

WORKER PROTECTION FROM WILDFIRE SMOKE

Emergency Cal/OSHA Standard 2019

California's recent wildfire seasons have confirmed fears of worsening fire conditions that have become a year-round threat. Increasingly, workers in the path of wildfire smoke have been the focus of concern given the health impacts of exposure. In December 2018, worker advocates in the state urged the California Division of Occupational Safety and Health (Cal/OSHA) to take measures to address this growing worker health threat.

The Cal/OSHA Standards Board voted to adopt an emergency temporary standard to protect workers from exposure to wildfire smoke. The temporary standard went into effect on July 29, 2019 and will remain effective for up to one year. Cal/OSHA is now developing a permanent standard.



Photo: CAUSE (Central Coast Alliance United for a Sustainable Economy) @CAUSE805

HOW DOES WILDFIRE SMOKE AFFECT HEALTH?

Wildfire smoke includes ash and tiny particles that can travel through the air over long distances. These particles are made up of whatever is being burned – not only plants and vegetation, but also remnants of residential or commercial structures, vehicles, industrial or household chemicals, and other unknown materials. Many of these particles are invisible to the naked eye.

Individuals may experience health symptoms if they breathe in these smoke particles. These symptoms can include:

- Irritation of the eyes, nose, and throat
- Difficulty breathing
- Asthma attacks
- Chest pain
- Persistent cough, phlegm, and wheezing

Particulate matter can also cause more serious longer term health problems, such as reduced lung function, chronic bronchitis, worsening of asthma, heart failure, and early death.

Adults over 65 years of age, children, and individuals with pre-existing health conditions are at higher risk for smoke-related health problems.

DEFINITIONS:

AQI: Air Quality Index. An index that indicates air pollution and associated health concerns

- Real-time AQI for any location in the U.S is available at: www.airnow.gov

PM2.5: Particles (or “particulate matter”) with a diameter of [2.5 micrometers](#) or less - about 3% the thickness of a strand of human hair. The small size of PM2.5 particles allows them to reach deep into the lungs and even enter the bloodstream.

WHEN ARE EMPLOYERS REQUIRED TO ACT?

The emergency standard is triggered when the AQI (air quality index) for PM2.5 at the worksite is 151 or higher. An AQI of 151 indicates that the air is “unhealthy” to breathe. Employers must monitor air quality using publicly accessible forecasts of AQI for PM2.5 or by directly measuring PM2.5 levels at the worksite.

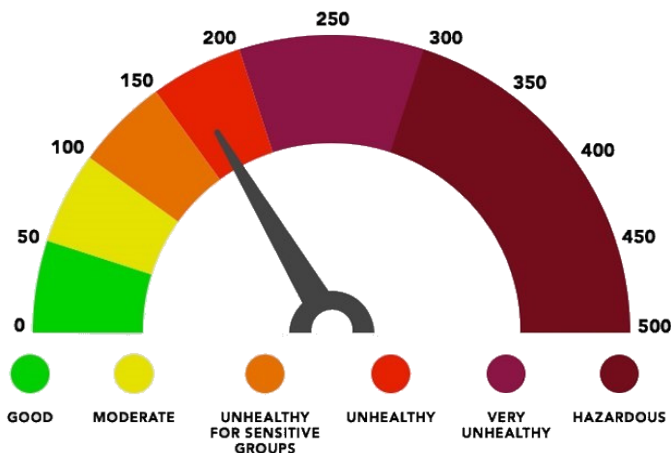


Photo: Cowaymega

WHO DOES THE EMERGENCY STANDARD APPLY TO?

The emergency standard applies to both outdoor and indoor workers who may be exposed to wildfire smoke for more than one hour per day, even if they are not directly impacted by fires.

This may include:

- Construction Workers
- Agricultural Workers
- Utility Workers
- Landscapers and Gardeners
- Day Laborers and Domestic Workers
- Warehouse Workers
- School Personnel

The emergency standard does not apply to wildland firefighters or workers in enclosed buildings, structures, or vehicles with filtered air systems.

WHAT PROTECTIONS DOES THE EMERGENCY STANDARD PROVIDE?

When the AQI for PM2.5 is 151 or higher, employers are required to:

- Communicate with workers about current AQI PM2.5 at the worksite and the potential symptoms of wildfire smoke exposure
- Provide training on the health effects of wildfire smoke, protections available to them, and procedures for obtaining medical treatment
- Reduce workers' exposure to wildfire smoke by providing enclosed building or vehicles with filtered air, relocating work where the AQI or PM2.5 is lower than 151, changing work schedules, lessening work intensity, and/or accommodating longer rest breaks
- Provide respirators (NIOSH-approved N95 filtering face piece respirators) and encourage their voluntary use
- As currently written, the emergency standard requires respirator use along with mandatory fit testing for workers if the AQI for PM2.5 exceeds 500

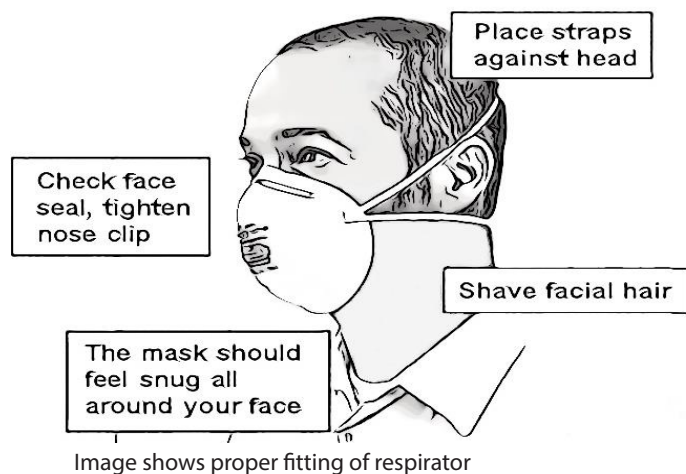


Photo: Cal/OSHA

NEXT STEPS

- Cal/OSHA is working to develop a permanent standard to protect outdoor workers from wildfire smoke.

To download this and other LOSH factsheets, visit losh.ucla.edu

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