

Wildfire Smoke & Employee Health



Employers should be aware that wildfire smoke may adversely affect the health of their workforce and prepare to take action to limit their workers' exposures when wildfire smoke is impacting a work environment.

Check PM2.5

Today's Air

Check PM2.5 levels at todaysair.mtdeq.us or by using a well-placed ambient air quality monitor designed for public use.

Communication

Implement a system for communicating about the health risks of wildfire smoke exposure in a manner understandable by all employees. Create a supportive environment for employees to express health concerns.

Reduce Exposure

Implement engineering controls, when feasible, to reduce employee exposure to PM2.5. Examples include providing enclosed structures or vehicles for employees to work in or take a break in where the air is filtered.

Implement changes to work procedures or schedules when practical. Examples include changing work schedules or the location where employees work, reducing levels of strenuous physical activity, and taking frequent breaks when air quality is poor.

Respirators

Consider supplying N95/P100 masks or respirators for employee use on a voluntary basis when ambient PM2.5 levels are elevated due to wildfires and other comprehensive environmental controls have been implemented. Information on the voluntary use of respirators is available on the [OSHA website](https://www.osha-slc.gov). If respirator use is required, the employer must institute a comprehensive [respiratory protection program](#).

Hydration

Wildfire smoke can contribute to the effects of heat stress. Provide cool drinking water on the work site and encourage frequent rest breaks on hot days. Remind your workers to drink a glass of water at least every 15 to 20 minutes even if they aren't feeling thirsty.

For more information on how to protect your health during poor air quality conditions, visit dphhs.mt.gov/airquality.



Commercial Building Smoke Readiness Plan



As designers, building operators, and citizens, we need to protect ourselves from the harmful effects of wildfire smoke, which is becoming a more frequent and imposing issue. There are solutions available, but they need to be custom designed to each facility.

10 Elements of a Smoke Readiness Plan

- 1 Purchase smoke preparation supplies such as portable air cleaners and extra filters.
- 2 Consult an HVAC professional before the wildfire season to evaluate whether the system can accommodate a higher efficiency filter, like MERV 13 or higher.
- 3 Conduct a full annual maintenance check of the HVAC system and make repairs if needed.
- 4 Assess and maintain adequate air flows to protect occupant health during smoke events. Operate HVAC systems in re-circulate mode or temporarily reduce the amount of outdoor air supplied to the building.
- 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 (e.g., keeping loading dock and bay doors closed when not in actively in use).
- 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.

[ASHRAE Planning Framework for Protecting Commercial Building Occupants from Smoke During Wildfire Events](#)

