

# Wildfire Smoke



With fires stretching from the Oregon border to San Diego County, the 2021 fire season has already surpassed last years' fire season in the number of acres burned, producing smoke and particulate matter that can travel hundreds of miles and affect the health of people far from the fire's path.

Although there are many hazardous chemicals in wildfire smoke, the main harmful pollutant for people who are not very close to the fire is "particulate matter," the tiny particles suspended in the air. Particulate matter can irritate the lungs and cause persistent coughing, wheezing, or difficulty breathing. Particulate matter can also cause more serious problems, such as reduced lung function, bronchitis, worsening of asthma, and heart disease.

Cal/OSHA's wildfire smoke regulation is designed to protect employees exposed to smoke and particulate matter.

### When does this apply?

This regulation, [Title 8, Section 5141.1](#), applies to workplaces where the current Air Quality Index (AQI) for airborne particulate matter (PM2.5) is 151 or greater and where employers should reasonably anticipate that employees could be exposed to wildfire smoke. Employers are required to check current AQI for worksites covered by Title 8, Section 5141.1 at the start of each shift and periodically thereafter. Although there are AQIs for several pollutants, the wildfire smoke regulation, Title 8 section 5141.1, only uses the AQI for PM2.5 because it is so small.

### Exemptions

The following workplaces and operations are exempt from the regulation:

- Enclosed buildings or structures where the air is filtered by a mechanical ventilation system
- Enclosed vehicles where the air is filtered by a cabin air filter
- Your agency demonstrates the air does not reach the unhealthy levels of PM2.5 through measurements
- Employees are exposed to a current AQI for PM2.5 of 151 or greater for a total of one hour or less during a shift
- Firefighters engaged in wildland firefighting

### How to find and determine the AQI

The easiest way to find the current and forecasted AQI for unhealthy levels of PM2.5 is to go to <http://www.airnow.gov/> and enter the zip code of the location where workers will be.

The screenshot shows the AirNow website interface. At the top, there is a search bar and a dropdown menu for 'Local Air Quality Conditions' with 'Zip Code' and 'State: California' selected. Below this, a map of California highlights the Sacramento area. To the right of the map, a table displays 'Current Conditions' and 'Air Quality Forecast'.

Current Conditions	
Air Quality Index (AQI) observed at 11:00 PDT	48 Good
Health Message: None <small>Note: Values above 500 are considered Beyond the AQI. Follow recommendations for the hazardous category, consult information on reducing exposure to extremely high levels of particulate pollution is available here.</small>	
AQI - Pollutant Details	
Ozone	47 Good
Particles (PM10)	57 Good
Particles (PM2.5)	48 Good
Air Quality Forecast	
Today	Tomorrow
Air Quality Index (AQI) 67 Moderate	Air Quality Index (AQI) 58 Moderate
Health Message: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.	
AQI - Pollutant Details	

Also, the EPA can transmit daily and forecasted AQIs by text or email for particular cities or zip codes. Go to [www.enviroflash.info](http://www.enviroflash.info) for more information.



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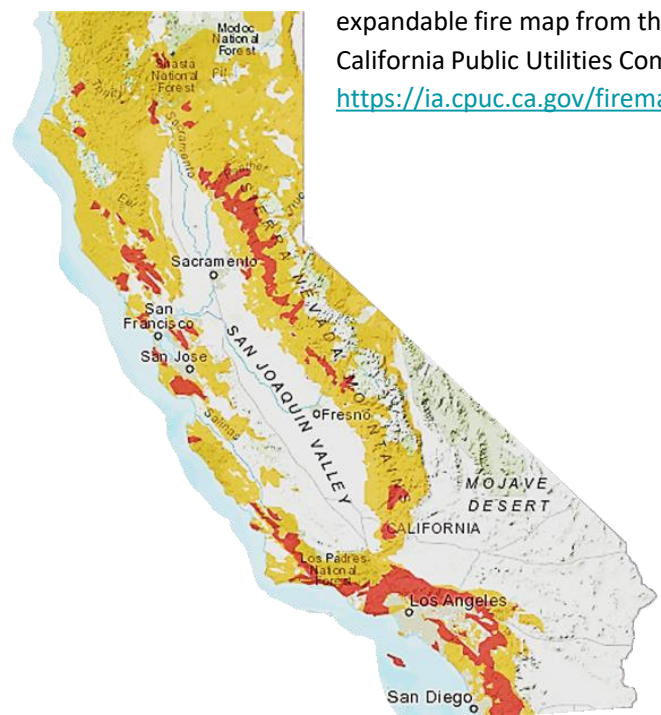
## What do you need to do?

1. Identify harmful exposure to airborne particulate matter from wildfire smoke at the start of each shift and periodically thereafter by checking the AQI for PM2.5 in regions where workers are located.
2. Communicate in a form readily understandable by affected employees about wildfire smoke hazards, including effective procedures for:
  - Informing employees of the current AQI for PM2.5 and protective measures available to reduce their exposure
  - Encouraging employees to inform the agency of wildfire hazards at the worksite and worsening air quality without fear of reprisal and any adverse symptoms that may be the result of wildfire smoke exposure such as asthma attacks, difficulty breathing, or chest pain
3. Reduce harmful exposure to wildfire smoke if feasible, for example:
  - Locating work in enclosed structures or vehicles where the air is filtered
  - Changing procedures such as moving workers to a place with a lower current AQI for PM2.5
  - Reducing work time in areas with unfiltered air
  - Increasing rest time and frequency and providing a rest area with filtered air
  - Reducing the physical intensity of the work to help lower the breathing and heart rate
4. If the exposure to employees cannot be reduced so the AQI for PM2.5 is less than 151, employees must have respirators such as N95 masks available for voluntary use and be encouraged to wear them.

5. Provide training per the requirements in Appendix B of the regulation. This training must include:
  - The health effects of wildfire smoke
  - The right to obtain medical treatment without fear of reprisal
  - How employees can obtain the current AQI for PM2.5
  - The requirements in Title 8 section 5141.1 about wildfire smoke
  - The agency’s two-way communication system
  - The agency’s methods to protect employees from wildfire smoke
  - The importance, limitations, and benefits of using a respirator when exposed to wildfire smoke
  - How to properly put on, use, and maintain the respirators provided by the employer

The full text of Appendix B is included in the [regulation](#) and available on our website, <https://riskcontrol.Sedgwick.com> under Training Resources. We have also developed a Wildfire Smoke Policy that can be found on our website under Sample Programs and Policies.

For information on fire hazard zones in your area, take a look at this expandable fire map from the California Public Utilities Commission <https://ia.cpuc.ca.gov/firemap/>.



[RISKCONTROL.SEDGWICK.COM](https://riskcontrol.SEDGWICK.COM)

Additional resources can be found on the [Cal/OSHA Worker Safety and Health in Wildfire Regions](#) website:

- Video - Requirements to Protect Workers Exposed to Wildfire Smoke
- Fact Sheet – Protecting Workers Exposed to Wildfire Smoke (for employers) in English and Spanish
- Fact Sheet – Protecting Workers Exposed to Wildfire Smoke (for workers) in English and Spanish
- And more