EPA
United States
Environmental Protection
Agency

Recommendations for Reducing Wildfire Smoke in Commercial Buildings and Schools

When a community is impacted by a wildfire, reducing smoke infiltration into buildings is important to protecting public health. Smoke can enter buildings through a variety of ways, including a building's heating, ventilation and air conditioning (HVAC) system.

Recommendations to help building owners prepare their HVAC systems for wildfire smoke are available in the *Planning Framework for Protecting Commercial Building Occupants from Smoke During Wildfire Events.*

This interim guidance document is offered by ASHRAE, (formerly the American Society of Heating, Refrigerating and Air Conditioning Engineers) and is available to the public free of charge. The document was developed by ASHRAE's Guideline Project Committee (GPC) 44P, which includes representatives from EPA, the National Institute of Standards and Technology (NIST), other federal and international organizations and industry. The committee is developing a full guideline for planned release in 2022.

For more information and to access the document, visit: *www.epa.gov/indoor-air-quality-iaq/wildfires-and-indoor-air-quality-schools-and-commercial-buildings*

Ten Elements of a Smoke Readiness Plan

The Planning Framework recommends a written, building-specific Smoke Readiness Plan that includes:

1. Purchase smoke preparation supplies such as portable air cleaners and extra filters.
2. Evaluate the ability of the HVAC System to handle a higher efficiency filter, like MERV 13 or higher.
3. Conduct a full maintenance check on the HVAC system and make repairs if needed.
4. Assess and maintain adequate air flows to protect occupant health and equipment during smoke events.
5. Prepare to add supplemental filtration at the intake air vent where possible.
6. Assess filter conditions by adding a port or pressure gauge to measure the filter pressure drop on at least one air-handling unit.
7. Weatherize the building to limit smoke intrusion. Consider measures such as limiting allowable entrances to reduce smoke entry.
8. Prepare to monitor indoor fine particulate matter ($PM_{2.5}$) by purchasing one or more low-cost air sensors designed to measure the pollutant. These low-cost sensors can show trends in $PM_{2.5}$ levels.
9. Determine how to create temporary cleaner air spaces within the building.
10. Reduce sources of indoor $PM_{2.5}$ such as cooking, vacuum cleaning, use of printers or copiers and smoking.