



TEAMSTERS SAFETY & HEALTH FACTS

Safety and Health Department, International Brotherhood of Teamsters
25 Louisiana Avenue, NW, Washington DC 20001
202-624-6960 | www.teamstersafety.org | ibtsafety@teamster.org

Protection From Wildfire Smoke

California Code of Regulations, Title 8 Section 5141.1

The California Occupational Safety and Health Standards Board adopted emergency regulation §5141.1, "Protection from Wildfire Smoke," that went into effect on July 29, 2019. The emergency regulation may last for up to one year while Cal/OSHA works to make the regulation permanent to protect employees from exposure to unhealthy levels of wildfire smoke.

Wildfire smoke is composed of harmful chemicals and tiny particles suspended in the air that present a significant health hazard for workers exposed to it. These tiny particles referred to as particulate matter 2.5 (PM2.5)¹ can irritate the lungs and cause serious health effects such as:

- Eye irritation
- Respiratory tract irritation
- Reduced lung function
- Bronchitis
- Worsening of asthma
- Heart failure

Who is covered by this emergency regulation?

- Workplaces where the current Air Quality Index (AQI) for airborne PM2.5 is **151** or greater;
- Workplaces where the employer reasonably anticipates that employees may be exposed to wildfire smoke.

¹ PM2.5. Solid particles and liquid droplets suspended in air, known as particulate matter, which have an aerodynamic diameter of 2.5 micrometers or smaller. PM2.5 is small enough to reach the inner portion of the human lung.



The AQI is a measurement of how polluted the air is. An AQI greater than 100 is unhealthy for sensitive people (people over 65 and people who already have heart and lung problems). An AQI greater than **151** is unhealthy for everyone (see table below). If employees may be exposed to wildfire smoke, then the employer is required to find out the current AQI applicable to the worksite per Appendix A in the emergency regulation. The easiest way to find the current and forecasted AQI for PM2.5 is to use the following resources:²

- www.airnow.gov – enter the zip code of the location where you will be working.
- For mobile devices, access AQI information for more than 150 California locations using the state’s Breathe Well app.

The current AQI is divided into six categories as shown in the table below:

Air Quality Index (AQI) Categories for PM2.5	Levels of Health Concern
0 to 50	Good
51 to 100	Moderate
101 to 150	Unhealthy for Sensitive Groups
151 to 200	Unhealthy
201 to 300	Very Unhealthy
301 to 500	Hazardous

What should employers’ do?

- **Identify harmful exposures.** The employer shall determine employee exposure to PM2.5 for worksites covered by this section before each shift and periodically thereafter;
- **Communication.** The employer shall establish and implement a system for communicating wildfire smoke hazards in a form readily understandable by all affected employees, including provisions designed to encourage employees to inform the employer of wildfire smoke hazards at the worksite without fear of reprisal;
- **Training and instruction.** The employer shall provide employees with effective training and instruction on the new regulation, the health effects of wildfire smoke, and the safe use and proper maintenance of respirators;

² Employee’s without internet access may contact their employer for AQI information.



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- **Control of harmful exposures to employees:**

- **Engineering Controls.**

- The employer may provide a work space in an enclosed building, structure, or vehicle where the air is filtered. The employer should complete an assessment and, if necessary, modify the function of the HVAC system, including filters;

- **Administrative Controls.**

- The employer shall implement administrative controls, if practicable, such as relocating work to a location where the current AQI for PM2.5 is lower, changing work schedules, reducing work intensity, or providing additional rest periods.

- **Control by Respiratory Protective Equipment.**

- Provide mandatory respiratory protection if the AQI for PM2.5 exceeds **500**;
- Provide respirators such as N95 filtering facepiece respirators (masks) to all employees for voluntary use if employers cannot reduce workers' harmful exposure to wildfire smoke so that the AQI for PM2.5 is 150 or lower.
 - To filter out fine particles, respirators must be labeled N-95, N-99, N-100, R-95, P-95, P-99, or P-100, and must be labeled as approved by the US National Institute for Occupational Safety and Health (NIOSH).
 - Respirators shall be cleaned, stored, maintained, and replaced per manufacturer's instructions so that they do not present a health hazard to users. Note: some respirators are considered single use and must be replaced on a daily basis, see manufacturer instructions for service life.

Who is exempt from this emergency regulation?

- Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and the employer ensures that windows, doors, bays, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.
- Enclosed vehicles in which the air is filtered by a cabin air filter and the employer ensures that windows, doors, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.
- The employer demonstrates that the concentration of PM2.5 in the air does not exceed a concentration that corresponds to a current AQI of **151** or greater by measuring PM2.5 levels at the worksite.
- Employees exposed to a current AQI of **151** or greater for a total of one hour or less during a shift.
- Firefighters engaged in wildland firefighting.

For additional information, please contact the IBT Safety and Health Department