



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

Integrated Grain Processors Co-operative Incorporated - IGPC Ethanol

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 Aylmer, ON N5H 2R9 Canada
Number of employees: 66

Contact Information

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Geographical Coordinates

Latitude: 42.7827
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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	5.37	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	0.06	0	0	100 to 1,000
Benzene	71-43-2	10 to 100	0	0.01	0	0	10 to 100
Ethyl Alcohol	64-17-5	0	100,000 to 1,000,000	47.20	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	102.24	0	0	0
Carbon Monoxide	630-08-0	0	10 to 100	85.88	0	0	0
Particulate Matter (PM _{2.5})	NA - M10	0	10 to 100	12.16	0	0	0
Particulate Matter (PM ₁₀)	NA - M09	0	10 to 100	13.43	0	0	0



For comparison purposes, the following table provides a summary of the 2016 and 2017 TRA Accounting values.

Comparison of 2016 to 2017 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	2016	1 to 10	1 to 10	5.40	0	1 to 10
	2017	1 to 10	1 to 10	5.37	0	1 to 10
	Change in % and Tonnes	Decrease of 32% or 0.80 tonnes	Decrease of 0.54% or 0.03 tonnes	Decrease of 0.5% or 0.03 tonnes	N/A	Decrease of 32% or 0.80 tonnes
	Rationale	New Corrosion Inhibitor and decreased chemical usage	Production Decrease	Production Decrease	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. Also due to increased production, methanol air releases increased by 3.11% in 2016. In 2017, a decrease of 0.03 tonnes or 0.54% of emissions to air was recorded. The implementation of the system did not result in the anticipated reductions.					
Sulphuric Acid 7664-93-9	2016	1,000 to 10,000	0	0	0	0
	2017	1,000 to 10,000	0	0	0	0
	Change in % and Tonnes	Decrease of 5.4% or 101 tonnes	N/A	N/A	N/A	N/A
	Rationale	Decreased chemical usage	N/A	N/A	N/A	N/A
No plans to reduce Sulphuric Acid use.						
Toluene 108-88-3	2016	100 to 1,000	0	1.13	0	100 to 1,000
	2017	100 to 1,000	0	0.06	0	100 to 1,000
	Change in % and Tonnes	Decrease of 5.9% or 23.84 tonnes	N/A	Decrease of 95% or 1.08 tonnes	N/A	Decrease of 5.7% or 22.77 tonnes
	Rationale	Decrease in chemical usage	N/A	Updated SDS for the truck loadout flare, updated TANKS model runs for storage tanks DET1 and DET2, updated truck loadout flare last containing information, and a decrease in annual hours of operation.	N/A	Decreased Production
	It is the objective of IGPC Ethanol Inc. to minimize the use of toluene containing denaturants within product specification limits.					
Benzene 71-43-2	2016	10 to 100	0	0.18	0	10 to 100
	2017	10 to 100	0	0.01	0	10 to 100
	Change in % and Tonnes	Decrease of 6.0% or 1.79 tonnes	N/A	Decrease of 93% or 0.16 tonnes	N/A	Decrease of 5.4% or 1.62 tonnes
	Rationale	Decreased chemical usage	N/A	Updated SDS for the truck loadout flare, updated TANKS model runs for storage tanks, updated truck loadout flare last containing information, and a decrease in annual hours of operation.	N/A	Decreased Production
	It is the objective of IGPC Ethanol Inc. to minimize the use of benzene containing denaturants within product specification limits and.					



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Ethyl Alcohol 64-17-5	2016	0	100,000 to 1,000,000	54.63	0	100,000 to 1,000,000
	2017	0	100,000 to 1,000,000	47.2	0	100,000 to 1,000,000
	Change in % and Tonnes	N/A	Decrease of 3.5% or 5,268.8 tonnes	Decrease of 14% or 7.43 tonnes	N/A	Decrease of 3.5% or 5,261.4 tonnes
	Rationale	N/A	Decrease in production	Updated SDS for the truck loadout flare, updated TANKS model runs for storage tanks, updated truck loadout flare last containing information, and a decrease in annual hours of operation.	N/A	No significant change
	No plans to reduce Ethyl Alcohol use.					
Ammonia NA - 16	2016	0	0	0	0	0
	2017	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, 2016 and 2017, ammonia continues to be absent at the facility.					
Nitrogen Oxides 11104-93-1	2016	0	100 to 1,000	106.47	0	0
	2017	0	100 to 1,000	102.24	0	0
	Change in % and Tonnes	N/A	Decrease of 4.0% or 4.23 tonnes	Decrease of 4.0% or 4.23 tonnes	N/A	N/A
	Rationale	N/A	Decrease in production and natural gas usage.	Decrease in production and natural gas usage.	N/A	N/A
	No plans to reduce the creation of Nitrogen Oxides.					
Carbon Monoxide 630-08-0	2016	0	10 to 100	89.50	0	0
	2017	0	10 to 100	85.88	0	0
	Change in % and Tonnes	N/A	Decrease of 4.0% or 3.62 tonnes	Decrease of 4.0% or 3.62 tonnes	N/A	N/A
	Rationale	N/A	Decrease in production and natural gas usage.	Decrease in production and natural gas usage.	N/A	N/A
	No plans to reduce the creation of carbon monoxide.					

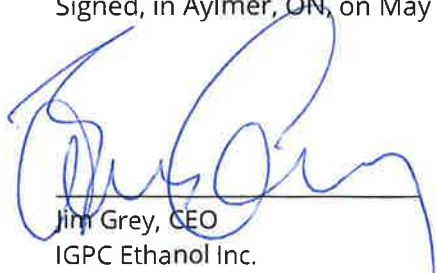


Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Contained in Product
Particulate Matter (PM_{2.5}) NA-M10	2016	0	10.65	10.65	0	0
	2017	0	12.16	12.16	0	0
	Change in % and Tonnes	N/A	Increase of 14.2% or 1.51 tonnes	Increase of 14.2% or 1.51 tonnes	N/A	N/A
	Rationale	N/A	Reduction of the control efficiency for FUGDDG, FUGRAIN1, FUGRAIN2 and FUGRAIN3 from 95% to 90%	Reduction of the control efficiency for FUGDDG, FUGRAIN1, FUGRAIN2 and FUGRAIN3 from 95% to 90%.	N/A	N/A
	No plans to reduce the creation of PM _{2.5} .					
Particulate Matter (PM₁₀) NA-M09	2016	0	11.94	11.94	0	0
	2017	0	13.43	13.43	0	0
	Change in % and Tonnes	N/A	Increase of 12.5% or 1.50 tonnes	Increase of 12.5% or 1.50 tonnes	N/A	N/A
	Rationale	N/A	Reduction of the control efficiency for FUGDDG, FUGRAIN1, FUGRAIN2 and FUGRAIN3 from 95% to 90%	Reduction of the control efficiency for FUGDDG, FUGRAIN1, FUGRAIN2 and FUGRAIN3 from 95% to 90%	N/A	N/A
	No plans to reduce the creation of PM ₁₀ .					

Certification

As of May 23, 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 May 23, 2018



Jim Grey, CEO
IGPC Ethanol Inc.