GUIDANCE FOR POLLING PLACE HVAC SYSTEMS

ASHRAE is a global professional society of over 55,000 members committed to serve humanity by advancing the arts and sciences of heating ventilation, air conditioning, refrigeration and their allied fields. ASHRAE has established a Task Force to help deploy technical resources to address the challenges of the COVID-19 pandemic and possible future epidemics as they relate to the effects of heating, ventilation, and air-conditioning systems on disease transmission. Guidance and building readiness information for different operating conditions has been developed for several building types, including commercial, residential, educational, and healthcare facilities.

Protecting our voters and poll workers from COVID-19 infection at polling places is essential to protecting the health, welfare, and safety of the entire population. ASHRAE's Building Readiness guidance provides practical information and checklists to help minimize the chance of spreading SARS-CoV-2, the virus that causes COVID-19. A summary of key general recommendations related to HVAC and water supply systems appears below. Many different HVAC system types are used in polling places, so adaptation of these guidelines to specific cases is necessary. ***Please consult the full guidance for important details and consider reaching out to qualified design professionals for detailed analysis as needed.***

- Personal Protection: Follow CDC guidelines for wearing face masks, social distancing, and hygiene – including the cleaning of voting machines between visits by voters. The CDC's "Considerations for Election Polling Locations and Voters" provides guidance on a broad range of topics, whereas ASHRAE's guidance focuses on HVAC and water systems.

- Space selection: select a space with larger area for people to spread out, and if possible, a high ceiling to provide more volume for dilution. Consider space with operable windows if there are potential ventilation issues.

- Limit the number of people in the polling place by social distancing (50 sq. ft. per person or lower density is preferred).

- Administrative Practices:
    - Limit the time that a voter spends in the space
    - Minimize talking and speaking loudly inside the space
    - Waiting lines should be outside the building
    - Cleaning of the space should be done after hours according to CDC guidelines

- Inspection and Maintenance: Consider assessing the condition of systems and making necessary repairs. All building owners and service professionals should follow ASHRAE Standard 180-2018 "Standard Practice for the Inspection and Maintenance of Commercial HVAC Systems."

- HVAC operation: The HVAC and toilet exhaust systems should be running when the space is occupied. If the HVAC system cycles on/off with the thermostat, consider running the fan constantly during occupied hours. If toilet exhaust is controlled by manual switches, leave the fan running for 20 minutes after use, or consider setting the switch to "on" and use signage that directs not to change the setting.
- Ventilation: A good supply of outside air, in accordance with ASHRAE Standard 62.1-2019, to dilute indoor contaminants is a first line of defense against aerosol transmission of SARS-CoV-2. Pre- and post-occupancy purge cycles are recommended to flush the building with clean air.
- If the polling place is not ventilated or poorly ventilated and filter efficiency is not good, consider opening doors and windows, and consider re-locating all voting to the outdoors.
- Air Distribution: Air flow distribution should not cascade air from the face of a person onto others, so take care in using personal fans.
- Filtration: Use of at least MERV-13 rated filters is recommended if it does not adversely impact system operation. If MERV-13 filters cannot be used, including when there is no mechanical ventilation of a space, portable HEPA air cleaners in occupied spaces may be considered. Also consider portable air cleaners in locations with more vulnerable staff.
- Air Cleaning: Air cleaners such as germicidal ultraviolet air disinfection may also be considered to supplement ventilation and filtration. Technologies and specific equipment should be evaluated to ensure they will effectively clean indoor air without generating additional contaminants or negatively impacting space air distribution by creating strong air currents.
- Temperature and Humidity: It is desirable to set the thermostat at the higher end of the comfort zone, 75-78ºF and maintain relative humidity between 40-60%.
- Energy Use Considerations: In selecting mitigation strategies, consideration should be given to energy use as there may be multiple ways to achieve performance goals that have greatly different energy use impact. Control changes and use of energy recovery to limit or offset the effect of changes in outdoor air ventilation rate and filter efficiency may reduce or offset energy and operating cost penalties.
- Water System Precautions: Buildings that have been unoccupied could have stagnant water, and water systems should be flushed to remove potential contaminants. Utilizing ASHRAE Standard 188 and Guideline 12 can help minimize the risk of water-borne pathogens such as legionella.

HVAC&R systems play an important role in minimizing the spread of harmful pathogens, and ASHRAE is ready to provide technical resources and answer questions.

The most up-to-date information for can be found here.
The most up to date information for Building Readiness for re-opening can be found here.
For further assistance, please contact GovAffairs@ashrae.org.

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