

Proposed amendments related to the Lambton Industrial Meteorological Alerts - Ontario Regulation 350.

The Ontario Ministry of the Environment and Climate Change (ministry) regulates contaminants in air to be protective of communities that are close to industrial and commercial sources. The ministry is proposing to amend Ontario Regulation 419/05: Air Pollution - Local Air Quality (O. Reg. 419/05), made under the *Environmental Protection Act*, to introduce updated air standards for sulphur dioxide and to clarify requirements for assessing operating conditions (see EBR 012: 013-0903). As related amendments, the ministry is considering potential proposed amendments to [Ontario Regulation 350: Lambton Industrial Meteorological Alerts \(the “LIMA regulation”\)](#).

The LIMA regulation was introduced in 1981 and includes a community alert system based on monitored values of sulphur dioxide. The monitored values assess aggregate sulphur dioxide concentrations from multiple industrial sources in the Sarnia and Coruna communities. The LIMA SO₂ monitors in Sarnia are located on Front Street, River Bend and LaSalle Line.

1. Question for Consultation:

In light of the proposed amendments to O. Reg. 419/05 to update the SO₂ standards and clarification of operating conditions to be assessed – as well as other work being undertaken by the ministry in the Sarnia Area including a review of monitoring stations, and the introduction in Ontario of an Air Quality Health Index (AQHI) – what role is there for an alert going forward?

The LIMA regulation currently requires the concentration of sulphur dioxide at a point of impingement to be calculated in accordance with the air dispersion models in the [Appendix to Regulation 346](#). Under O. Reg. 419/05, the air dispersion models in the Appendix to Regulation 346 will be phased out by February 1, 2020. If there is a role for the LIMA regulation, then this reference to the models in the Appendix to Regulation 346 would be updated to refer to the U.S. EPA AERMOD dispersion model as referenced in subsection 6(1) paragraph 1 of [O. Reg. 419/05](#).

Subsection 2(1) of the [LIMA regulation](#) states that “The Director shall declare an Alert when the 24-hour running average sulphur dioxide concentration at any monitoring station in the Lambton Industry Meteorological Alert System reaches 0.07 parts per million (ppm) parts of air”. The current levels in the LIMA regulation are based on the existing 1974 sulphur dioxide air standards:

2. Question for Consultation:

If there is a role for the LIMA regulation, should the sulphur dioxide values in the LIMA regulation also be updated? If so, what should these values be updated to?

Options include:

- a. A fraction of the newly proposed air standard (the current LIMA value is 2/3 of the current sulphur dioxide air standard).
- b. Consideration of a regional approach such as the Canadian Ambient Air Quality Standards (CAAQS) announced by the Canadian Council of Ministers of the Environment in October 2016 (which establishes a 2020 target and a more stringent 2025 target for ambient air).
- c. Alternative proposals such as:
 - i. The threshold 24-hour running average of sulphur dioxide concentration at any monitoring station in the Lambton Industry Meteorological Alert System could be changed from 0.07 part per million (or 70 ppb) to 17 parts per billion (ppb) [17 ppb is based on Health Canada's 10 minute Reference Concentration of 67ppb converted to a 24 hour equivalent value].
 - ii. The current LIMA regulation says that during an Alert, the emissions of sulphur dioxide from a "source of contaminant" shall not exceed 415 $\mu\text{g}/\text{m}^3$ at a point of impingement for a half hour average. The half-hour (1/2 hr) value of 415 $\mu\text{g}/\text{m}^3$ could be replaced with a 1-hour value of 86 $\mu\text{g}/\text{m}^3$ [this value is based on 50% of the 2025 CAAQS value of 65ppb or 32.5ppb].

3. Question for Consultation:

If the proposed monitoring levels are updated, what if any additional actions can industry consider to reduce the monitoring levels in the community? What currently required actions should continue to be considered?