

***What are the primary Hazardous Air Pollutant
(HAP) emissions in the St. Clair Superior
neighborhood for the year 2002?***

Prepared by the U.S. Environmental Protection Agency for

***The Cleveland Clean Air Century Campaign
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What are the primary Hazardous Air Pollutants (HAP) emissions in the St. Clair/Superior neighborhood in 2002?

Mobile Sources

Mobile source emissions were estimated for Cuyahoga County as a whole and not down to the level of the St. Clair/Superior neighborhood. It is very difficult to develop inventories for specific communities because detailed data are required. Much of this information, such as the number of hours an individual lawn mower operates during a specific period of time, is very difficult to obtain. However, based on available data and observations, mobile emissions in St. Clair/Superior are characterized as follows.

- Onroad vehicles should be considered significant sources, specifically in “stop and go” traffic areas such as St. Clair and Superior Avenues and 79th Street. Traffic along Interstate 90 may also be a significant source of pollutants.
- Emissions from commercial and industrial engines may be significant near facilities that extensively use portable generators, welding equipment, compressors, and fork lifts.
- Emissions from trains traveling through the northern part of the St. Clair/Superior community tend to be less significant than most other sources, as they occur sporadically and are in the community for only brief periods of time.

Nonpoint Sources

Nonpoint sources were estimated for all of Cuyahoga County, not individual communities. However, based on available data and on site visits to this neighborhood, a number of nonpoint sources were identified that are important contributors to local air quality concerns. These source categories include residential heating, industrial boilers, dry cleaning, auto body shops, gas stations, and chromium plating.

Point Sources

62,615 people = 4.5% of Cuyahoga population
 24 facilities in inventory = 15% of facilities inventoried
 34 tons per year urban HAP = 12% of HAP inventoried

<u>Point Source HAP - St. Clair/Superior</u>		
	<u>Tons</u>	<u>% of County Emissions</u>
Trichloroethylene	20	7
Perchloroethylene	9	3
Formaldehyde	3	1
Lead	0.5	0.3
Benzene	0.3	0.1
Other HAP	<u>1</u>	<u>0.5</u>
	33.8 tpy	12%

<u>Top 5 Point Sources - St. Clair/Superior</u>		
	<u>Tons</u>	<u>% of County Emissions</u>
Hi Tech Metal (East 55 th St)	8.5	3
Manufacturer’s Plating	8	3
Hi Tecmetal (Marquette Ave).	6.3	2
Nettleton Steel Treating	6.3	2
East Ohio Gas Co.	<u>1.5</u>	<u>0.5</u>
	30.6 tpy	10.5%

Which industries in the St. Clair/Superior neighborhood are included in the inventory?

Accurate Plating
American Brass
Buschman Corp

CEI - Lake Shore Plant
Chrome Industries
Cleveland Public Power

Day-Glo Color Corp
Dominion Cleveland Thermal
Durable Plating

East Ohio Gas Company
GE Lighting Total Emissions
Greenfield Crematory

Harnischfeger (Horsburgh and Scott)
Hi Tech Metal (East 55th Street)
Hi Tecmetal (Marquette Avenue)

Manufacturers Plating
Mel's Cleaners
Nettleton Steel Treating

Prince Platers
Quality Plating
Redmond Waltz Electric

Sales Promotion Printing
SIFCO Forge Group
Techmetal

Emissions of Industries in St. Clair/Superior

Accurate Plating 6512 Carnegie Avenue Cleveland, Ohio	Total 23.43 lbs/yr
Chromium	23.43
American Brass 5000 Superior Avenue Cleveland, Ohio	Total 0.38 lbs/yr
Arsenic	0.01
Cadmium	0.02
Chromium	0.01
Lead	0.32
Mercury	0.01
Nickel	0.01
Buschman Corporation 4100 Payne Avenue Cleveland, Ohio	Total 0.09 lbs/yr
Chromium	0.09
CEI - Lake Shore Plant 6800 South Marginal Road Cleveland, Ohio	Total 1,796.50 lbs/yr
Acetaldehyde	216.88
Acrolein	110.20
Arsenic	155.83
Benzene	494.01
Beryllium	8.00
Cadmium	19.40
Chromium	98.82
Dioxins/Furans	1.33E-06
Ethylene Dichloride	15.20
Formaldehyde	93.13
Lead	159.90
Manganese	186.25
Mercury	6.07
Methylene Chloride	110.20
Nickel	106.42
Perchloroethylene	16.34
Polycyclic Organic Matter	0.15
Chrome Industries 3041 Perkins Avenue Cleveland, Ohio	Total 0.47 lbs/yr
Chromium	0.47
Cleveland Public Power 13915 Aspinwald Avenue Cleveland, Ohio	Total 22.92 lbs/yr
1,3-Butadiene	0.01
Acetaldehyde	1.19
Acrotoein	0.19
Benzene	0.36
Formaldehyde	21.10
Polycyclic Organic Matter	0.07

Day-Glo Color Corporation 4515 St. Clair Avenue Cleveland, Ohio	Total 2,464.00 lbs/yr
Formaldehyde	2,464.00
Dominion Cleveland Thermal 1901 Hamilton Avenue Cleveland, Ohio	Total 1,229.20 lbs/yr
Acetaldehyde	36.18
Acrolein	15.96
Arsenic	23.86
Benzene	71.75
Beryllium	1.18
Cadmium	3.19
Chromium	15.13
Dioxins/Furans	1.93E-07
Ethylene Dichloride	2.20
Formaldehyde	46.32
Lead	821.51
Manganese	29.85
Mercury	45.79
Methylene Chloride	15.96
Nickel	97.92
Perchloroethylene	2.37
Polycyclic Organic Matter	0.03
Durable Plating 4401 St. Clair Avenue Cleveland, Ohio	Total 0.13 lbs/yr
Chromium	0.13
East Ohio Gas Company 1201 East 55 th Street Cleveland, Ohio	Total 3,065.56 lbs/yr
1,1,2,2-Tetrachloroethane	1.82
1,3-Butadiene	12.17
1,3-Dichloropropene	1.20
Acetaldehyde	380.98
Acrolein	234.24
Benzene	20.05
Carbon Tetrachloride	1.67
Chloroform	1.30
Ethylene Dibromide	2.02
Ethylene Dichloride	1.08
Formaldehyde	2,406.18
Methylene Chloride	0.91
Polycyclic Organic Matter	1.27
Vinyl Chloride	0.68
GE Lighting 1814 East 45 th Street Cleveland, Ohio	Total 50.00 lbs/yr
Lead	50.00

Greenfield Crematory 5475 Lake Court Cleveland, Ohio		Total 2.10 lbs/yr
Arsenic	0.05	
Beryllium	2.20E-03	
Cadmium	0.18	
Chromium	0.05	
Dioxins/Furans	2.64E-05	
Formaldehyde	3.46E-07	
Lead	1.13	
Mercury	0.64	
Nickel	0.06	
Polycyclic Organic Matter	1.24E-07	
Harnischfeger 5114 Hamilton Avenue Cleveland, Ohio		Total 10.00 lbs/yr
Chromium	5.00	
Nickel	5.00	
Hi Tech Metal 1101 East 55 th Street Cleveland, Ohio		Total 16,855.10 lbs/yr
Chromium	1.00	
Lead	60.60	
Nickel	6.00	
Perchloroethylene	367.50	
Trichloroethylene	16,420.00	
Hi Tecmetal 1177 Marquette Avenue Cleveland, Ohio		Total 12,754.00 lbs/yr
Lead	117.00	
Perchloroethylene	7,960.00	
Trichloroethylene	4,677.00	
Manufacturers Plating 1859 East 63 rd Street Cleveland, Ohio		Total 16,170.00 lbs/yr
Chromium	910.00	
Nickel	180.00	
Trichloroethylene	15,100.00	
Mel's Cleaners 893 East 105 th Street Cleveland, Ohio		Total 907.20 lbs/yr
Perchloroethylene	907.20	
Nettleton Steel Treating 1371 East 45 th Street Cleveland, Ohio		Total 12,754.00 lbs/yr
Perchloroethylene	7,960.00	
Trichloroethylene	4,677.00	
Lead	117.00	
Prince Platers 1530 East 40 th Street Cleveland, Ohio		Total 1.01 lbs/yr
Chromium	1.01	

Quality Plating 1443 East 40 th Street Cleveland, Ohio		Total 95.20 lbs/yr
Chromium	95.20	
Redmond Waltz Electric 4126 St. Clair Avenue Cleveland, Ohio		Total 3.15 lbs/yr
Lead	3.15	
Sales Promotion Printing 6555 Carnegie Avenue Cleveland, Ohio		Total 0.23 lbs/yr
Acetaldehyde	3.95E-05	
Benzene	0.01	
Formaldehyde	0.23	
SIFCO Forge Group 970 East 46 th Street Cleveland, Ohio		Total 137.56 lbs/yr
Acetaldehyde	1.44E-03	
Benzene	0.23	
Chromium	67.00	
Formaldehyde	8.33	
Nickel	62.00	
Techmetal 5466 Lake Court Cleveland, Ohio		Total 1.61 lbs/yr
Cadmium	0.32	
Chromium	0.79	
Manganese	0.11	
Nickel	0.39	