  
IGPC Ethanol Inc.