

Protection from Wildfire Smoke

(1) Scope and application. These rules apply to public and private employers who can reasonably expect employees to be exposed to wildfire smoke. Employee exposure levels to wildfire smoke must be determined by the current workplace ambient air concentration for particulate matter 2.5 (PM2.5), regardless of the concentrations for other pollutants.

(2) The following workplaces and operations are exempt from these rules:

- (a) Enclosed buildings and structures in which the air is filtered by a mechanical ventilation system and the employer ensures that windows, doors, bays, and other exterior openings are kept closed, except when it is necessary to open doors to enter or exit.
- (b) 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.
- (c) Wildland firefighting and associated support activities such as fire camp services and fire management.
- (d) Evacuation, rescue, utilities, communications, and medical operations that are directly aiding emergency operations or firefighting operations, and when feasible, all affected employees are provided a sufficient number of NIOSH-approved respirators for PM2.5 for voluntary use when the ambient air concentration for PM2.5 is at or above 55.5 ug/m³ (equivalent to an AQI at or above 151) and are encouraged to use them.
- (e) Agricultural Labor Housing.

(3) Definitions.

AQI – The Air Quality Index was developed by the US Environmental Protection Agency as an indicator of overall air quality and is based on the five criteria pollutants regulated under the Clean Air Act: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide.

NIOSH – The National Institute for Occupational Safety and Health of the United States Centers for Disease Control and Prevention. NIOSH tests and approves respirators for use in the workplace.

PM2.5 – Solid particles and liquid droplets suspended in air, known as particulate matter, with an aerodynamic diameter of 2.5 micrometers or smaller.

Sensitive Group – Groups of people who are most susceptible to health problems as a result of exposure to air pollution from wildfire smoke and they include: anyone who has had a heart attack or stroke, congestive heart failure, coronary artery disease, or angina; pregnant women; people with lung conditions such as asthma or chronic obstructive pulmonary disease (COPD); people with respiratory infections such as pneumonia, acute bronchitis, colds or flu; people who smoke tobacco; people with or recovering from COVID-19, and people with other medical or health conditions which can be exacerbated by exposure to wildfire smoke as determined by a physician.

Wildfire – Any non-structure fire, other than prescribed fire, that occurs in the wildland.

Wildfire Smoke – Emissions from fires in “wildlands,” as defined by the National Wildfire Coordinating Group. Wildlands are an area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.

(4) Identification of harmful exposures. The employer, or their designee, must determine and monitor employee exposure to PM_{2.5} for each workplace when wildfire smoke is present, to comply with these rules, at the start of each shift, and as often as needed, by one or more of the following methods:

- (a) Check the current ambient air concentration for PM_{2.5} from any of the following websites: U.S. EPA [AirNow](#), or the Oregon Department of Environmental Quality’s air quality [website](#); or
- (b) Obtain forecasts and the current concentration in ambient air for PM_{2.5} directly from the U.S. EPA (via AirNow), the [Interagency Wildland Fire Air Quality Response Program](#), or the Oregon Department of Environmental Quality’s air quality website; or
- (c) Measure PM_{2.5} concentrations in ambient air in accordance with the manufacturer’s instructions for the testing device. Employers, or their designee, who measure PM_{2.5} concentrations in ambient air must follow the manufacturer’s instructions for care, maintenance, and calibration and use associated correction factors, if any; or
- (d) If methods (a) through (c) are infeasible, employers must use the [5-3-1 Visibility Chart](#) to estimate the current air quality and corresponding AQI risk category.

EXCEPTION: Section (4) does not apply if the employer assumes that the current concentration in ambient air for PM_{2.5} is greater than 55.5 ug/m³ (equivalent an AQI greater than 151) and complies with sections (5),(6) and (7) with that assumption.

(5) Employee information and training. Employers must develop and implement information and training regarding wildfire smoke before employees are exposed to a workplace ambient air concentration for PM_{2.5} of 35.5 ug/m³ or greater (equivalent to an AQI of 101 or greater). The information and training must be provided at least once a year to all affected employees in a manner and language they understand. Employers must ensure that the training provides an opportunity for feedback from employees about the topics covered in the training, which must include at least the following elements:

- (a) The potential health effects of wildfire smoke, including increased risk of health effects to sensitive groups;
- (b) The definition of sensitive group as defined under section (3);
- (c) How employees can obtain the current ambient air concentration for PM_{2.5} and equivalent AQI level;
- (d) How to effectively operate and interpret any air quality monitoring device provided by the employer to comply with these rules, for each employee designated by the employer to operate such devices;
- (e) The employer's methods to protect employees from wildfire smoke;
- (f) The employee’s right to obtain medical treatment for workplace exposure to wildfire smoke without fear of retaliation;
- (g) The employer's two-way communication system; and
- (h) The importance, limitations, and benefits of using a respirator when provided by the employer, and how to properly put on and use respirators when exposed to wildfire smoke.

(6) Employer two-way communication The employer must develop and implement a system for communicating wildfire smoke hazards before employees are exposed to a workplace ambient air concentration for PM_{2.5} of 35.5 ug/m³ or greater (equivalent to an AQI of 101 or greater). The two-way communication system must be implemented in a manner and language understood by all employees, including provisions designed to encourage employees to inform the employer of wildfire smoke hazards at the worksite without fear of retaliation. The system must include at least the following elements:

- (a) The current workplace ambient air concentration for PM_{2.5} and equivalent AQI level;
- (b) Employer provided protective measures available to employees to reduce their wildfire smoke exposures; and
- (c) Encouraging employees to inform the employer if any of the following occurs:
 - When air quality improves and worsen; and
 - Adverse health symptoms that may be the result of wildfire smoke exposure such as asthma attacks, difficulty breathing, and chest pain.

(7) Control of harmful exposures to employees.

- (a) Engineering controls. The employer must reduce employee exposure to ambient air concentrations of PM_{2.5} to less than 35.5 ug/m³ (equivalent to an AQI of less than 101) by engineering controls whenever feasible. Engineering controls include providing enclosed buildings, structures, or vehicles where the air is adequately filtered.
- (b) Administrative controls. Whenever engineering controls are not feasible or effective to reduce employee exposures to PM_{2.5} to less than 35.5 ug/m³ (equivalent to an AQI of less than 101), the employer must implement administrative controls, if practicable. Such controls may include one or more of the following:
 - (A) Relocate work to an outdoor location where the current ambient air concentration of PM_{2.5} is less than 35.5 ug/m³ (equivalent to an AQI of less than 101);
 - (B) Change work schedules or activities to ensure employee exposures to ambient air concentrations of PM_{2.5} is less than 35.5 ug/m³ (equivalent to an AQI less than 101); and
 - (C) Limit each employee's exposures, when ambient air concentrations of PM_{2.5} is between 35.5 and 55.5 ug/m³ (equivalent to an AQI between 101 and 151), to the following durations:
 - (i) 1 hour during an 8-hour shift;
 - (ii) 1 hour 15 min during a 10-hour shift; or
 - (iii) 1 hour 30 mins during a 12-hour or more shift.

NOTE: Exposure times under (7)(b)(B)(i) – (iii) are not allowed when current ambient air concentrations of PM_{2.5} are greater than 55.5 ug/m³ (equivalent to an AQI greater than 151), may be continuous or combined durations, and should reduce work intensity.

- (c) Control by Respiratory Protective Equipment. Whenever administrative controls are not practicable or not effective to reduce employee exposures to current ambient air concentrations of PM_{2.5} to less than 35.5 ug/m³ (equivalent to an AQI of less than 101), with the exception of section (7)(b)(C), the employer must provide a sufficient number of respirators to all affected employees for mandatory use in accordance with 29 CFR 1910.134 or Appendix A below. Respirators must be NIOSH-approved devices that effectively protect the wearers from inhalation of PM_{2.5}, such as N95 filtering facepiece

respirators. Respirators must be cleaned or replaced as appropriate, and stored and maintained so that they do not present a health hazard to users.

NOTE 1: For employees who do not wear respirators in the course of their normal job duties but will only wear respirators to protect them from wildfire smoke, when the ambient air concentration for PM2.5 is at or above 35.5 ug/m³ (equivalent to an AQI at or above 101), medical evaluations and fit testing are required if available. However, establishing a respiratory protection program, per 29 CFR 1910.134, is NOT required.

NOTE 2: For employees whose only use of respirators involves the voluntary use of filtering facepieces when the ambient air concentration for PM2.5 is less than 35.5 ug/m³ (equivalent to an AQI below 151), such as N95 respirators, fit testing and medical evaluations are not required.

(8) Recordkeeping. Employers must document how the PM2.5 concentration in ambient air is measured and monitored when wildfire smoke is present at the workplace to comply with these rules. Such documentation must be conducted daily for each worksite where employees are exposed to wildfire smoke, and be maintained until the official end of fire season for the county the worksite is located.

Table for Protection from Wildfire Smoke			
Rule requirement	Ambient Air Concentration of PM2.5 and Equivalent AQI		
	< 35.5 ug/m³ (AQI: < 101)	35.5 – 55.5 ug/m³ (AQI: 101 – 151)	> 55.5 ug/m³ (AQI: > 151)
Identification of harmful exposure under section (4)	Yes	Yes	Yes
Employee information and training under section (5)	Yes	Yes	Yes
Employer two-way communication system under section (6)	Yes	Yes	Yes
Engineering controls under section (7)(a)	No	Yes, when feasible	Yes, when feasible
Administrative controls under section (7)(b)(A) & (B)	No	Yes, if practicable	Yes, if practicable
Administrative control under section (7)(b)(C)	No	Yes, if practicable	No
*Control by Respiratory Protective Equipment under section (7)(c)	No	Yes	Yes
Recordkeeping under section (8)	Yes	Yes	Yes

*Including the establishment of a Respiratory Protection Program