

# IMPLEMENTATION OF HVAC CONTROLS FOR COVID-19



The health and safety of members of the College Community is the top priority of GPRC. Therefore, to further enhance the protection measures in place to ensure that indoor air quality standards are met, GPRC is utilizing recommendations by ASHRAE to guide the control of its HVAC systems. ASHRAE is a global society, where its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the built environment. An engineering consultant has also been engaged to review existing infrastructure and assist with the implementation of HVAC control measures on our campuses.

A significant number of non-HVAC based measures for preventing virus dissemination have been implemented at GPRC, as part of the robust health and safety strategy. These measures include but are not limited to, preventing those with physical symptoms or those that may have been exposed to others that are ill from entering our facilities; implementing a work from home strategy; encouraging physical distancing; installing physical barriers at high traffic locations; increasing frequency of surface cleaning and disinfection; wearing a mask; encouraging good hand hygiene and practicing respiratory etiquette. These measures and others are in-effect at GPRC to protect members of the college community.

ASHRAE recommendations for operating non-healthcare building HVAC systems during the COVID-19 pandemic focus on four areas as per below. These recommendations have been implemented where feasible or pertinent to a specific building or system:

- Dilute: Increase ventilation with outdoor air;
- Exhaust: Keep local exhaust running;
- Contain: Monitor and control indoor air humidity; and,
- Clean: Safely use air-cleaning technology, as appropriate.

## **Dilute**

GPRC is maintaining high outdoor airflow to improve dilution within its buildings. HVAC controls have been adjusted to maximize ventilation wherever possible, without sacrificing acceptable temperature control in the building. Ventilation systems within our facilities are operating for a longer period of time during the day. In addition, pre- and post-occupancy purge sequences have been implemented to flush buildings with outdoor air.

## **Exhaust**

In addition to general exhaust measures, public restroom exhaust fans have been set to operate continuously in an effort to remove potential contaminants at their source.

## **Contain**

GPRC buildings do not contain humidity control systems aside from L106 in the Cardinal building. The College is exploring the logistics and cost-benefit of adding humidity control to its existing building infrastructure where feasible.

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## Clean

Upgrades to MERV-13 filters are ongoing in our air handling units to reduce the airborne load of infectious particles from the air.

## Summary

HVAC systems and associated control sequences should not be considered a significant mitigation method against COVID-19. Recommended adjustments to HVAC controls that have been implemented are intended to compliment primary protection actions such as health screening, physical barriers, surface cleaning and disinfection, etc. Based upon review of our HVAC systems and implementation of controls aforementioned, we do not believe that ventilation is, or will, be an exacerbating issue in controlling COVID-19 at GPRC.