



**Summary Letter as required under Toxics Reduction Act and Ontario
Regulation 455/09 Amended on April 16, 2018
(original was dated May 16, 2016)**

Integrated Grain Processors Co-operative Incorporated - IGPC Ethanol

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Canada
Number of employees: 57

Contact Information

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Geographical Coordinates

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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



2015 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	5.2	0	0	1 to 10
Sulphuric Acid	7664-93-9	1,000 to 10,000	0	0	0.4	0	0
Toluene	108-88-3	100 to 1,000	0	0.7	0	0	100 to 1,000
Benzene	71-43-2	10 to 100	0	0.11	0	0	10 to 100
Ethyl Alcohol	64-17-5	0	100,000 to 1,000,000	49.1	0	0	100,000 to 1,000,000
Ammonia	NA - 16	0	0	0	0	0	0
Nitrogen Oxides	11104-93-1	0	10 to 100	89.8	0	0	0
Carbon Monoxide	630-08-0	0	10 to 100	92.5	0	0	0
Particulate Matter (PM _{2.5})	NA - M10	0	1 to 10	7.5	0	0	0
Particulate Matter (PM ₁₀)	NA - M09	0	1 to 10	9.1	0	0	0

For comparison purposes, the following table provides a summary of the 2014 and 2015 TRA Accounting values.

Comparison of 2014 to 2015 Reportable TRA Substances (tonnes)

Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Methanol 67-56-1	2014	1 to 10	1 to 10	4.6	0	1 to 10
	2015	1 to 10	1 to 10	5.2	0	1 to 10
	Change in % and Tonnes	Increase of 14% or 0.5 tonnes	Increase of 14% or 0.6 tonnes	Increase of 14% or 0.6 tonnes	N/A	Decrease of 14% or 0.5 tonnes
	Rationale	Increased production and chemical usage	Increased production and chemical usage	Increased production and chemical usage	N/A	Increased 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. Due to increased 2015 production, the methanol air releases increased by 0.6 tonnes. The implementation of the system didn't result in the anticipated reductions.					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Sulphuric Acid 7664-93-9	2014	1,000 to 10,000	0	0	0	0
	2015	1,000 to 10,000	0	0	0.4	0
	Change in % and Tonnes	Increase of 13% or 215 tonnes	N/A	N/A	Increase of 100% or 0.4 tonnes	N/A
	Rationale	Increased production and chemical usage	N/A	N/A	Increased due to maintenance activities	N/A
	No plans to reduce Sulphuric Acid use.					
Toluene 108-88-3	2014	100 to 1,000	0	0.582	0	100 to 1,000
	2015	100 to 1,000	0	0.725	0	100 to 1,000
	Change in % and Tonnes	Increase of 6% or 22 tonnes	N/A	Increase of 25% or 0.14 tonnes	N/A	Increase of 6% or 22 tonnes
	Rationale	No significant change	N/A	No significant change	N/A	No significant change
	No plans to reduce Toluene use.					
Benzene 71-43-2	2014	10 to 100	0	0.090	0	10 to 100
	2015	10 to 100	0	0.111	0	10 to 100
	Change in % and Tonnes	Increase of 6% or 1.7 tonnes	N/A	Increase of 22% or 0.02 tonnes	N/A	Increase of 6% or 1.6 tonnes
	Rationale	No significant change	N/A	Increased production and chemical usage	N/A	No significant change
	No plans to reduce Benzene use.					
Ethyl Alcohol 64-17-5	2014	0	100,000 to 1,000,000	42.5	0	100,000 to 1,000,000
	2015	0	100,000 to 1,000,000	49.1	0	100,000 to 1,000,000
	Change in % and Tonnes	N/A	Increase of 5% or 6692 tonnes	Increase of 16% or 6.7 tonnes	N/A	Increase of 5% or 6685 tonnes
	Rationale	N/A	No significant change	Increase in production	N/A	No significant change
	No plans to reduce Ethyl Alcohol use.					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Ammonia NA - 16	2014	10 to 100	0	0	0.34	0
	2015	0	0	0	0	0
	Change in % and Tonnes	Decrease of 100% or 96 tonnes	N/A	N/A	Decrease of 100% or 0.34 tonnes	N/A
	Rationale	Eliminated use of ammonia	N/A	N/A	Eliminated use of ammonia	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.					
Nitrogen Oxides 11104-93-1	2014	0	10 to 100	82.2	0	0
	2015	0	10 to 100	89.8	0	0
	Change in % and Tonnes	N/A	Increase of 9.3% or 8 tonnes	Increase of 9.3% or 8 tonnes	N/A	N/A
	Rationale	N/A	Increase in production and natural gas usage	Increase in production and natural gas usage	N/A	N/A
	No plans to reduce the creation of Nitrogen Oxides.					
Carbon Monoxide 630-08-0	2014	0	10 to 100	80.1	0	0
	2015	0	10 to 100	92.5	0	0
	Change in % and Tonnes	N/A	Increase of 15% or 12 tonnes	Increase of 15% or 12 tonnes	N/A	N/A
	Rationale	N/A	Increase in production and natural gas usage	Increase in production and natural gas usage	N/A	N/A
	No plans to reduce the creation of carbon monoxide.					
Particulate Matter (PM_{2.5}) NA-M10	2014	0	8.3	8.3	0	0
	2015	0	9.1	9.1	0	0
	Change in % and Tonnes	N/A	Increase of 9% or 0.8 tonnes	Increase of 9% or 0.8 tonnes	N/A	N/A
	Rationale	N/A	No significant change	No significant change	N/A	N/A
	No plans to reduce the creation of PM _{2.5} .					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Particulate Matter (PM₁₀) NA-M09	2014	0	6.8	6.8	0	0
	2015	0	7.5	7.5	0	0
	Change in % and Tonnes	N/A	Increase of 11% or 0.8 tonnes	Increase of 11% or 0.8 tonnes	N/A	N/A
	Rationale	N/A	Increase in production and natural gas usage	Increase in production and natural gas usage	N/A	N/A
	No plans to reduce the creation of PM ₁₀ .					



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.