



HAMN Air Monitoring Presentation to HIEA Community Advisory Panel October 9, 2018

Hamilton Air Monitoring Network

Since 2003, the industrial air shed monitoring network in the City of Hamilton has been operated, serviced and maintained by the Hamilton Air Monitoring Network (HAMN). HAMN is a group of industries that are committed to the ongoing measurement of local air quality as part of the Ministry of the Environment, Conservation and Parks (MECP) industrial Source Emissions Monitoring (SEM) program.

Company	HAMN Member	HIEA Member
Air Liquide		✓
AM Dofasco	✓	✓
AM Hamilton East	✓	✓
Bartek	✓	
Baycoat	✓	
Biox	✓	
Birla Carbon	✓	✓
Bunge	✓	✓
Canadian Asphalt		✓
Contanda	✓	✓
FMT	✓	
Harsco	✓	
LaFarge	✓	✓
Sanimax		✓
Shell	✓	
Stelco	✓	✓
Rütgers	✓	✓
Triple M Metals	✓	✓
Terrapure	✓	



2017 HAMN Report

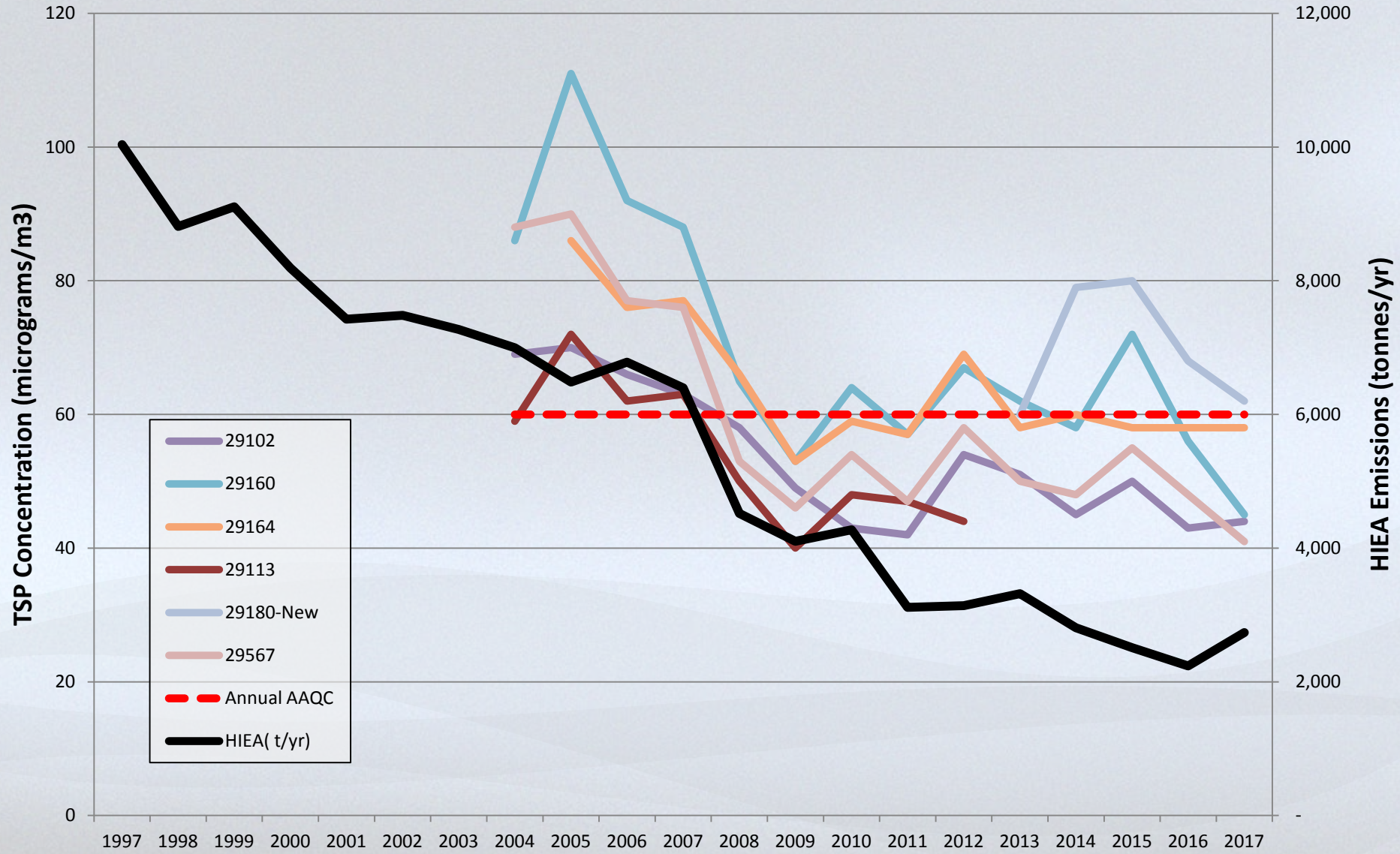
The 2017 HAMN Report shows a general declining trend for the following parameters:

- Sulphur Dioxide (SO₂)
- Total Reduced Sulphur (TRS)
- Oxides of Nitrogen (NO_x)
- Manganese (Mn)
- Benzo[a]Pyrene (B[a]P)
- Benzene

Total Particulate and PM₁₀ parameters show a flat trend.

Total Suspended Particulate Trend

Annual HIEA Emissions and HAMN Measurements



2017 Events

- No Upper Risk Thresholds were exceeded for any parameter.
- No standards or AAQCs were exceeded for SO₂, NO_x.
 - Note: 1-hr std to drop from 250 ppb to 36 ppb in 2023.
- No stations met the annual AAQC for B[a]P or Benzene.
 - Annual AAQCs for B[a]P and benzene are extremely low.
 - ECCC National Air Pollutant Surveillance program in 2016 showed that no monitored city would meet the Ontario AAQC for B[a]P and that selected cities have comparable benzene concentration to Hamilton.

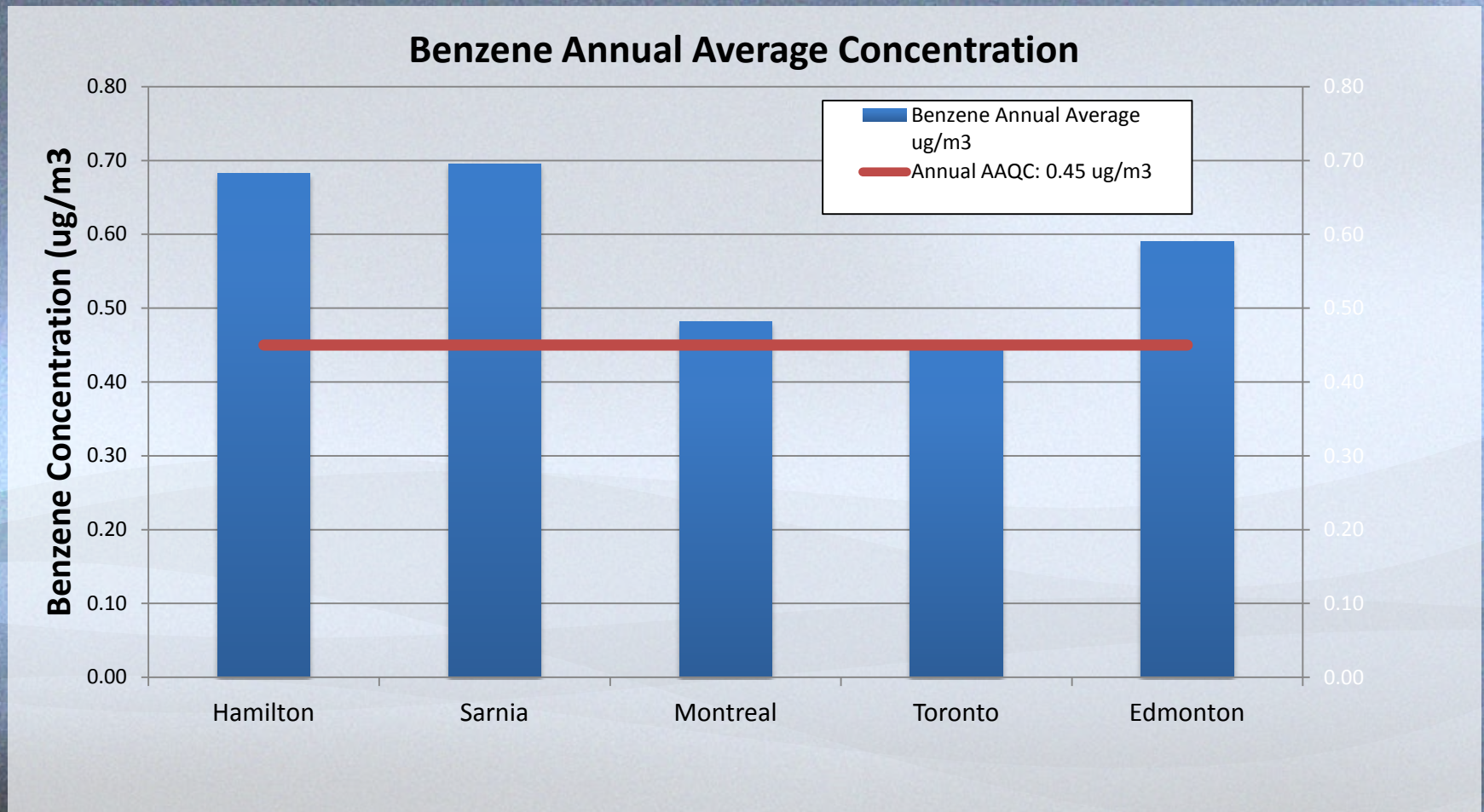
Air Quality complies most of the time.

Parameter	Criteria	No. of Events-2017 (all stations)	Compliance Rate (%)
TRS	10 min standard	224	99.9
TRS	1 hour odour threshold	17	99.95
TRS	24 hour standard	2	99.9
TSP	24 hour AAQC	14	96.1
Manganese	24 hour AAQC	25	91.5
PM ₁₀	24 hour AAQC	126	95.1
B[a]P	24 hour Reference Level	8	90.9
Benzene	24 hour AAQC	14	84.1

Continual Improvement

- Member companies establishing Best Management Practices for dust control. (TSP, PM₁₀)
- AM Dofasco restoring coke plants at a cost of \$100 million. (B[a]P)
- Member companies conducting monitoring studies to identify opportunities to improve TSP (including Mn) and benzene performance.

Hamilton is similar to other Canadian cities.



2016 ECCC, National Air Pollution Surveillance Program data