



ORGANIZATIONAL AND SAFETY SOLUTIONS

California Wildfire Smoke Regulation

Background

Over the past several years many states in the western region of the United States have experienced exceedingly high temperatures over a long period of time. This, coupled with periods of lower-than-average rainfall, has created the opportunity for an abundance of wildfires to occur. Aside from the damage these fires cause, they also bring health hazards that can be potentially dangerous for employees, especially those who work outdoors.

In 2019, California Occupational Safety & Health Administration (Cal/OSHA) initially implemented the Wildfire Smoke Regulation as an emergency rule and in February 2021 it was made permanent. Under this regulation, Cal/OSHA requires employers to comply with specific measures to protect employees when the air is unhealthy due to smoke generated by wildfires. Although the smoke contains hazardous chemicals, the main pollutant most harmful to people, not close to the fire, is particulate matter. This pollutant is comprised of miniature liquid and solid particles suspended in the air. The smallest of these particles is called PM2.5 meaning they are particulate matter that are 2.5 micrometers in diameter or smaller. These particulates can get into the lungs and bloodstream and can create a variety of health hazards.

General Requirements

The Cal/OSHA Regulation for “Protection from Wildfire Smoke,” Title 8 Section 5141.1, requires employers to protect their workers from the effects of the wildfire smoke when:

- Reasonably anticipating that employees may be exposed to wildfire smoke, and
- The current Air Quality Index (AQI) for PM2.5 is 151 or higher. The AQI is a measurement used by the Environmental Protection Agency (EPA) to inform people about the amount of smoke particles in the air from wildfire.

Employers are required to check the AQI level at the start of each shift and periodically thereafter in order to protect the health of employees. Various government agencies monitor the air throughout the state. An employer can obtain data closest to their business by going to the EPA page: www.airnow.gov The EPA website also provides various other methods that AQI data can be obtained.

AIR QUALITY INDEX (AQI) CATEGORY 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

The regulation applies to operations that take place outdoors and indoors although employees exposed to AQI of 151 or higher for an hour or less during a shift are exempt. There are some additional exemptions to this regulation, a few of which are listed below:

- 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, except when it is necessary to open doors to enter or exit.
- 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, except when it is necessary to open doors to enter or exit the vehicle.

For additional information regarding other workplaces and operations that are exempt from this section refer to Cal-OSHA Title 8 Section 5141.1.

What Employers Need to Do

The regulation identifies three specific areas that an employer is required to fulfill to protect employees. They consist of exposure control, communication and training.

Exposure Control

If the current AQI is 151 or higher the employer must reduce the employee exposure to PM2.5 to an AQI level below 151. Whenever feasible, engineering controls, such as providing enclosed buildings, structures, or vehicles where the air is filtered, can be implemented to reduce the exposure.

- If engineering controls are not sufficient to reduce employee exposures to PM2.5 to less than a current AQI of 151, the employer shall implement administrative controls, if practicable. This could include such measures 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.

If the applicable AQI ranges from 151-500:

- When the current AQI for PM2.5 is at or higher than 151, but does not exceed 500, the employer shall provide a NIOSH-approved respirator, such as N95 respirators, to protect the wearers from inhalation of PM2.5. These respirators are for all employees for voluntary use. Face coverings such as dust masks, bandanas, scarfs will not meet the requirements of this regulation.
- For those employees who use N95 respirators voluntarily, they are not required to have respirator fit testing or medical evaluations as typically required in section 5144. Employers must, however, use Appendix B to this section in lieu of Appendix D to section 5144 for training regarding voluntary use of respirators.

If the applicable AQI is higher than 500:

- When the current AQI for PM2.5 is higher than 500 the employer is required to mandate the use of respirators to all employees. The employer must also ensure that the respirators provided will effectively reduce the PM2.5 levels inside the respirator to an AQI less than 151.
- Employers must also have a written respiratory protection program in place, such as noted in Cal/OSHA Section 5144, that address employee fit testing and medical evaluations.

Communication Requirements

- The employer needs to establish and implement a system to inform employees about the wildfire smoke hazards in a language and manner understandable by employees. This should include information on the current AQI for PM2.5 and protective measures available to employees to reduce their wildfire smoke exposures.
- Employers must encourage employees to inform the employer if the air quality worsens or if they experience any adverse respiratory symptoms that may be the result of wildfire smoke.

Training Requirements

- Employers are required to provide training to their employees specific to the hazards of wildfire smoke hazards. Cal/OSHA Section 5141.1, Appendix B lists the specific training that must be provided including the health effects of wildfire smoke, the right to obtain medical treatment without fear of reprisal, how employees can obtain the current Air Quality Index.
- (AQI) for PM2.5, information on the employers' communication system, and measures the employer will take, including the use of respirators, to protect employees from wildfire smoke

If you have any questions or would like additional information, please contact your local PMA Risk Control Consultant or reach out to us at heretohelp@pmagroup.com.

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