STEPHEN TURNER INC.
Building Better Performance

NO-COST TECHNICAL SUPPORT FOR COVID-19 INDOOR AIR QUALITY CONCERNS

Summary Points:

- Indoor air quality improvements in existing institutional and commercial buildings may help reduce the risk of COVID-19 transmission
- Possible ventilation improvement measures are HEPA or upgraded filters in air handlers, increased ventilation rates in air handlers, demand-controlled ventilation adjustments, opening windows, and thoughtful allocation of space use relative to existing ventilation systems and provisions
- The building systems experts at Stephen Turner Inc. are available for no-cost consultations with commercial building owners to help explore possible improvements to the ventilation systems in their buildings

Stephen Turner Inc. is committed to providing our relevant technical expertise during the COVID-19 novel coronavirus crisis. We stand ready to help the community with our technical knowledge of approaches to improving indoor air quality upon request, regardless of ability to pay. Our expertise is in medium to large size institutional, research, educational, commercial, and multi-family buildings, complexes, and campuses.

Many commercial building spaces have been fully or largely vacated until the COVID-19 infection rates are under control in the United States. Many buildings, especially critical public facilities, are still in operation. Indoor Air Quality (IAQ) is or will be of concern in every building space whether currently in use or not. Whether for immediate need or as building spaces are reoccupied, our buildings' ventilation systems require prudent consideration of upgraded systems and related operating policies. Our experienced technical team's extensive technical and building operating insights are available to building owners, operators and managers regardless of their organization's ability to pay.

The potential for building systems and operations to inhibit the airborne spread of COVID-19 warrant a more aggressive approach to IAQ than business-as-usual. The Occupational Safety and Health Administration's (OSHA) *Guidance on Preparing Workplaces for COVID-19* advises that engineering controls are the most effective protection measure against the COVID-19 hazard. Specifically, OSHA advises **installing higher-efficiency air filters** and **increasing mechanical ventilation rates**. Additional control measures may be available, such as **opening windows** to further increase the ventilation rate or **adjusting demand-controlled ventilation controls** to reach to lower carbon dioxide levels so that increased ventilation rates automatically occur whenever someone enters a space. Furthermore, our experience in operations includes high containment research and healthcare settings, where **thoughtful arrangement of higher risk spaces** relative to existing ventilation provisions can simply and at low or no cost improve risk management in buildings.

Design ventilation rates are typically selected based on local building or mechanical codes, as well as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62 *Ventilation for Acceptable Indoor Air Quality*, which is the industry standard for ventilation system design and acceptable IAQ. However, both prudence and OSHA guidance indicate that increasing ventilation rates is appropriate during the COVID-19 virus outbreak. Higher ventilation rates may be warranted until infection rates are low again; research is ongoing on this topic.

Stephen Turner Inc. is available for no-cost consultations with commercial and public building owners to help explore any technical questions that they may have about their facilities, their ventilation systems, and operations and maintenance approaches to best provide a healthy environment.

Please call us at 401-273-1935 or email info@sturnerinc.com to explore the possibilities for reducing COVID-19 transmission risk at your facility.

As a building commissioning practice headquartered in Rhode Island with operations there and in Massachusetts, Connecticut, and Florida, our team has extensive experience helping owners plan and implement upgrades to existing facilities and systems. As a triple bottom line company with a commitment to community and the environment, we offer this COVID-19 assistance regardless of ability to pay to those who are trying to keep critical and occupied facilities through this crisis, and who are assessing appropriate engineered responses and options in all buildings whether currently in use or not. Our typical area of operations is largely Southern New England, but we have extensive experience on large projects throughout the world. Our team is engaged in developing codes, national standards, and international standards for the built environment. Clients include leading universities and colleges, cities, schools and school districts, and other owners of significant large institutional and commercial buildings.