

# HVAC SYSTEM EVALUATION



An alarming message was sent in an open letter to the World Health Organization (WHO) from 239 international scientists. They said: "We are concerned that the lack of recognition of the risk of airborne transmission of COVID-19 and the lack of clear recommendations on the control measures against the airborne virus will have significant consequences."

Before Covid-19, Indoor Air Quality (IAQ) was largely considered a specialized need reserved for buildings with suspected air quality issues. Now IAQ is front and center on people's minds. Airborne viruses are carried in bioaerosols, (small air particles <5 microns in size) transferred in airstreams through a building's HVAC system.

HVAC systems serving densely populated areas can carry and distribute viruses through bioaerosols. Many HVAC systems have inadequate air filtration using standard filters of MERV 6-8; this coupled with insufficient ventilation rates leads to poor IAQ.

Evaluating existing HVAC systems is the first step towards making actionable recommendations to provide the highest degree of IAQ and safety. EBCx Services recommendations focus on providing the greatest benefit at the lowest possible cost. Evaluation also determines if future equipment upgrades should be considered.





- Evaluate existing air conditioning systems and optimize performance based on available equipment capacity and Current Facility Requirements (CFR)
- Establish a baseline of equipment performance so existing cooling/heating and fan capacities are not overloaded...testing determines how much additional load can be placed on existing equipment
- Ventilation – test zone level CO<sub>2</sub>, temp and rh to determine if increasing outdoor air is required...use data loggers to establish ventilation effectiveness and profiles over time
- Filtration – test air particle size and count to establish filter effectiveness...increase air filter effectiveness to capture small air particles that carry and distribute viruses
- Disinfection – clean air through technologies such as Ultraviolet Germicidal Irradiation (UVGI) and Needlepoint Bipolar Ionization
- Control sequences – determine what changes to existing control sequences will improve IAQ and overall system performance
- Recommendations (including maintenance measures) are based on the CFR, submittal data of existing equipment and actual field testing and analysis of all data

### ➤ Why EBCx Services

- Over 40 years of experience optimizing the built environment
- Certified Indoor Air Quality Professional (CIAQP)
- NEBB Certified Firm in Testing, Adjusting and Balancing (TAB), RCx & Cx
- Large inventory of calibrated instrumentation as required by NEBB
- FL Certified Class-A Air Conditioning Contractor since 1981

EBCx Services, LLC  
Scott Gordon  
2609 N. Forest Ridge Blvd #280  
Hernando, FL 34442  
[www.ebcxservices.com](http://www.ebcxservices.com)  
scott@ebcxservices.com  
423.737.5085 / 352.327.9385