

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, and when the current workplace ambient air concentration for PM_{2.5} (particulate matter 2.5 microns) is 12.1 ug/m³ or greater (equivalent to an Air Quality Index of 51 or greater), 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) Employers who can demonstrate that the current ambient air concentration of PM_{2.5} is below 12.1 ug/m³ (below an Air Quality Index of 51) by measuring PM_{2.5} levels at all worksites as necessary where employees may be exposed to wildfire smoke.
- (d) Wildland firefighting and associated support activities such as fire camp services and fire management.
- (e) 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 PM_{2.5} for voluntary use when the ambient air concentration for PM_{2.5} is at or above 55.5 ug/m³ (equivalent to an AQI at or above 151) and are encouraged to use them. NOTE 2 under section (7)(c) applies.
- (f) Agricultural Labor Housing.

(3) Definitions.

AQI – Developed by the US Environmental Protection Agency, the Air Quality Index is 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.

PM_{2.5} – 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 and they include: anyone who suffers from heart disease, congestive failure or coronary artery disease; expectant women; people with heart or lung conditions; people with diabetes; and older adults.

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 employee exposure to wildfire smoke for PM_{2.5} for each worksite covered by these rules at the start of each shift, and as often as needed, by any 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 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 subject to these rules, must provide all affected employees with information and training regarding wildfire smoke when the current workplace ambient air concentration for PM_{2.5} is 12.1 ug/m³ or greater (equivalent to an AQI of 51 or greater). This information and training must be provided once a year, and in a manner and language understood by employees. 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) How employees can obtain the current ambient air concentration for PM_{2.5} and equivalent AQI;
- (c) 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;
- (d) The employer's methods to protect employees from wildfire smoke;
- (e) The employee’s right to obtain medical treatment for workplace exposure to wildfire smoke without fear of retaliation;
- (f) The employer's two-way communication system; and
- (g) 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 system. The employer must establish and implement a system for communicating wildfire smoke hazards when the current workplace ambient air concentration for PM_{2.5} is 12.1 ug/m³ or greater (equivalent to an AQI of 51 or greater) in a manner and language understood by 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;
- (b) 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 worsens; 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. Such controls include providing enclosed buildings, structures, or vehicles where the air is adequately filtered.
- (b) Administrative controls. Whenever engineering controls are not feasible, or do not 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 include the following:
 - (A) Relocate work to a 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); or
 - (B) Change work schedules or activities to ensure employee exposures to ambient air concentrations of PM_{2.5} between 35.5 and 55.4 ug/m³ (equivalent to an AQI between 101 and 150) do not exceed the following:
 - (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 1: Exposure times under (7)(b)(B)(i) – (iii) may be continuous or combined durations, and should also reduce work intensity and provide additional rest periods when feasible.

NOTE 2: Limited exposure times under (7)(b)(B)(i) – (iii) do not apply to sensitive group workers.

- (c) Control by Respiratory Protective Equipment. Whenever administrative controls are not practicable, or do not reduce employee exposures to ambient air concentrations of PM_{2.5} to less than 55.5 (equivalent to an AQI of less than 151), with the exception of section (7)(b)(B), 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 unhealthy levels of wildfire smoke, when the ambient air concentration for PM2.5 is at or above 55.5 ug/m³ (equivalent to an AQI at or above 151), 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 55.5 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 monitored or measured when wildfire smoke is present and the current workplace ambient air concentration for PM2.5 is 12.1 ug/m³ or greater (equivalent to an AQI of 51 or greater). Such documentation must be conducted daily for every worksite where employees are exposed.

Table for Protection from Wildfire Smoke			
Rule requirement	Ambient Air Concentration of PM2.5 and Equivalent AQI		
	12.1 – 35.4 ug/m³ (AQI 51 – 100)	35.5 – 55.4 ug/m³ (AQI 101 – 150)	> 55.5 ug/m³ (AQI 151 or higher)
Identification of harmful exposures under section (4)	Yes	Yes	Yes
Employee information and training under section (5)	Yes	Yes	Yes
Employer two-way communication system section (6)	Yes	Yes	Yes
Engineering controls under section (7)(a)	No	Yes, when feasible	Yes, when feasible
Administrative control under section (7)(b)(A)	No	Yes, if practicable	Yes, if practicable
Administrative control under section (7)(b)(B)	No	Yes, if practicable	No
*Control by Respiratory Protective Equipment under section (7)(c)	No	No	Yes
Recordkeeping under section (8)	Yes	Yes	Yes

*Including the establishment of a Respiratory Protection Program