

Protection from Wildfire Smoke (DRAFT)

(1) Scope and application. These rules apply to public and private employers who ~~can~~should reasonably ~~expect~~anticipate that employees ~~to~~may 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 and exit. Buses, light rail, and other enclosed vehicles used for transit systems where doors are frequently opened to board and deboard passengers are NOT exempt from these rules.
- (c) Wildland firefighting and associated support activities such as fire camp services and fire management must only comply with the information and training requirements under section (5) of these rules.
- (d) Evacuation, rescue, utilities, communications, and medical operations that are directly aiding emergency operations or firefighting operations must only comply with the information and training requirements under section (5) of these rules; and when feasible, all affected employees are provided a sufficient number and appropriate sizes 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 (AQI 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.

~~Forestland – any woodland, brushland, timberland, grazing land or clearing that, during any time of the year, contains enough forest growth, slashing or vegetation to constitute, in the judgment of the forester, a fire hazard, regardless of how the land is zoned or taxed. As used in this subsection, “clearing” means any grassland, improved area, lake, meadow, mechanically or manually cleared area, road, rocky area, stream or other similar forestland opening that is surrounded by or contiguous to forestland and that has been included in areas classified as forestland under ORS 526.305 to 526.370.~~

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 fine particulate matter, with an aerodynamic diameter of 2.5 micrometers or smaller. Measured in micrograms per cubic meter (ug/m³).

Sensitive Groups – People with pre-existing health conditions and those who are sensitive to air pollution who are among those likely to experience health problems from exposure to wildfire smoke. Examples of sensitive groups include:

- People with lung disease such as asthma or chronic obstructive pulmonary disease (COPD), including bronchitis and emphysema, and those who smoke;
- People with respiratory infections, such as pneumonia, acute bronchitis, bronchiolitis, or those with or recovering from COVID-19;
- People with existing heart or circulatory problems, such as irregular heart beat, congestive heart failure, coronary artery disease, angina, and those who have had a heart attack or stroke;
- Children under 18 years old, and adults over age 65;
- Pregnant women;
- People with diabetes; and
- People with other medical or health conditions which can be exacerbated by exposure to wildfire smoke as determined by a physician.

Wildfire – an uncontrolled fire which is burning on forestland and which is damaging, or is threatening to damage, forest resources or structures.

Wildfire Smoke – Emissions from wildfires in wildlands which may include adjacent developed and cultivated areas that the fire spreads to or originates from, or structural fires originating from wildfires as defined above.

Wildlands – Uncultivated and sparsely populated geographical areas covered primarily by grass, brush, trees, slash, or a combination thereof.

(4) Exposure assessment/Identification of harmful exposures. Employers must determine and monitor employee exposure to PM2.5 for each work location where employees are exposed to wildfire smoke is present. Such assessments must be conducted at the start of each shift and as needed to identify changes in PM2.5 concentration which would necessitate the appropriate protection for employees covered under section (7), and and as often as needed use, by one or more of the following methods:

- (a) Check the current ambient air concentration for PM2.5 from any either 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 PM2.5 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 the work location ambient air concentration for PM2.5 concentrations in ambient air in accordance with the manufacturer's instructions for the testing device used. Such testing devices must be provided by the employer who must ensure that ~~Employers, or their designee, who measure PM2.5 concentrations in ambient air must follow~~ the manufacturer's instructions and specifications for care, maintenance, and calibration, and use associated correction factors are followed, 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 PM2.5 is greater than 55.5 ug/m³ (AQI 151) and uses that assumption to comply with sections (5),(6) and (7).

(5) ~~Employee~~ information and training. Employers must develop and ~~implement~~ provide information and training regarding wildfire smoke hazards. Training must be provided before employees are exposed to a workplace ambient air concentration for PM2.5 of 35.5 ug/m³ (AQI 101) or greater, and at least annually thereafter. The information and training must be provided ~~at least once a year~~ to all affected employees in a manner and language they readily understand. Employers must ensure that the training provides an opportunity for feedback and questions from employees about the topics covered, 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;
- ~~(a)~~(b) How wildfire smoke can exposure can cause inflammation of the eyes – symptoms such as burning sensations, redness, and tearing can temporarily impair one’s vision.
- ~~(b)~~(c) The definition of sensitive groups as defined under section (3);
- ~~(c)~~(d) How employees can obtain the current and forecasted ambient air concentration for PM2.5 and equivalent AQI level;
- ~~(d)~~(e) 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;
- (f) The employer's methods to protect employees from wildfire smoke;
- ~~(e)~~(g) The procedures the supervisor must follow if an employee exhibits adverse symptoms of wildfire smoke exposure, including appropriate emergency response procedures;
- ~~(f)~~(h) The employee’s right to report health issues related to wildfire smoke exposure and obtain medical treatment for workplace exposure to wildfire smoke without fear of retaliation;
- ~~(g)~~(i) The employer's two-way hazard communication system for wildfire smoke hazards; and
- ~~(h)~~(j) 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) ~~Hazard~~ Employer two-way communication system. The employer must develop and implement a system for communicating wildfire smoke hazards before employees are exposed to a workplace ambient air concentration for PM2.5 of 35.5 ug/m³ (AQI 101) or greater. The ~~two-way communication~~ system must be implemented in a manner and language readily understood by all employees, including provisions designed to encourage employees to inform the employer of wildfire smoke hazards at the worksite, free from discrimination and retaliation under ORS 654.062(5) without fear of retaliation. The system must include at least the following elements:

- (a) Notifying employees when ~~The current~~ work location place ambient air concentration for PM2.5 is at or above 35.5 ug/m³ (AQI 101);
- (b) Employer provided protective measures covered under section (7) available to employees to reduce their wildfire smoke exposures;
- ~~(b)~~(c) Notifying employees when ambient air concentration for PM2.5 drops below levels requiring protective measures; and

~~(c)~~(d) 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 exposure controls to employees.~~

- (a) Engineering controls. Employers must ~~use engineering controls to~~ reduce employee ~~PM2.5 exposure to ambient air concentrations of PM2.5~~ to less than 35.5 ug/m³ (AQI 101) ~~by engineering controls~~ whenever feasible. ~~Such 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 do not or effective to~~ reduce employee exposures to PM2.5 to less than 35.5 ug/m³ (AQI of less than 101), employers must implement administrative controls, ~~if practicable~~ whenever feasible. Such controls may include one or more of the following:
- (A) Relocate work to an outdoor location where the current ambient air concentration of PM2.5 is less than 35.5 ug/m³ (AQI 101);
- (B) Change work schedules ~~to a time when or activities to ensure employee exposures to~~ ambient air concentration of PM2.5 is less than 35.5 ug/m³ (AQI 101); and
- (C) ~~WLimit each employee's exposures, when ambient air concentrations of PM2.5 is between 35.5 and 55.5-4 ug/m³ (AQI 101 – 150),~~ limit employee exposure without the use of respiratory protection to the following durations:
- (i) 1 hour total during an 8-hour shift;
- (ii) 1 hour 15 min total during a 10-hour shift; or
- (iii) 1 hour 30 mins total 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 PM2.5 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 engineering and administrative controls are not ~~practicable-feasible~~ or effective to reduce employee exposure to current ambient air concentration of PM2.5 to less than 35.5 ug/m³ (AQI 101), with the exception of section (7)(b)(C), the employer must ~~provide-maintain~~ a sufficient number and appropriate sizes of NIOSH-approved respirators that effectively protects wearers from PM2.5 at each work location where employees are exposed. Such respirators must be provided at no cost to employees when:

(A) The current PM2.5 level is between 35.5 ug/m³ and 55.4 ug/m³ (AQI 101 – 150) for voluntary use and at the worker's request. Fit testing and medical evaluations are NOT required for voluntary use of respirators.

(B) The current PM2.5 level is 55.5 ug/m³ (AQI 151) or greater for mandatory use for all affected workers.

~~(iii) —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 PM2.5, 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 ~~employers who's~~ employees ~~who~~ do not wear respirators ~~in during~~ the course of their normal job duties but will only wear respirators ~~for to protection 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 determined~~ and monitored ~~when the PM2.5 level is at or above 35.5 ug/m³ (AQI 101) -at each work location where employees are exposed to 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. Such documentation must and be saved maintained for the remainder of until the official the end of calendar, and include the following information:~~

~~_____ (a) Date and time the PM2.5 concentration was assessed;~~

~~_____ (b) Work location assessed;~~

~~_____ (c) PM2.5 concentration determined;~~

~~_____ (d) Name of person who made the assessment; and~~

~~_____ (e) Assessment method under section (4)(a) – (d) use.~~

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