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## ***JANUARY TECHNICAL MEETING***

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# **IAQ AND COGNITIVE FUNCTIONING IN HEALTHY BUILDINGS**

**SPEAKER: BRIAN MONK**

We welcome you to join us for our January technical meeting. Check in with our chapter and learn about IAQ and Cognitive Functioning in Healthy Buildings. This presentation will focus on the application of enhanced particle, gas-phase and biological filtration for compliance with Standard 62.1 and recently published information on airborne pathogens.

**Date:** Wednesday – January 13, 2021

**Time:** 12:00 PM – 2:00 PM

**Location:** Virtual

**Cost:** \$10

**RSVP:** <https://sanjoseashrae.wildapricot.org>

## Speaker:

### **BRIAN MONK**

P.ENG., ASHRAE DL



Brian Monk is General Manager, responsible for Carrier Custom Air Handling Solutions, specializing in design of air treatment systems, including airborne contaminant control and dedicated outdoor air systems with energy recovery.

Mr. Monk is also an instructor for Carrier University's Sustainability Symposiums under the International Association for Continuing Education and Training (IACET) program which provides CEU Credit for Professional Engineering Licensure.

His academic background comprises of a college degree in Applied Science (Building Systems Engineering Technology) from Vanier College of Montreal and a Bachelor of Building Engineering from Concordia University of Montreal. He is a Registered Professional Engineer with the Province of Quebec, Canada.

Mr. Monk is an ASHRAE Distinguished Lecturer, and Part-Time Professor in the Faculty of Building Engineering at Vanier College. He is also a member of the IAQA (Indoor Air Quality Association) and a member of Carrier's Healthy Building Center of Excellence.

## Presentation Summary

### *IAQ and Cognitive Functioning in Healthy Buildings*

GBCI Approved | 1.5 CE Hour | 0920017341    AIA Approved | 1.5 LU/HSW | MONK 04  
Classification: Intermediate

Achieving balance among desired goals for indoor air quality (IAQ), energy consumption, and occupant comfort within the built environment is challenging. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) endeavors to achieve this through guidelines and standards focused on advancing building science as it relates to environmental quality. This presentation will review the commonly used design guides found in ANSI/ASHRAE Standard 62.1, "Ventilation for Acceptable Indoor Air Quality."

The current form of ANSI/ASHRAE Standard 62.1 employs two mechanical ventilation procedures to provide acceptable IAQ in buildings: The Ventilation Rate Procedure and the Indoor Air Quality (IAQ) Procedure. While the Ventilation Rate Procedure provides only a dilution solution for the control of typical offending contaminants for a specified occupancy, the IAQ Procedure provides a directed approach by reducing and controlling the concentrations of selected air contaminants of concern through both dilution and enhanced air cleaning.

Rather than relying only on diluting the concentration of contaminants with outdoor air, designing with enhanced filtration of both recirculated and ventilation outdoor air can improve IAQ, reduce airborne infectious disease and enhance cognitive functioning within the occupied space. This presentation will focus on the application of enhanced particle, gas-phase and biological filtration for compliance with Standard 62.1 and recently published information on airborne pathogens. An outline of the design aspects to consider will be reviewed, with the focus on achieving acceptable levels of contaminants of concern within the occupied space while considering the desire to meet healthy building standards and improved cognitive functioning.