

WILDFIRE SMOKE AND PROTECTING CALIFORNIA EMPLOYEES

By Steve Wood

To protect employees from the effects of wildfire smoke Cal/OSHA approved the emergency regulation §5141.1 in July of 2019. The standard was extended and may remain until permanent regulation is adopted. I thought it would be beneficial for PCA member districts to become familiar with the regulation to be better prepared to protect their grounds crew during periods of wildfire smoke. While there are many thousands of chemical compounds in wildfire smoke, the main pollutant of concern for outdoor workers is particulate matter with an aerodynamic diameter of 2.5 micrometers or smaller, known as PM_{2.5}. These tiny particles pose significant risk because they can penetrate deep into the lungs and enter the bloodstream. This regulation requires employers to monitor the AQI (Air Quality Index) for PM_{2.5} by using one of the following:

Air Now a program provided by the Environmental Protection Agency (EPA)

Wildland Air Quality Response Program provided by the United States Forest Service

Local air pollution control or local air quality management district websites

A direct read device to measure PM_{2.5} levels at the worksite

In addition, the regulation requires employers to act swiftly and take the following steps when the AQI for PM_{2.5} is greater than 150 due to wildfire smoke.

1. Move workers indoors to an air filtered environment.
2. Relocate workers to an area with an AQI for PM_{2.5} below 151.
3. When relocation is not possible, provide NIOSH-approved respirators, such as an N95 particulate filtering facepiece, to employees for voluntary use and encourage employees to use respirators. For voluntary use of filtering facepieces, fit testing and medical evaluations are not required. However, employers must provide training to employees which includes information about the new regulation, the health effects of wildfire smoke, and the safe use and maintenance of respirators.
4. If AQI for PM_{2.5} exceeds 500 NIOSH-approved respiratory protection is mandatory for outdoor workers and full compliance with §5144 (CAL-OSHA Respiratory Protec-

tion Order) is required including medical evaluations and fit testing. The type of respirator provided must have an assigned protection factor capable of reducing the AQI for PM_{2.5} to a level below 151.



Additionally, managers must implement a two-way system for communicating the current AQI for PM_{2.5} and the protective measures to be utilized by staff. Employees must also be encouraged to inform management of worsening air quality and if any adverse symptoms occur such as difficulty breathing, asthma attacks, or chest pain.

This regulation and the steps needed to comply can seem daunting but is achievable and consists of mainly common sense. If the outdoor air quality is unhealthy to hazardous bring your employees indoors if at all feasible. If you are unable to bring them indoors then make sure they are wearing the required personal protective equipment (PPE) and have been trained on the proper use.

I do recommend that you read and understand the entire regulation to ensure compliance as this article is meant to be for informational purposes only and provides a summary of the requirements. The entire regulation can be found at the following link https://www.dir.ca.gov/title8/5141_1.html and includes more information such as exemptions.

If you would like to discuss this topic further or would like some guidance on another loss prevention matter feel free to contact the GSRMA Loss Prevention Team at lossprevention@gsrma.org or call the office at 530-934-5633.

Steve Wood is a Safety/Loss Prevention Specialist with Golden State Risk Management Authority and he advises members on a myriad of issues and concerns. Not only providing risk assessments and advising members on safety compliance but staying up to date on legislative changes that could affect California Special Districts.