7/20/2020

Quakertown Community School District 100 Commerce Drive Quakertown, PA

Attn: Robert Christine

Re: Safe Indoor Environments

Rob,

As you know, the global Covid-19 pandemic has introduced a new set of challenges for large buildings such as your schools. Existing regulations, new regulations and the seemingly daily issuance of "new guidance" from federal, state and local agencies leave many building operators unsure of which steps to take to ensure a safe environment for occupants. School districts are especially challenged due to the diverse nature of the occupants and activities in any given facility. Over the course of a single day, a typical school building may be used by young children, adolescents, older teens, staff and citizens from the general community.

The question becomes "have we done everything within reason to protect our students, staff, parents and community?"

Some solutions getting a lot of press include:

Increased Ventilation: Eccotrol has been working with the Quakertown School District for many years. Our systems provide control of the HVAC systems in virtually every building. We work with the design engineers to create systems that deliver safe indoor environments with proper ventilation as per the best industry practices. These systems have been well maintained by the school district. In fact, since the beginning of the pandemic, Eccotrol has worked with the school district to verify that the components and sequences of the ventilation system are all operating correctly.

In general, the HVAC systems operate to provide a predetermined amount of ventilation, measured in cubic feet of air per minute (CFM). On many of the larger air handling units, this amount can be easily adjusted through the control system. Lately there has been some information online about running the HVAC system AND keeping the windows open at the same time. Your buildings were not designed to run in this manner and Eccotrol strongly disagrees with this scheme as moisture infiltration, uncontrollable humidity and mold are likely outcomes. If the district receives guidance



to maximize fresh air intake, the outside air dampers can be adjusted easily through the building automation system.

Air Filtration: Every piece of HVAC equipment in the school district already has air filters installed. The district is going to continue to exercise quarterly filter changes. This is the very basic "blocking-and-tackling" that is proven effective to ensure safe indoor air quality. The school district should use the best quality filter specified by the unit manufacturer. Be careful not to use a class of filter beyond the manufacturer's recommendations as use of such a filter could cause excessive restriction of air and reduce the quantity of fresh air being delivered to the space.

UV Light Purification: Another technology being publicized around the Coronavirus is UV light purification. When properly engineered and installed, UV light technology has been proven effective at killing bacteria and viruses in air ducts. While this technology is viable in larger air handling units, the vast majority of the square footage in the school district is served by unit ventilators, fan coil units and heat pumps. Although UV purification devices are available on the market for unit ventilators, we as a company have not seen credible evidence that these devices are effective at reducing virus transmission.

As a longstanding partner with the Quakertown School District, Eccotrol is committed to working with you to ensure the safety of your community. As we receive more information regarding best practices to minimize virus spread, we will be sure to share it with you. In the meantime, feel free to contact me with any questions you may have.

Sincerely,

ECCOTROL, LLC

Pasquale "Pat" Onofrio

President