

44 Victoria Street
Suite 502
Toronto, ON M5C 1Y2

Tel: (416) 367-3313
Fax: (416) 367-2844
E-mail: admin@opha.on.ca
www.opha.on.ca

President

Ellen Wodchis
E-mail: president@opha.on.ca

Executive Director

Pegeen Walsh
E-mail: pwalsh@opha.on.ca

Constituent Societies

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Health Centres

Association of Public Health
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Association of Supervisors of
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The Ontario Association of Public
Health Nursing Leaders

Charitable Registration

December 11, 2017

Lubna Hussain

Manager, Ministry of the Environment and Climate Change
Environmental Sciences and Standards Division
Standards Development Branch
40 St. Clair Avenue West, Floor 7
Toronto Ontario, M4V 1M2

RE: EBR Posting #013-0903: Regulatory Amendments Related to Air Emissions of Sulphur Dioxide and Other Items

As a non-profit organization committed to promoting and protecting health and wellbeing, the Ontario Public Health Association (OPHA) appreciates the opportunity to comment on the above EBR Posting. We are supportive of updating the Sulphur Dioxide (SO₂) air standards to bring them in line with the existing body of science regarding the health and ecological impacts of exposure to SO₂. We also agree with the Ministry's use of conversion factors to derive the 1 hour standard from the 10-minute Ambient Air Quality Criteria (AAQC) value, rather than directly applying the 10 minute AAQC as the updated air standard. Public Health views this method to be protective of adverse effects in sensitive populations. Given that adverse effects occur from short-term exposure to SO₂, OPHA does not feel that the direct application of the 10 minute AAQC as the proposed one-hour standard would adequately protect sensitive populations.

The Ministry has proposed applying the updated standards on a regional basis. In this situation, the updated standards would apply only to southern Ontario, while the current standards would apply to northern Ontario.

The Ontario Public Health Association strongly opposes the creation of a 2-tiered air standard for SO₂ for the following reasons:

- The current SO₂ air standards are out of date and do not reflect the existing body of science regarding the health and environmental impacts of exposure to SO₂. Toxicological information has been published since the standard was originally developed in 1974 which supports the need for the update.
- The health impacts of exposure to SO₂ are clear. As noted in the Science Discussion Document on the Development of Air Standards for Sulphur Dioxide (SO₂), short-term exposure to SO₂ is associated with respiratory effects, including bronchoconstriction, changes in lung function, airway inflammation, airway hyper-responsiveness and emergency room visits. The creation of a 2-tiered air standard will provide inadequate health protection for the residents of northern Ontario. From a health equity perspective, the residents of northern Ontario deserve the same level of protection as those who live in southern Ontario. In the Ministry's own words, it focused "on data that will allow for protection to all individuals in the general public, including those who are likely to be susceptible to developing a critical effect". Asthmatics are one group who are likely to be at risk from adverse health effects from SO₂. Asthma

is the third-most common chronic disease in Canada and its prevalence is increasing. It is the leading cause of missed school days for children. Ontarians have a 40% risk of developing asthma before they reach 40 years of age (1).

- SO₂ emissions are a major precursor to the formation of PM_{2.5}. PM_{2.5} in air pollution is one of the top 3 environmental carcinogens in Ontario, and is responsible for 290 to 900 for cancer cases in Ontario each year (2). In addition to reducing SO₂ in air, the updated standard will result in a reduction in PM_{2.5}. These reductions will improve the health of Ontarians.
- O. Reg 419/05 provides mechanisms for facilities and industries who cannot meet the updated standard, including site-specific and technical standards. Given that these mechanisms exist, it does not appear that there is a justification for the 2-tiered standard being proposed by the MOECC.

The science regarding the health effects of SO₂ is clear and supports the need for an updated air standard in both southern and northern Ontario. The health of northern Ontario residents deserves the same level of protection as those who live in southern Ontario.

The Ontario Public Health Association would be happy to meet with the Ministry to discuss this proposal.

Sincerely,



Pegeen Walsh
Executive Director
Ontario Public Health Association

About OPHA

OPHA has established a strong record of success as the voice of Public Health in Ontario. We are a member-based, not-for-profit association that has been advancing the public health agenda since 1949. OPHA provides leadership on issues affecting the public's health and strengthens the impact of those who are active in public and community health throughout Ontario. OPHA does this through a variety of means including advocacy, capacity building, research and knowledge exchange. Our membership represents many disciplines from across multiple sectors.

(1) To, T., Gershon, A., Tassoudjo, M., Guan, J., Wang, C., Estrabillo, E., Cicutto, L. The Burden of Asthma in Ontario. ICES Investigative Report. Toronto: Institute for Clinical Evaluative Sciences; 2006.

(2) Cancer Care Ontario, Ontario Agency for Health Protection and Promotion (Public Health Ontario). Environmental Burden of Cancer in Ontario. Toronto: Queen's Printer for Ontario; 2016.