

**Niagara CAER Group**  
Community Awareness – Emergency Response

**Chemical Companies**  
**Emissions Report**  
**(NERM)**

**2015 Report for 2014 Emissions**

# Niagara CAER Group Chemical Companies

## 2015 Emissions Report

(For 2014)

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## ***Introduction***

- Issued annually by the Niagara CAER Group Chemical Companies.
- A commitment to being open with the public.
- This is the twenty second year of publication.
- Production levels have decreased by 19% in 2014 from 2013.
- Member companies strive to reduce chemical emissions and chemical waste.
- Results are presented as charts and tables.

## ***Summary of Report***

- 2014 Chemical emissions are up slightly from previous year.
- Chemical emissions Per Kg. of production were up slightly than the previous year.
- Combustion emission levels per kilogram of production were up slightly from previous year as production levels dropped. This is a result of lower production levels and variances in heating loads.
- Waste generation was up slightly from previous year.

**NIAGARA CAER  
Member Companies**

**Chemtrade Logistics Inc.**

**CYTEC Canada Inc.**

**Durez Canada Company Ltd.**

**Kemira Chemicals Canada Inc.**

**Mancuso Chemicals Limited**

**Oxy Vinyls Canada Co.**

**Photech Environmental Solutions**

## **Member Companies Contact Names**

<b>Company</b>	<b>Contact Name and Number</b>	
<b>Chemtrade Logistics Inc.</b>	<b>Tim Haniford</b>	<b>905-356-8763</b>
	<b>Joe Iuliano</b>	<b>905-354-3233</b>
<b>CYTEC Canada Inc.</b>	<b>Amy Mather</b>	<b>905 374-5786</b>
	<b>Ben Kyle</b>	<b>905-374-5881</b>
<b>Durez Canada Company Ltd.</b>	<b>Robert Hunt</b>	<b>905-346-8615</b>
<b>Kemira Chemicals Canada Inc.</b>	<b>Bruno Montpetit</b>	<b>905-688-6470</b>
	<b>Lynn Blanchard</b>	<b>905-688-6470</b>
<b>Mancuso Chemicals Ltd.</b>	<b>Dave Senior</b>	<b>905-357-3626</b>
	<b>Mike Davies</b>	<b>905-357-3626</b>
<b>Oxy Vinyls Canada Co.</b>	<b>Jim Segada</b>	<b>905-374-5601</b>
	<b>Jane Perz</b>	<b>905-374-5629</b>
<b>Phototech Environmental Solutions</b>	<b>John Dunker</b>	<b>877-938-9465</b>

## **Chemicals Manufactured and Uses**

- **Cytec: Phosphine, Fumigants, Mineral Extractants, Speciality Phosphine Chemicals**  
**Electronics Industry, Metal Recovery, Mining industry, Fumigation, Biocides**
- **Durez: Phenolic Resins and Compounds,**  
**Automotive, Brake pistons, Clutch Facings, Electrical Applications.**
- **Chemtrade Logistics: Distributes Sulphur Products, Sulphur Dioxide and Molten Sulphur.**  
**Pulp and paper, Electronics, mines and cyanide destruction.**
- **Oxy Vinyls: PVC Resins**  
**Construction: Pipe & fittings, House Siding, Window Frames, Floors, Wallpaper, Fencing, roof and pool membranes. Packaging, Medical Tubing, Wire and Cable, Automotive dashes, bumpers and trim.**
- **Kemira: Defoamers, Dyes and specialty Chemicals.**  
**Water treatment and allied processes in pulp and paper production; oil & mining processes, and paint formulation.**
- **Mancuso: Phenolic, Furan and Alkyd Resins, Aryl Sulfonic Acids,**  
**Binder systems for foundries and Alkyds for Industrial Coatings.**
- **Photech: Recycle paint, Recover Hydrocarbons.**

**NIAGARA CAER GROUP**  
**2014 COMPOSITE PROFILE**  
**For 2015 Emissions Report**

		2014	2013
Number of Employees		389	369
Payroll (Including Benefits)	\$	36,927,080	33,653,760
Taxes	\$	963,379	947,898
Utilities	\$	12,518,922	11,056,917
Value of Supplies and Services	\$	16,259,200	15,430,169
Value of Sales	\$	508,358,916	447,896,451
Percent of Products Exported	%	79	75
Production Levels,	kg	302,515,809	373,961,940
2015 Production Estimate,	kg	319,142,328	
Charity Support (United Way etc.)	\$	44,283	48,143

# ***Explanations***

## **Chemical Emissions**

- Chemical emissions for 2014 increased by 3% over 2013 levels
- Production levels were down by 19% from 2013.
- 2014 emission levels increased by 3% despite lower production levels
- Some chemical emissions were reduced while others increased due to product mix and calculations and formulas for the NPRI report.

## **Chemical Wastes**

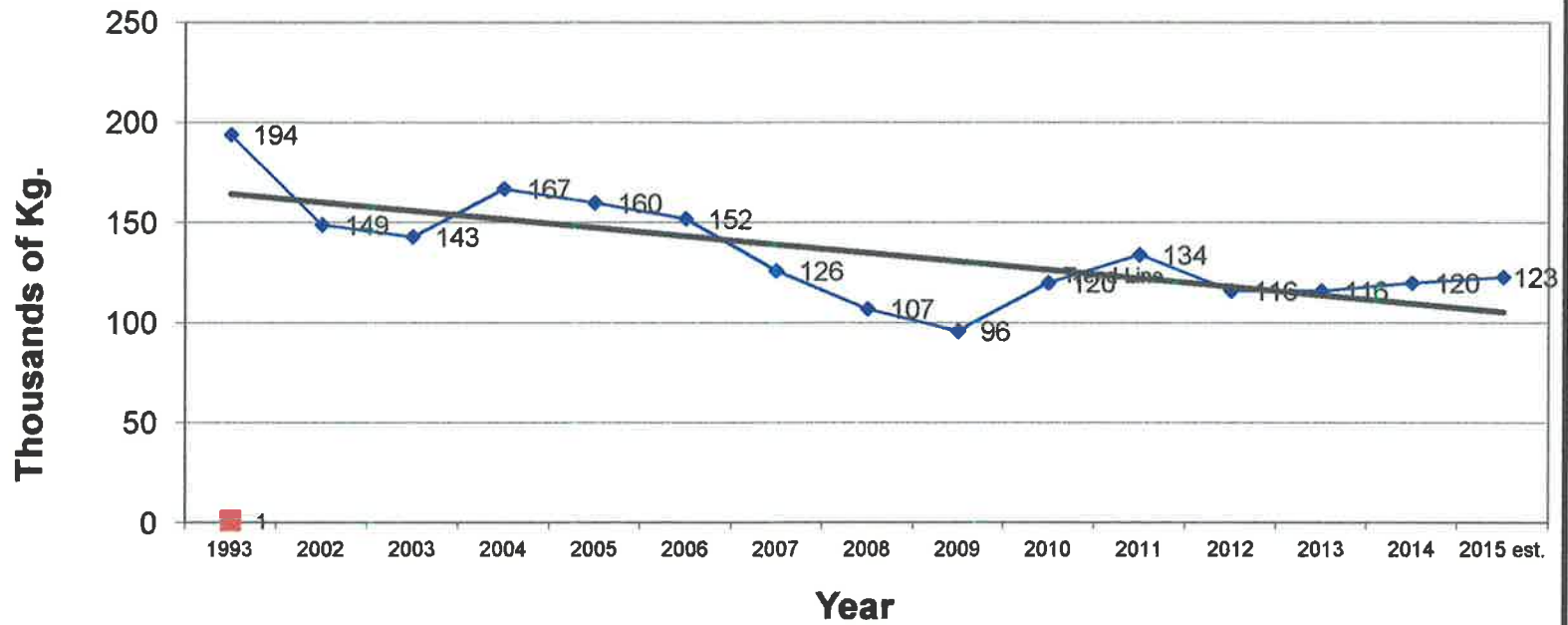
- Chemical wastes were increased by 17% from 2013 levels.
- Chemical wastes per kg of production increased over the previous year due to lower production levels
- Chemical wastes are sometimes accumulated over time and sent for treatment.
- Plants are doing a great job in controlling waste to landfill, incineration and water.
- More recycling is being done to reduce waste materials.
- The majority of wastes are recycled/treated waste.

## **Combustion Emissions**

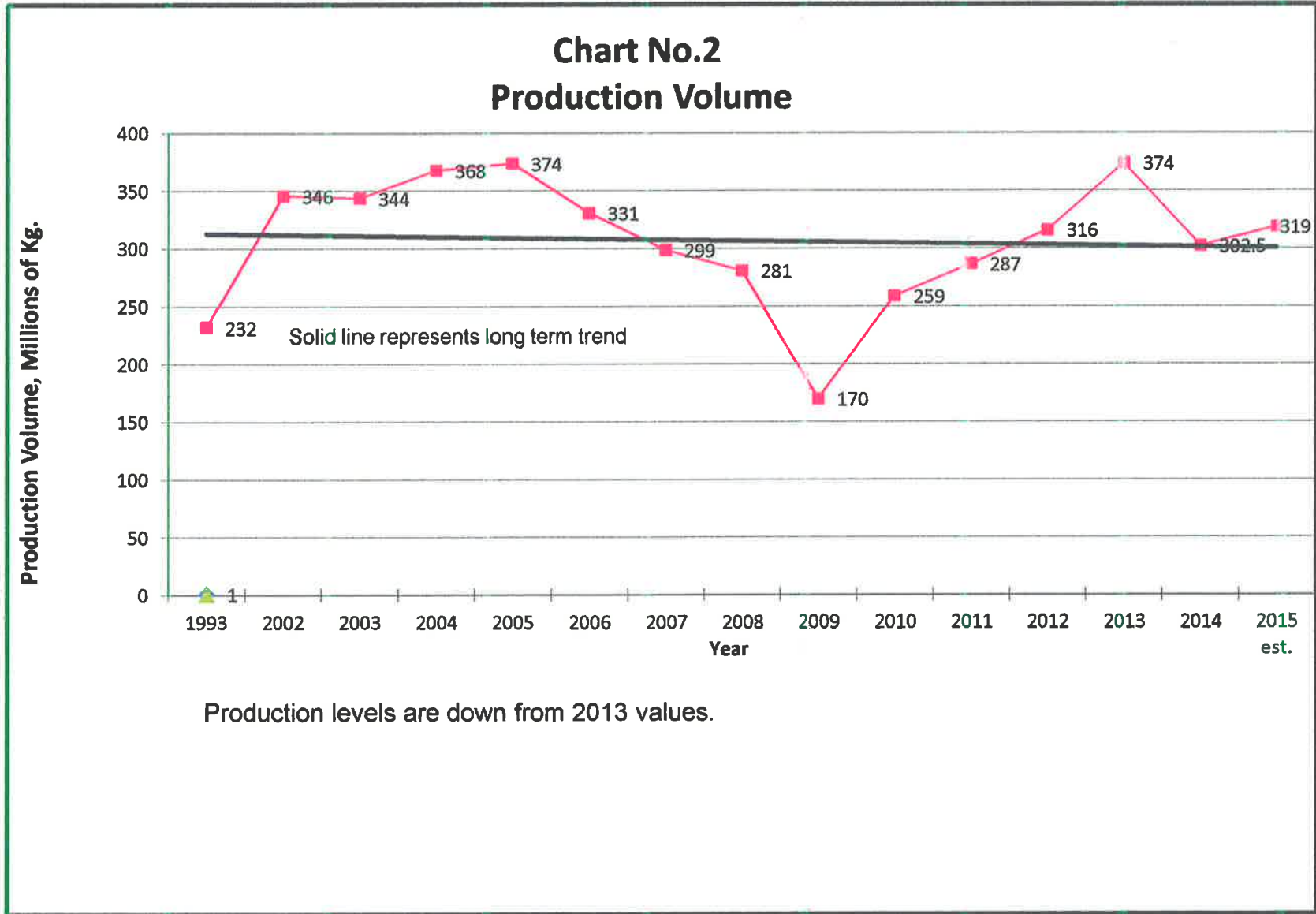
- Greenhouse gases increased by 12% from 2013.
- Combustion emissions are tied directly to production levels and heating requirements.
- Combustion levels are variable due to weather conditions.



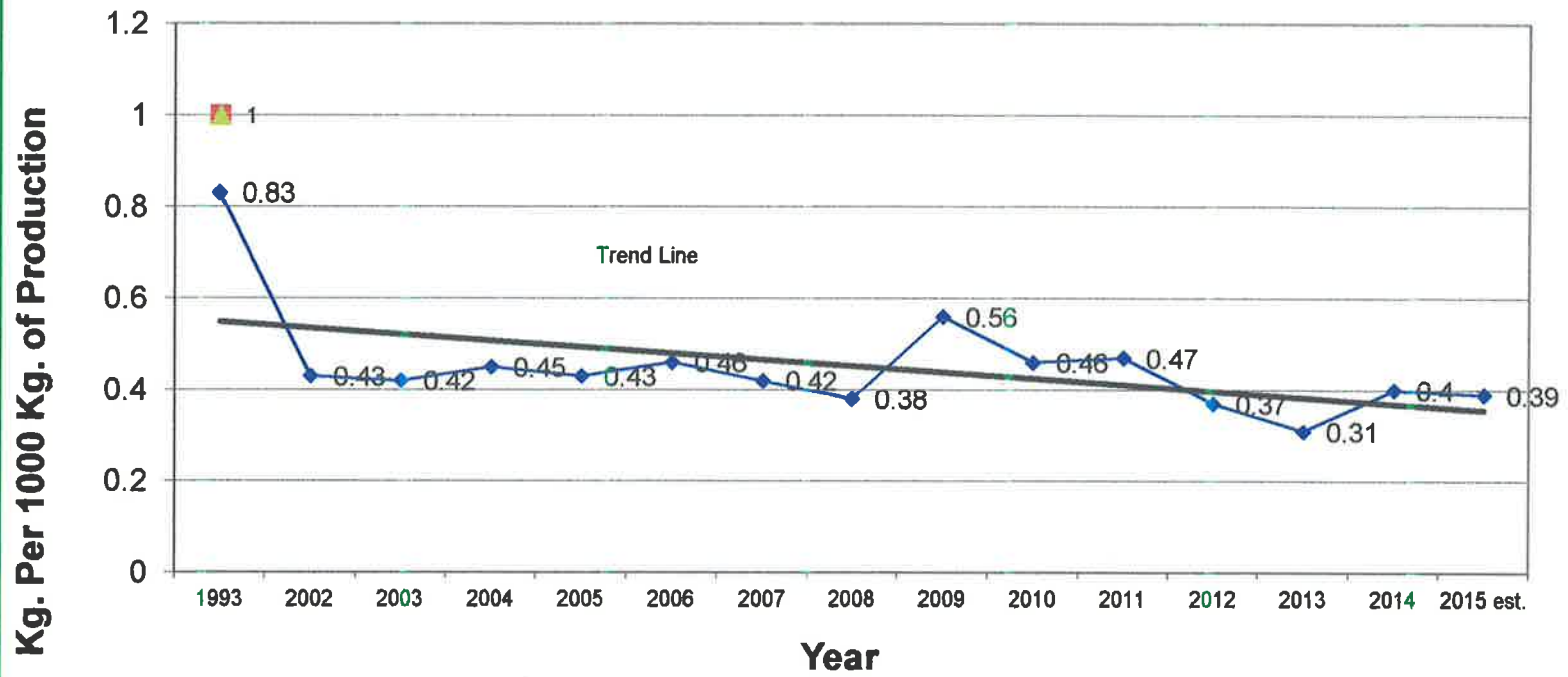
**Chart No. 1  
Chemical Emissions**



Overall Chemical Emissions increased slightly (3%) from 2113 levels.

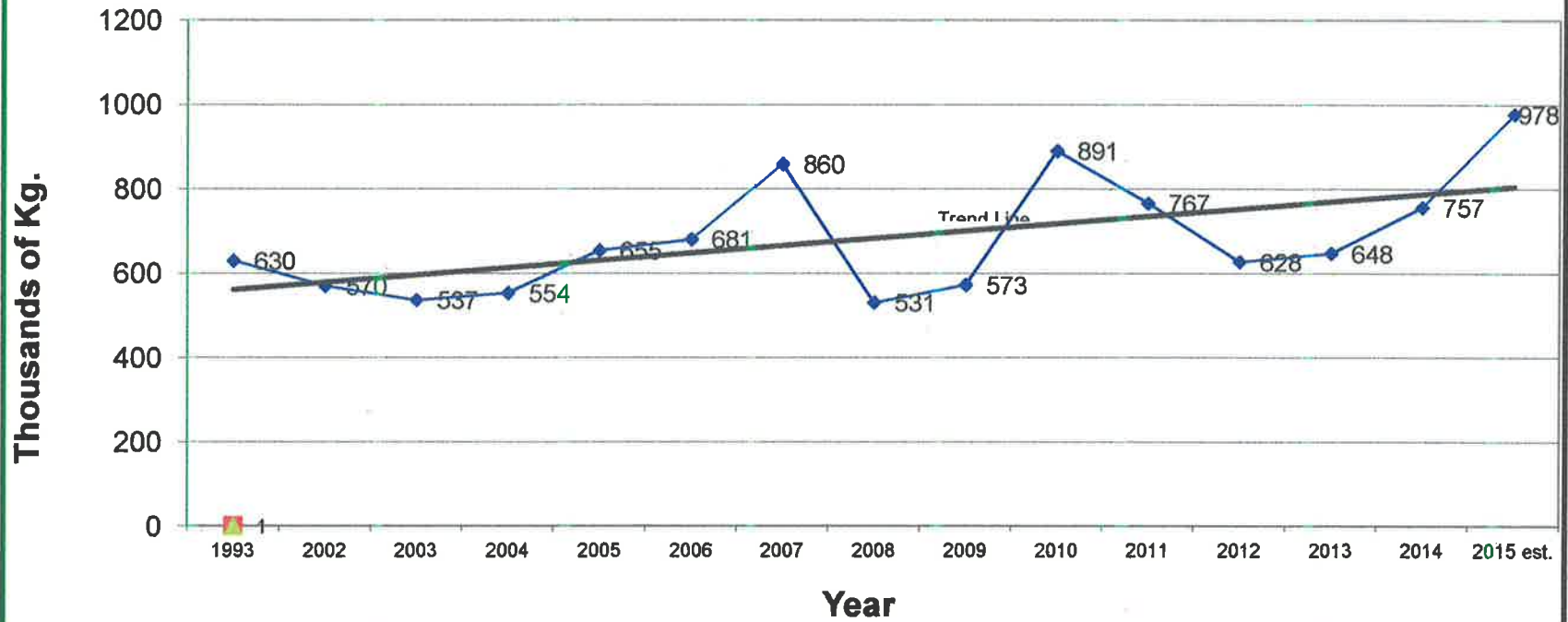


**Chart No. 3**  
**Chemical Emissions Per 1000 Kg. Of Production**



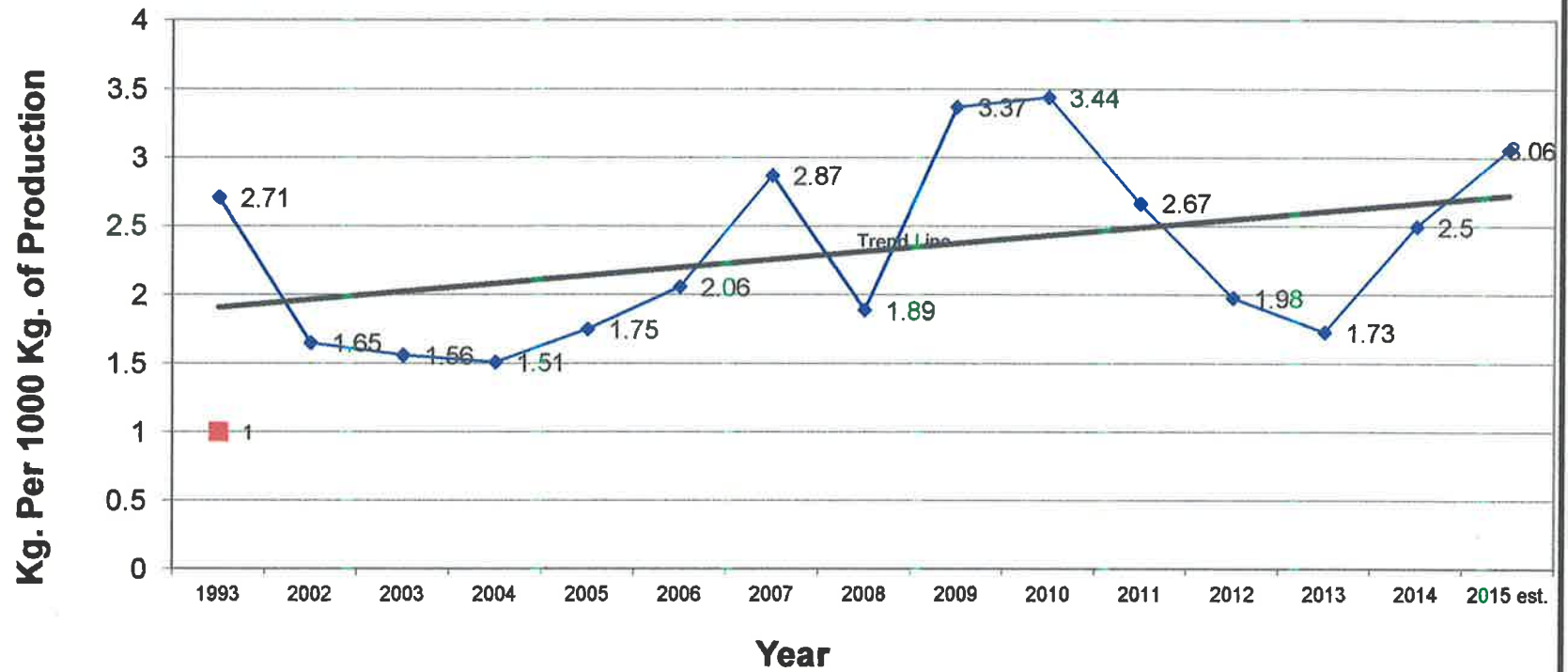
Chemical emissions per kg of production were up slightly over 2013 values..

**Chart No. 4  
Chemical Wastes**

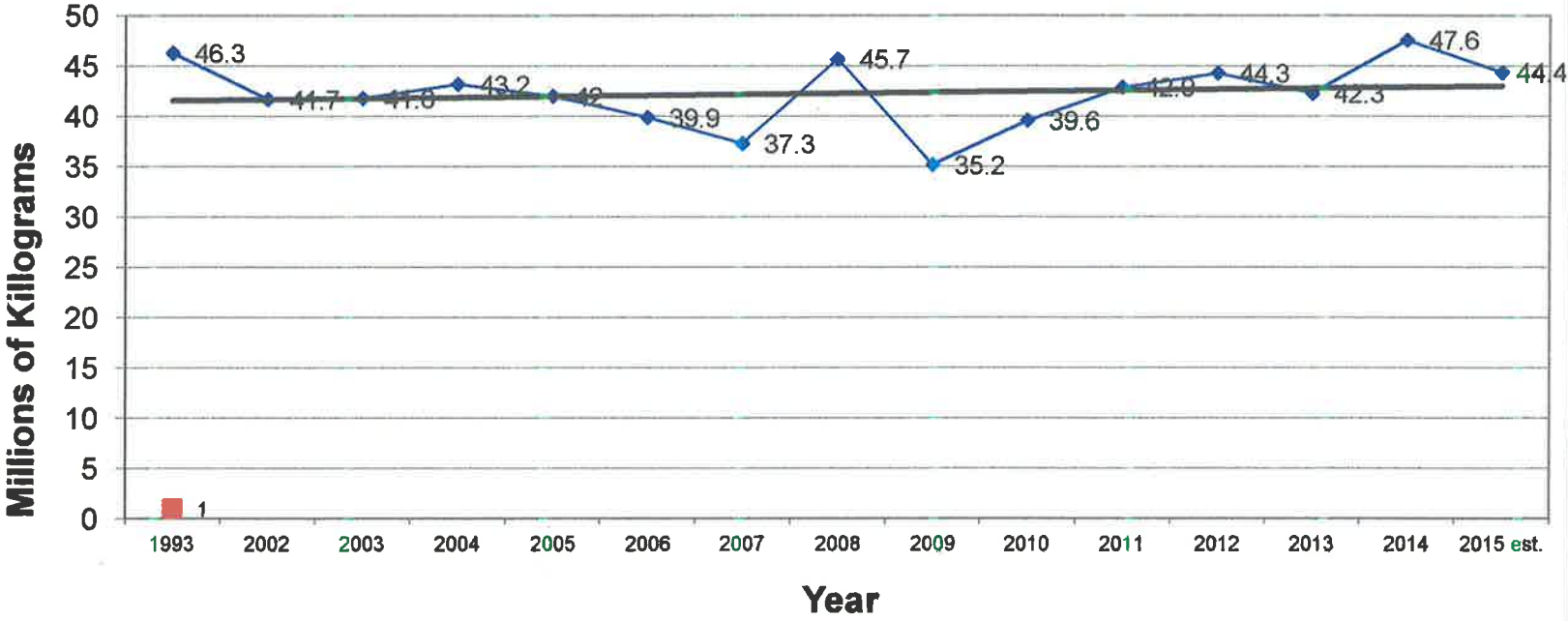


Chemical Wastes are accumulated over time and periodically shipped out for treatment. As a result, depending on the shipping dates, there can be big swings in "apparent" generation of wastes.

**Chart No. 5**  
**Chemical Wastes Per 1000 Kg. of Production**

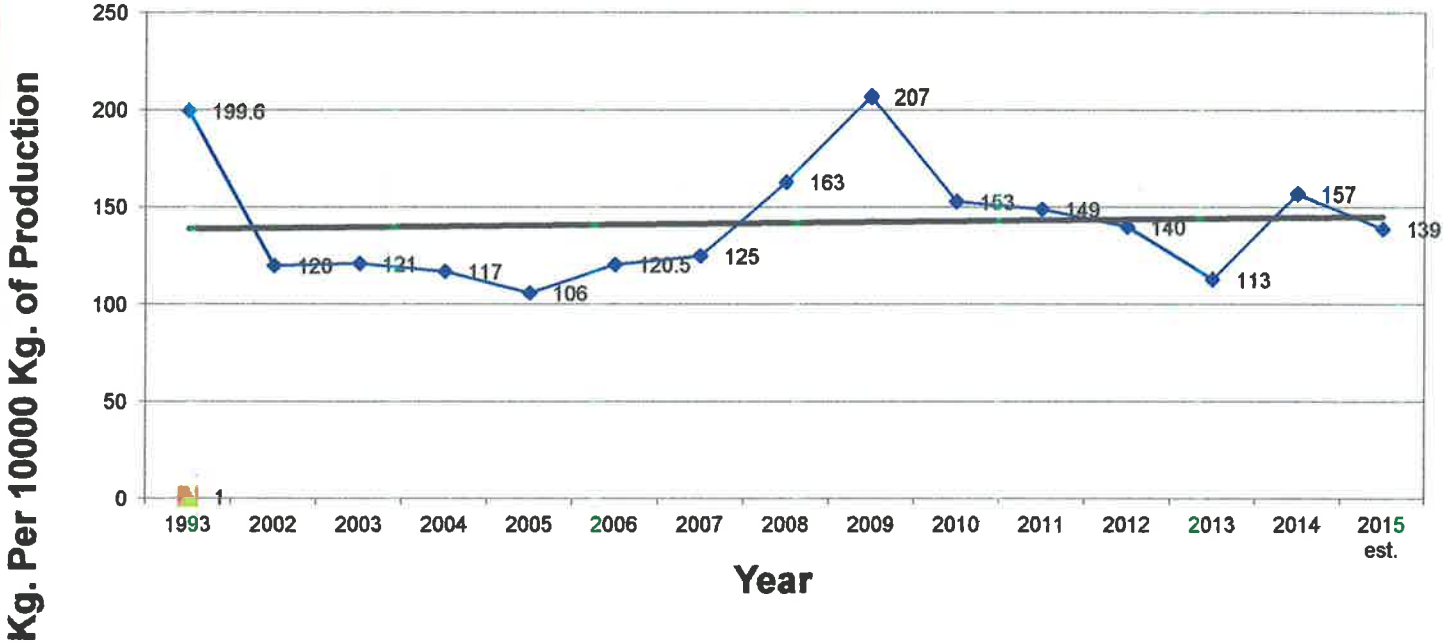


**Chart No. 6  
Combustion Emissions**



Combustion Emissions were up slightly from 2013 levels.

**Chart No. 7**  
**Combustion Emissions per 10000 Kg. of Production**



**Chemical Emissions to Air and Water**  
**Year 2014 Emissions and Comparisons with 2013 Results**  
**Table 1**

Plant No.	Chemical Name	Amount Released in 2012 Kilograms		Total 2014 kg.	Total 2013 kg.	% Change From 2013	Estimate 2015 kg.
		Waterway	Air				
2	Nitrogenous Material	1218		1218	1438	-18	1500
1,2,3	Ammonia	921	29,771	30,692	27,491	+11.6	32,350
2,3,5,6	Methanol		767	767	629	+22	723
2	Iso Octane		4800	4800	5720	-16	5,500
2	Vinyl Chloride	1	402	403	615	-35	500
6	Hydrochloric Acid				0		
3,5	Kerosene Type Solvents				117		
3,5	Ethyl Alcohol		55,081	55,081	50239	+10	57,000
1,2	Nitrate Ion	18,813		18,813	22,514	-19	17,500
1,5	Isopropanol		73	73	137	-47	100
2,3,6	Phenol	3	4,029	4,032	3,361	+20	4,300
1,3,6	Formaldehyde		67	67	67	0	66
5	Glycol Ether		269	269	198	+36	263
2	Oil and Grease	988	661	1,649	985	+67	1,022
2	Phosphorus Salts	211		211	251	-16	225
2	Aluminum Ion	94		94	99	-.5	100
5	Acetic acid		2168	2168	1879	+15	1,737
4	Sulphur Dioxide		178	178	830	-79	200
	Emissions less than 100 kg./yr.*	8	160	168	107	+57	160
	<b>Total Emissions, kg.</b>	<b>22,257</b>	<b>98,426</b>	<b>120683</b>	<b>116,677</b>	<b>+3.4</b>	<b>122,746</b>

Identification of Companies: (1) Cytec (2) Oxy Vinyls (3) Durez (4) Chemtrade Logistics (5) Kemira Chemicals (6) Mancuso Chemicals

\*Includes: zinc; HCFC; cyanide; calcium hydroxide; ferric oxide; carbon black; naphthalene; 1,2,4-trimethyl benzene; furfuryl alcohol; ethyl benzene; gasoline, Toluene, Xylene



## Chemical Wastes

### Year 2014 Data and Comparisons with 2013 and 2015 Estimates

#### Table 2

Plant No.	Chemical Name	Amount Transferred in 2014 Kilograms		Total 2014 Kg	Total 2013 Kg	% Change From 2013	Estimate 2015 kg.
		Landfill	Recycled/ Treated				
1	Tributyl-Phosphine Sulfide	42,698		42,698	12,269	+348	20,000
3,6	Phenol*	1,574	39,505	41,079	168,269	-75	198,000
1,2,5,6	Liquid Industrial Waste (Oils,etc)		211,586	211,586	234,035	-10	250,000
2	Vinyl Resins*	77,088	0	77,088	61,222	+26	120,000
1	Phosphorus Salts		2,479	2,479	1,196	+107	2,700
1,2,4,5	Waste Misc. Haz. Prod. & Rinses	23,234	324,088	347,322	159,717	+117	365,000
3	Formaldehyde*	84	12,348	12,432	11,308	+10	1,300
4	Sodium Hydroxide		6,330	6,330	5,522	+15	5,500
6	Polymer Resin Solutions ***		15,667	15,667	0		16,000
6	Chromic acid Solutions ***		132	132	0		0
6	Isocynate Solution ***		272	272	0		0
Chemicals with wastes of 100 Kg. or less per year **		95		95			
Total Chemical Wastes		144,773	612,407	757,180	647,855	+17	978,500

Identification of Companies: (1) Cytec (2) Oxy Vinyls (3) Durez (4) Chemtrade Logistics (5) Kemira Chemicals (6) Mancuso Chemical

\*Amounts shown do not include material recycled into a customer's process stream and converted into a finished product.

\*\* Includes: Mercury and Batteries.

\*\*\* Not reported in previous years.

**Combustion Emissions**  
**Burning Fuel For Steam Generation And Drying**  
**Emissions for 2014 and 2013 and Estimates for 2015**

**Table 3**

Combustion Product Component	Amount Released		
	2014	2013	2015 Estimate
Carbon Dioxide      1000 tonnes	46.9	42.23	44.3
Nitrogen Dioxide      tonnes	41.3	36.77	40.4
Carbon Monoxide      tonnes	27.7	26.22	27.7
Sulfur Oxides      tonnes	1.64	1.17	0.965
Methane      tonnes	1.12	0.95	1.2
Volatile Organic Carbon      tonnes	1.6	0.85	2.3
Totals      1000 tonnes	47.6	42.3	44.37

# Non Plant CAER Members

## *Fire Departments From*

Fort Erie, Niagara Falls, Thorold, St Catharines

Niagara Region Police

Niagara Region EMS

Niagara Health System

Niagara College

## **Associate CAER Members**

Team 1 Academy

First Response Environmental

Terrapure Emergency Response Services

Quantum Murray Emergency Response and Training

GHD Incident Response Services

# **Niagara CAER Group**

**Community Awareness – Emergency Response**

**For more information visit the web site at**

**[www.niagaracaer.com](http://www.niagaracaer.com)**

**or contact the Niagara CAER Group**

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