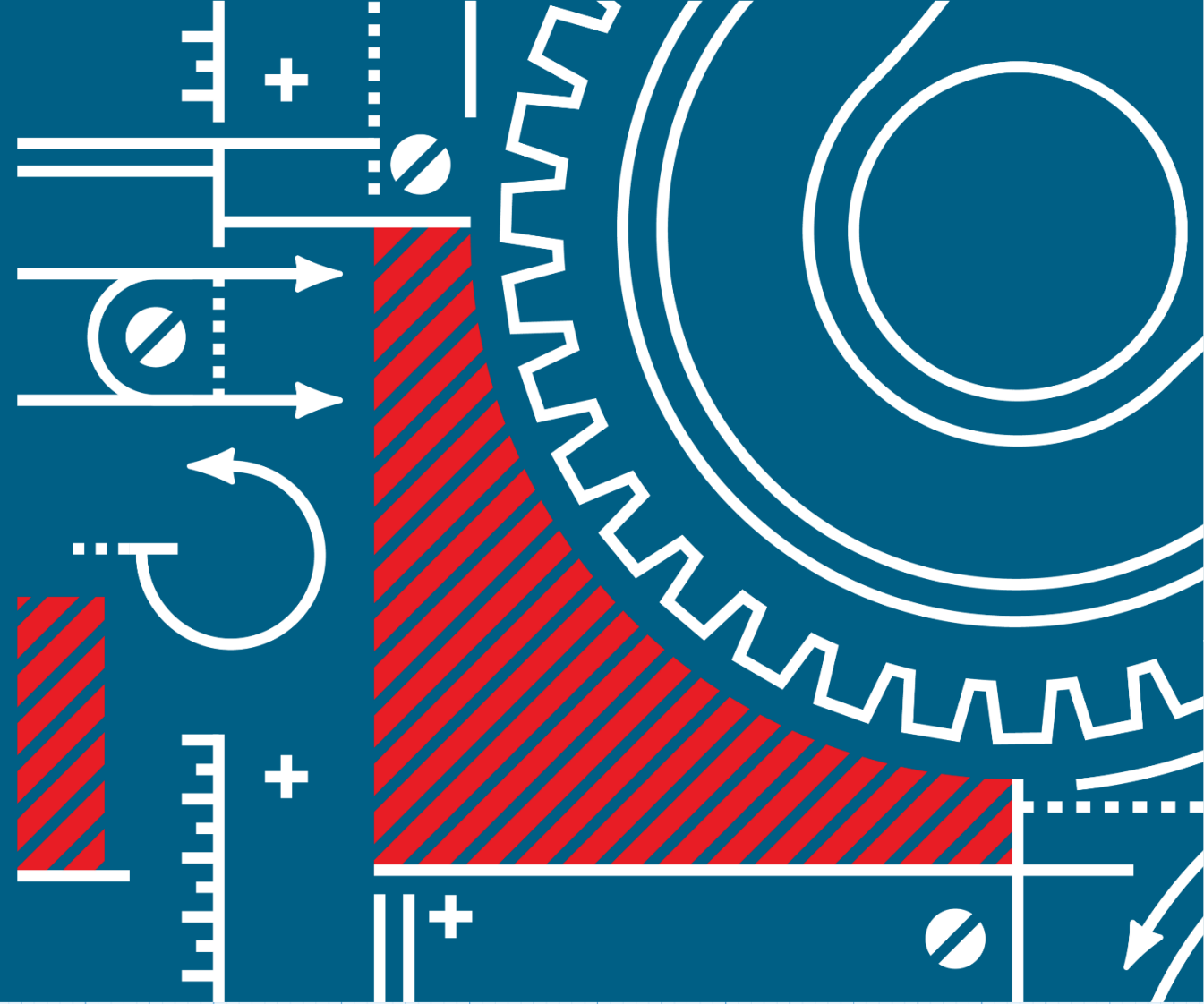


HRAI 2022 Conference

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Who is OSPE

The Ontario Society of Professional Engineers (OSPE) is the voice of the engineering profession in Ontario.

We represent the entire engineering community, including professional engineers, engineering graduates and students who work or will work in several of the most strategic sectors of Ontario's economy.

OSPE is a member-driven professional association that welcomes the entire engineering community, to contribute knowledge, skills, and leadership.

Vision: OSPE is the home of the entire engineering community in Ontario, where engineers come together to realize their full potential.

Mission: OSPE engages, educates, and enables the engineering community to lead in order to help create a better future for our profession and society at large.

Why Assemble the Indoor Air Quality Advisory Group

Engineers have a sworn duty to protect the public interest, and there were many non-engineers and non-HVAC specialists making recommendations around Indoor Air Quality and the types of improvements that need to be made (or not be made) by building owners.

City of Toronto Councillor asked Public Health Officials to establish guidelines for “safe Indoor Air Quality Guidelines” for Toronto business owners.

Much misinformation and confusion around the best interventions to improve indoor air quality, appropriate type of masks, droplet vs. airborne transmission of covid, and ASHRAE standards.

OSPE members requested that the association assemble a group of experts to provide science-based evidence to establish some recommended best practices and clear direction for building owners, practitioners, parents, and government.

Provide reference documents to direct OSPE advocacy.

Who is part of the OSPE IAQ Advisory Group

OSPE assembled a multi-disciplinary team of experts, including:

- Professional Engineer Practitioners
- Professional Engineer Researchers
- Aerosol Scientists
- HVAC Specialists
- Air Balancers
- Public Health Doctors
- Occupational Hygienists
- Safety Professionals
- Writers (To translate Technical to plain English)

We also included representatives from or connected to:

- ASHRAE
- HRAI
- Public Health Schools
- Engineering Schools
- Hospitals

Why Develop These Documents When ASHRAE Standards Already Exist?

Currently In Ontario, there is no legal or regulatory requirement for Professional Engineers to take mandatory continuing education as part of their licencing requirements.

Many engineers are not fully aware or up to date with the current ASHRAE standards for IAQ, or the recommendations for dealing with an airborne infectious agents (SARS-CoV-2)

Confusion around whether it is even Airborne

Dual Purpose:

1. Educate Ontario (and Canada) Engineers and other Practitioners on Best Practices and reference the ASHRAE Standards and other ASHRAE documents.
2. Educate and Inform the Public and Building Owners/Operators on the need for IAQ improvements to protect their workers, customers and occupants.

For this reason, documents are written in as much a non-technical way as possible, so the average lay person can understand & then hire a HVAC specialist to make improvements.

Outcomes of the IAQ Advisory Group

Three Key Documents:

1. How COVID is transmitted through the Air
 - Yes, COVID-19 is Airborne!!
2. Appropriate Use of Masks and What types of Masks are best for Various Situations
 - N95 or better respirators are recommended for most settings.
3. IAQ Key Recommendations to Deal with #1 above
 - 6 Key Recommendations have come forward

IAQ Key Recommendations

1. Airborne Disease Mitigation Strategies

- Including strive for 6 ACH, Avoid Plexiglass barriers, When to use Upper Room UV, Space Flushing, Demand Control Ventilation

2. Ventilation Recommendations

- Which Standards to Use, Suggested Ventilation Improvements, Things to Avoid

3. Filtration Recommendations

- Recommended Filters, Stand-alone HEPA Units & The Use of DIY Corsi-Rosenthal Boxes

4. Ultraviolet Light Germicidal Irradiation Recommendations

- Recommendations on When these Systems should be used

5. Additive Air Cleaning and Alternative Methods Recommendations

- Recommendations on When and If these Systems should be used

6. Transparency and Public Education

- What information should facilities share with occupants, CO2 monitors, Public Information Campaigns, etc.

What's Next (On-Going)

1. Government Focused Advocacy Campaign

- Focus on Key Ministries at the Provincial/Federal Level to share our recommendations for adoption into Provincial/Federally mandated workplaces (i.e., School, Medical, LTC, Public Transportation Hubs, Building Code Adoptions, etc.)

2. Media Focused Education Campaign

- Inform Media Outlets of these documents and general recommendations, including the use of qualified HVAC specialists to ensure systems are working correctly and/or property adjusted/modified to meet these recommendations.

3. Education Campaign for other Associated Entities

- Advisory Group Members will disseminate these documents for discussion and adoption into their networks, including public health schools, H&S Associations, Engineering Regulators, etc.

THANK YOU!