ONTARIO SOCIETY OF PROFESSIONAL ENGINEERS

July 27, 2023

Water and Air Quality Bureau
Safe Environments Directorate
Healthy Environments and Consumer Safety Branch
Health Canada

Subject: Request for Regulation of Air Cleaning Equipment in Accordance with ASHRAE 241 Normative Appendix A

To whom it may concern,

The Ontario Society of Professional Engineers (OSPE) is an organization committed to promoting excellence in engineering and safeguarding the well-being of our communities. As part of our core recommendations for safer indoor air, we are concerned about the lack of regulation surrounding certain air cleaning equipment. We believe it is essential to address this issue promptly, as it directly impacts the health and safety of Canadians.

As you are well aware, the COVID-19 pandemic has heightened the importance of maintaining clean and healthy indoor air to mitigate the transmission of airborne diseases. While proven outdoor air ventilation and filtration methods have been widely implemented, there has been a surge in the use of alternative air cleaning technologies, such as ionization, photocatalytic oxidation, hydroxyl generators and gaseous hydrogen peroxide.[1, 2, 3] However, some of these methods have shown potential risks, including the generation of harmful compounds like ozone, formaldehyde, and hydroxyl generator created particulate matter.[1, 3, 4, 5, 6, 7, 8] Many of these technologies have also been shown to be ineffective at reducing the concentration of infectious aerosols in a real world environment.[9]

We recognize the need for innovative approaches to improve indoor air quality; however, it is crucial to ensure that such technologies adhere to the highest standards of safety and effectiveness. Recently, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) released Standard 241, Control of Infectious Aerosols, which includes a Normative Appendix A outlining a comprehensive method for testing the safety and effectiveness of air cleaning equipment.[10] Unlike some existing standards, this appendix takes into account the generation of harmful compounds beyond ozone, providing a more comprehensive evaluation.

Furthermore, ASHRAE 241 Normative Appendix A introduces a method for measuring the equivalent clean air delivery rate, allowing consumers to accurately assess the effectiveness of air cleaning equipment. We believe that this information should be made available as a reporting requirement for all manufacturers and suppliers of air cleaning technologies excluding those using only mechanical fibrous filters.

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As a result, the Ontario Society of Professional Engineers strongly urges Health Canada to consider the following requests:

1. **Regulate all air cleaning equipment that falls under the following criteria:**

    a. Devices that introduce an active agent to react on surfaces or in the gas phase.

    b. Devices that introduce energy capable of changing the charge on molecules or altering air composition, whether independently or with the aid of a catalyst.

2. **Mandate compliance with ASHRAE 241 Normative Appendix A for all such air cleaning equipment sold in Canada including reporting and safety testing requirements.**

We firmly believe that regulating these technologies in line with ASHRAE 241 Normative Appendix A will help ensure the safety and effectiveness of air cleaning devices and protect the health of Canadian citizens.

Thank you for your attention to this matter. We appreciate Health Canada's commitment to the health and well-being of all Canadians and look forward to working together to enhance indoor air quality standards.

Should you require any further information or have any questions, please do not hesitate to contact Paola Cetares, Manger of Public Affairs (pcetares@ospe.on.ca) or Stefanie Black, Government Relations Coordinator (sblack@ospe.on.ca).

Sincerely,

Sandro Perruzza
Chief Executive Officer
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[10] American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). Control of Infectious Aerosols. Standard 241 – 2023 (*including Normative Appendix A*), 2023.