



OSHA Regulations for Protecting Employees from Wildfire Smoke

What to know to protect your business and employees

Wildfires pose a great threat to workers in California, Oregon and Washington. 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 cause irritation to the lungs and lead to persistent coughing, phlegm, wheezing, or difficulty breathing. It can also lead to more serious problems, such as reduced lung function, bronchitis, worsening of asthma, heart failure and early death.

Who's affected?

Employees may be exposed to wildfire smoke if the workplace has an Air Quality Index (AQI) for particulate matter with a diameter of 2.5 micrometers (PM_{2.5}) of 151 or greater.

People over the age of 65 with preexisting heart and lung problems are most likely to suffer from serious health effects. Additionally, employees who work in outdoor conditions such as farming harvests, construction, and activities that require heavy prolonged exertion may be at greater risk. This is because exertion results in a higher respiratory rate and increased pollutant exposure.

How to identify harmful exposures?

Employers must identify employee exposure to PM_{2.5} before each shift and periodically thereafter, to protect the health of employees by the following methods:

- Check AQI forecasts and current AQI for PM_{2.5} using the following websites: U.S. EPA Air Now, U.S. Forest Service Wildland Air Quality Response Program, California Air Resources Board, Oregon Department of Environmental Quality, Washington Smoke Blog, local air pollution control district or air quality management district.
- Many of the organizations listed above can also be contacted via telephone, email or text.
- Measure PM_{2.5} levels at the worksite and convert the PM_{2.5} levels to the corresponding AQI.

How to protect employees from wildfire smoke exposure?

When the current AQI for PM_{2.5} is 151 or greater, OSHA makes the following recommendations for protective methods:

- 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 PM_{2.5}.
- Reducing work time in areas with unfiltered air.
- Increasing rest time frequency and providing a rest area with filtered air.
- Reducing the physical intensity of the work to help lower the breathing and heart rates.
- Allowing workers with underlying health conditions to stay home.
- Consider wearing respirators certified for protection against the specific air contaminant at the workplace.
- Ensure the heating, ventilation, and air conditioning (HVAC) system is working properly and that air filters are clean and properly sealed.

Additionally, employers must be considerate of employees who have been directed to evacuate and may need to stay home from work to help their families with those preparations.

Where can I find additional information?

For an overview of how wildfire smoke impacts employees, reference the specific information for your state.

- California Dept. of Industrial Relations
- Oregon OSHA
- Washington State Dept. of Labor and Industries

Contact TRC to see how we can help you comply with OSHA requirements, including preparing written exposure controls plans, conducting initial and periodic air monitoring, providing employee training specific to your operations and developing engineering and work practice controls to reduce employee exposures.