

2015 AAMJIWNAANG FIRST NATION AIR MONITORING REPORT

The Ministry of the Environment and Climate Change has released its 2015 report on air quality at the Aamjiwnaang First Nation.

KEY RESULTS

Levels of contaminants measured at Aamjiwnaang in 2015 generally met Ontario's air quality standards

Contaminants that were measured above Ontario's standards included benzene, benzo[a]pyrene, and ozone

Results were generally similar to previous years and to other Southwestern Ontario communities

Changes in contaminant levels at the Aamjiwnaang station since monitoring began and between 2014-2015:

2009 – 2015

Suspended particulate	↑ 82%
Benzo[a]pyrene	↑ 1%
Benzene	↑ 12%
Ozone	↑ 12%

Total reduced sulphur	↓ 63%
Nitrogen dioxide	↓ 31%
Sulphur dioxide	↓ 26%
Fine particulate matter	↓ 19%



2014 – 2015

Suspended particulate	↑ 75%*
Benzo[a]pyrene	↑ 73%
Fine particulate matter	↑ 11%

Benzene	↑ 0.3%
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Total reduced sulphur	↓ 67%
Nitrogen dioxide	↓ 4%
Sulphur dioxide	↓ 13%
Ozone	↓ 2%

* Increase observed when the ministry upgraded to a more efficient suspended particulate monitor. Read how the ministry is taking action to reduce other priority contaminants below.

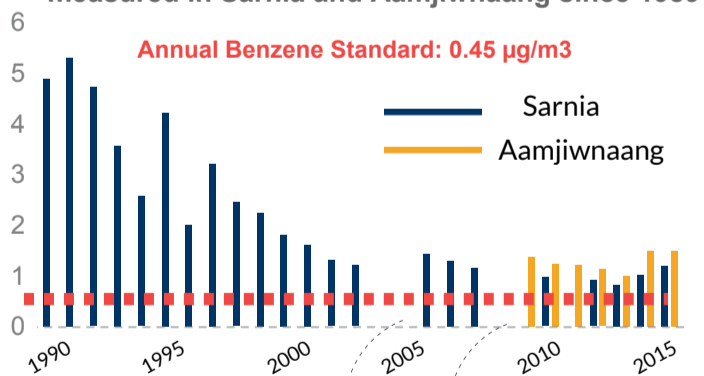
BENZENE

Overall, benzene concentrations in the Sarnia air shed have decreased to about one third of the levels measured 25 years ago.

This decrease over time is largely attributed to federal Benzene in Gasoline regulations that were implemented in 1993.

Annual average benzene concentrations at Aamjiwnaang have been measured above Ontario's standard. The ministry has an action plan to address benzene and other priority contaminants.

Annual Average Benzene Concentrations ($\mu\text{g}/\text{m}^3$) measured in Sarnia and Aamjiwnaang since 1989



Years without data mean that sampling did not occur or not enough samples were taken to calculate an annual average.

Micrograms per cubic metre ($\mu\text{g}/\text{m}^3$):

A unit used to report pollutant concentrations in the atmosphere. One microgram per cubic metre is approximately equal to 4 grains of sugar in an Olympic sized swimming pool.

MINISTRY ACTIONS

Ontario is taking action to reduce priority contaminants in the Sarnia air shed with the implementation of the Sarnia Air Action Plan. The plan includes:

- Enhanced air inspections and improved incident response
- A requirement for industry to provide information on flaring activities and their impact on air emissions and quality
- A Heavy Industry Team of Environmental Officers with specialized training for working with Sarnia's heavy industry
- Focussed inspections on equipment used by the petroleum and petro-chemical sectors where there is a higher risk of emissions of benzene and sulphur compounds

REGULATING INDUSTRY

- The ministry has introduced technical requirements in the Petroleum and Petrochemical Industry standards to ensure facilities are managing their air emissions, and applying the best available technology or best practices when they need to reduce emissions
- Ontario is updating the air standards for industrial emitters of sulphur dioxide. Comments can be made on the Environmental Registry before December 11, 2017

AIR MONITORING WEBSITE

- In partnership with Clean Air Sarnia and Area, a website is soon being launched that will provide the public with air quality information in near real-time

HEALTH STUDY

- The MOECC is committed to funding a health study to understand the impact of air pollution on Sarnia area residents



Interested in learning more? Visit:
www.aamjiwnaang.ca/air-monitoring