



Summary Letter as required under Toxics Reduction Act and Ontario Regulation 455/09

Integrated Grain Processors Co-operative Incorporated - IGPC Ethanol

NPRI ID: 11696
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Number of employees: 61

Contact Information

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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

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	5.4	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	1.135	0	0	100 to 1,000
Benzene	71-43-2	10 to 100	0	0.18	0	0	10 to 100
Ethyl Alcohol	64-17-5	0	100,000 to 1,000,000	54.6	0	0	100,000 to 1,000,000
Ammonia	NA - 16	0	0	0	0	0	0
Nitrogen Oxides	11104-93-1	0	100 to 1000	106.5	0	0	0
Carbon Monoxide	630-08-0	0	10 to 100	89.5	0	0	0
Particulate Matter (PM _{2.5})	NA - M10	0	10 to 100	11.9	0	0	0
Particulate Matter (PM ₁₀)	NA - M09	0	10 to 100	10.6	0	0	0



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

Comparison of 2015 to 2016 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	2015	1 to 10	1 to 10	5.2	0	1 to 10
	2016	1 to 10	1 to 10	5.4	0	1 to 10
	Change in % and Tonnes	Decrease of 34% or 1.28 tonnes	Increase of 3.11% or 0.16 tonnes	Increase of 3.11% or 0.16 tonnes	N/A	Decrease of 34% or 1.28 tonnes
	Rationale	New Corrosion Inhibitor and decreased chemical usage	Production Increase	Production increase	N/A	New Corrosion Inhibitor and decreased 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.					
Sulphuric Acid 7664-93-9	2015	1,000 to 10,000	0	0	0.37	0
	2016	1,000 to 10,000	0	0	0	0
	Change in % and Tonnes	Increase of 1.74% or 32 tonnes	N/A	N/A	Decrease of 100% or 0.37 tonnes	N/A
	Rationale	No significant change	N/A	N/A	Decreased chemical usage	N/A
	No plans to reduce Sulphuric Acid use.					
Toluene 108-88-3	2015	100 to 1,000	0	0.725	0	100 to 1,000
	2016	100 to 1,000	0	1.135	0	100 to 1,000
	Change in % and Tonnes	Increase of 10.01% or 36.5 tonnes	N/A	Increase of 57% or 0.41 tonnes	N/A	Increase of 9.9% or 36 tonnes
	Rationale	Increase in chemical usage	N/A	Increased production	N/A	No significant change
	No plans to reduce Toluene use.					
Benzene 71-43-2	2015	10 to 100	0	0.111	0	10 to 100
	2016	10 to 100	0	0.18	0	10 to 100
	Change in % and Tonnes	Increase of 10% or 2.7 tonnes	N/A	Increase of 60% or 0.07 tonnes	N/A	Increase of 10% or 2.7 tonnes
	Rationale	Increased chemical usage	N/A	Used updated emission factors	N/A	Increased Production
	No plans to reduce Benzene use.					
Ethyl Alcohol 64-17-5	2015	0	100,000 to 1,000,000	49.1	0	100,000 to 1,000,000
	2016	0	100,000 to 1,000,000	54.6	0	100,000 to 1,000,000
	Change in % and Tonnes	N/A	Increase of 9% or 12,022 tonnes	Increase of 11% or 5.5 tonnes	N/A	Increase of 9% or 12,022 tonnes
	Rationale	N/A	Increase in production	Increase in production	N/A	No significant change
	No plans to reduce Ethyl Alcohol use.					



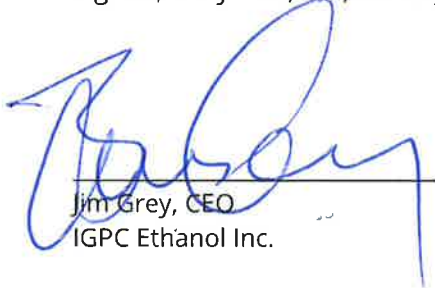
Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Ammonia NA - 16	2015	0	0	0	0	0
	2016	0	0	0	0	0
	Change in % and Tonnes	N/A	N/A	N/A	N/A	N/A
	Rationale	Eliminated use of ammonia	N/A	N/A	Eliminated use of ammonia	N/A
	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. In 2015 and 2016, ammonia continues to be absent at the facility.					
Nitrogen Oxides 11104-93-1	2015	0	10 to 100	56.6	0	0
	2016	0	10 to 100	106.5	0	0
	Change in % and Tonnes	N/A	Increase of 88% or 50 tonnes	Increase of 88% or 50 tonnes	N/A	N/A
	Rationale	N/A	Increase in production and natural gas usage. Updates to source testing.	Increase in production and natural gas usage. Updates to source testing.	N/A	N/A
	No plans to reduce the creation of Nitrogen Oxides.					
Carbon Monoxide 630-08-0	2015	0	10 to 100	92.5	0	0
	2016	0	10 to 100	89.5	0	0
	Change in % and Tonnes	N/A	Decrease of 3% or 3 tonnes	Decrease of 3% or 3 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 carbon monoxide.					
Particulate Matter (PM_{2.5}) NA-M10	2015	0	7.5	7.5	0	0
	2016	0	10.6	10.6	0	0
	Change in % and Tonnes	N/A	Increase of 41% or 3.1 tonnes	Increase of 41% or 3.1 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 _{2.5} .					
Particulate Matter (PM₁₀) NA-M09	2015	0	9.1	9.1	0	0
	2016	0	11.9	11.9	0	0
	Change in % and Tonnes	N/A	Increase of 32% or 2.9 tonnes	Increase of 32% or 2.9 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 May 30, 2017, 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 May 30, 2017



Jim Grey, CEO
IGPC Ethanol Inc.