



Public Reporting Under O. Reg. 455/09
Public Plan Summary

IGPC Ethanol Inc.

December 18, 2013



BASIC FACILITY INFORMATION

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Substances Included in the Plan		
<ul style="list-style-type: none"> ▪ Ethyl Alcohol (CAS No. 64-17-5) ▪ Ammonia (CAS No. NA – 16) ▪ Nitrogen Oxides (CAS No. 11104-93-1) ▪ Carbon Monoxide (CAS No. 630-08-0) 		
Facility Identification and Site Address		
Company Name	Integrated Grain Processors Co-operative Inc. (IGPC Ethanol Inc.)	
Facility Name	IGPC Ethanol Inc. – Aylmer Plant	
Facility Address	Physical Address:	Mailing Address:
	89 Progress Drive, Aylmer, ON N5H 2R9	P.O. Box 205, Aylmer, ON N5H 2R9
Spatial Coordinates of Facility	Easting: 502005 m, Northing: 4736654 m (Zone 17, NAD 83 Datum)	
Number of Employees	50	
NPRI ID	11696	
Primary North American Industrial Classification System Code (NAICS)		
2 Digit NAICS Code	32 – Manufacturing	
4 Digit NAICS Code	3251 – Basic Chemical Manufacturing	
6 Digit NAICS Code	325190 – Other Basic Organic Chemical Manufacturing	
Facility and Planner Contact Information		
Facility Public Contact & Facility TSRP Coordinator Contact	Jim Grey, CEO	IGPC Ethanol Inc.
	Email: jgrey@igpc.ca	89 Progress Drive, Aylmer, ON N5H 2R9
	Phone: (519) 765-2575	



PLAN SUMMARY FOR EACH SUBSTANCE

ETHYL ALCOHOL (CAS NO. 64-17-5)	
Statement of Intent	
In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to continuous improvement, IGPC Ethanol intends to reduce or minimize the use or creation of the TRA listed substances wherever possible.	
Objectives	
The IGPC Ethanol Inc. facility does not intend to implement a reduction option for Ethyl Alcohol through the Toxic Reduction Act and Regulation. Ethyl Alcohol is created as it is the product manufactured at IGPC Ethanol Inc. The facility is modern with state of the art process tracking and controls, staffed by a knowledgeable team and will continue to operate in this manner in an effort to continue minimizing the potential loss of any product.	
Description of Creation of Substance	
The Ethyl Alcohol created is derived from corn that is received at the facility and then milled into a coarse powder. The grain powder is then mixed with water and other process agents, heated and stirred into a slurry. The slurry is pumped into a fermentation tank, where ethanol is generated by yeast.	
Rationale for No Option(s) to be Implemented	
In accordance with s. 4(1)6 of the Toxic Reduction Act, the IGPC Ethanol Inc. facility has completed a detailed technical, and in some cases an economical, review of all proposed options within the seven mandatory categories and as a result of this in-depth evaluation, is choosing not to implement any of the options. The IGPC Ethanol Inc. facility will continue to investigate process efficiencies and continuous improvement efforts in an effort to continue minimizing the potential loss of any product where feasible.	

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and IGPC Ethanol Inc. facility for Ethyl Alcohol, dated December 18, 2013.



AMMONIA (CAS NO. NA - 16)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to continuous improvement, IGPC Ethanol intends to reduce or minimize the use or creation of the TRA listed substances wherever possible.

Objectives

The facility intends to reduce the use of Ammonia by 4 tonnes or 2% by December 31, 2013 with the implementation of the two selected reduction options. IGPC Ethanol Inc. will strive to meet the expected reductions quantified with this plan.

Description of Use of Substance

Ammonia is added to the Mash Cooking process when the solution in the system becomes overly acidic and the pH needs to be raised. Ammonia reacts with the mixture in the slurry tank, increasing the pH and breaking down to non-toxic by-products of the chemical reaction.

Description Option(s) to be Implemented

IGPC Ethanol Inc. intends to implement the following two options to achieve a reduction in Ammonia usage:

- B3.1 - Install weights on the hose to ensure that the bleed off-lines remain submerged within water containment during the receiving process, therefore eliminating leaks, and
- B7.1 - Implement a more comprehensive receiving checklist, and have an IGPC employee supervise filling operations to ensure proper steps are followed when unloading ammonia to prevent leaks.

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and IGPC Ethanol Inc. facility for Ethyl Alcohol, dated December 18, 2013.



NITROGEN OXIDES (CAS NO. 11104-93-1) & CARBON MONOXIDE (CAS NO. 630-08-0)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to continuous improvement, IGPC Ethanol intends to reduce or minimize the use or creation of the TRA listed substances wherever possible.

Objectives

The facility intends to reduce the creation of Nitrogen Oxides by a minimum of 2 tonne or 4% and Carbon Monoxide by a minimum of 3.6 tonnes or 4% by December 31, 2014 with the implementation of the four selected reduction options. IGPC Ethanol Inc. will strive to meet the expected reductions quantified with this plan.

Description of Creation of Substance

Nitrogen Oxides and Carbon Monoxide are greatly generated through the combustion of mixtures of fuels (largely natural gas). A small portion of Carbon Monoxide is also generated through the fermentation process.

Description Option(s) to be Implemented

IGPC Ethanol Inc. intends to implement the following four options to achieve a reduction in the creation of both Nitrogen Oxides and Carbon Monoxide:

- C3.1 - Replace main gas valve on thermal oxidizer gas train and main valve on both dryer gas trains,
- C3.2 - Improve building condition,
- C4.1 - Daily site plant walkthroughs, and
- C7.1 - Train employee to be a Certified Energy Manager.


This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and IGPC Ethanol Inc. facility for Ethyl Alcohol, dated December 18, 2013.



Certification by Highest Ranking Employee

As of December 18, 2013, I, Jim Grey, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Ethyl Alcohol (CAS No. 64-17-5).....	December 18, 2013
▪ Ammonia (CAS No. NA - 16).....	December 18, 2013
▪ Nitrogen Oxides (CAS No. 11104-93-1).....	December 18, 2013
▪ Carbon Monoxide (CAS No. 630-08-0).....	December 18, 2013



Jim Grey
CEO
IGPC Ethanol Inc.



IGPC Ethanol Inc.

Certification by Licensed Planner

As of December 18, 2013, I, Brad Bergeron, certify that I am familiar with the processes at IGPC Ethanol Inc. 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 toxic substance reduction plans referred to below for the toxic substances and that the plans comply with the Act and Ontario Regulation 455/09 (General) made under that Act.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Ethyl Alcohol (CAS No. 64-17-5)	December 18, 2013
▪ Ammonia (CAS No. NA - 16).....	December 18, 2013
▪ Nitrogen Oxides (CAS No. 11104-93-1).....	December 18, 2013
▪ Carbon Monoxide (CAS No. 630-08-0).....	December 18, 2013

Brad Bergeron, Planner License #0242
Senior Project Manager / Toxic Substance Reduction Planner
RWDI AIR Inc.