

# Oregon OSHA Regulatory Rule Update

## Rules to Address Employee Exposure to

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Department of Consumer  
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# Oregon OSHA Regulatory Update

## Rules to Address Employee Exposure to Wildfire Smoke

- Adopted = May 10, 2022
- Effective = July 1, 2022
- Provides protections for employees from wildfire smoke

# Oregon OSHA Regulatory Update

## Wildfire Smoke

**OAR 437-002-1081 and OAR 437-004-9791**

### **Scope and application:**

This standard applies to public and private sector employers whose employees are or will be exposed to wildfire smoke where the ambient air concentration for fine particulate matter (PM<sub>2.5</sub>) is at or above 35.5 µg/m<sup>3</sup> (Air Quality Index value of 101 for PM<sub>2.5</sub>)

1 ug = 1 cm/10000



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## Wildfire Smoke

### Full exemptions:

- Enclosed buildings and structures with filtered air by a mechanical ventilation system and that windows, doors, bays, and other exterior openings are kept closed.
- Enclosed vehicles with filtered air by a properly maintained cabin air filter system, and when the windows, doors, and other exterior openings are kept closed.
- Buses, light rails, and other enclosed vehicles used for public transit systems where doors are frequently opened to board and deboard passengers are not included under this exemption.

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### Full exemptions:

- Predetermination that operations will be suspended to prevent employee exposure to wildfire smoke at an ambient air concentration for PM<sub>2.5</sub> of 35.5  $\mu\text{g}/\text{m}^3$  (AQI 101) or higher.
- Employees working at home.

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### Partial exemptions:

The following workplaces and operations are only subject “information and training,” and “voluntary use of filtering facepiece respirators” under this standard:

- Emergency operations that are *directly* involved in the *protection of life or property*.
- Wildland firefighting and associated support activities.
- Work activities with only intermittent employee exposure of less than 15 minutes in an hour over AQI 101 for a total exposure of less than one hour in a single 24-hour period.

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**Exposure assessment:** Monitor employee exposure to wildfire smoke exposed to an ambient air concentration for PM<sub>2.5</sub> at or above 35.5  $\mu\text{g}/\text{m}^3$  (AQI 101). This monitoring must be performed at the start of each shift, and as needed using:

- Oregon Department of Environmental Quality (DEQ), U.S. EPA AirNow, or Interagency Wildland Fire Air Quality Response Program websites, or equivalent source.
- Notifications of air quality advisories due to wildfire smoke issued by the Oregon DEQ or local government health agencies.
- Direct monitoring equipment.
- If none of the options are available, the 5-3-1 index can be used.

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### Exposure assessment:

Examples of 5-3-1 Visibility Index distances in below photos.

First: 3-5 miles, Second: 1.5-2.75 miles, and Third: less than 1 mile.





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### Information and training:

Provide annual wildfire smoke training to all employees, including new employees, supervisory and non-supervisory employees, who may be exposed to an ambient air concentration for PM<sub>2.5</sub> at or above 35.5 µg/m<sup>3</sup> (AQI 101). The training must:

- Include 10 specified elements
- Be documented in written or electronic record

Oregon OSHA will provide the training on 5 of the 10 required elements, and it is anticipated to be available after June 15, 2022 in both English and Spanish, and will be posted at:

<https://osha.oregon.gov/Pages/topics/wildfires.aspx>

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**Employer two-way communication:** A two-way communication system must be used to communicate wildfire smoke information between supervisors and employees. To include any changes in the air quality at the work location.

The two-way communication must:

- allow employees to report any issues concerning their access to exposure controls, and to report any health symptoms.

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### Engineering and administrative controls:

Engineering and administrative controls must be used to reduce employee exposure to PM<sub>2.5</sub> below 35.5 µg/m<sup>3</sup> (AQI 101) from wildfire smoke.

Such controls include:

- relocating outdoor workers to enclosed buildings or to outdoor locations where the air quality is better,
- making work schedule changes to reduce employee exposures.

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### Voluntary use of filtering facepiece respirators:

Whenever employee exposure to PM<sub>2.5</sub> is at or above 35.5 µg/m<sup>3</sup> (AQI 101), ensure that NIOSH-approved filtering facepiece respirators are provided to employees for voluntary use. Ensure that such respirators are:

- Provided and replaced as needed at no cost to employees by distribution to employees;
- Maintaining a sufficient supply that is readily accessible and location known by employees.

Voluntary use of filtering facepiece respirators used in this standard do not fall under the Respiratory Protection Standard requirements



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### **Required use of filtering facepiece respirators in accordance with a Wildfire Smoke Respiratory Protection Program:**

Whenever employee exposure to PM<sub>2.5</sub> is at or above 200.9  $\mu\text{g}/\text{m}^3$  (AQI 251), ensure that NIOSH-approved filtering facepiece respirators are provided for required used. Filtering facepieces respirators are used for wildfire smoke, follow the Appendix A.

- No medical evaluation
- No fit testing

## Appendix A: **Mandatory** Workplace Guidance for the Use of Filtering Facepiece Respirators to Address Wildfire Smoke

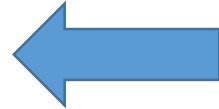
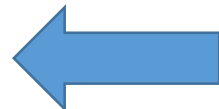
This appendix applies only to employers covered by this standard that require NIOSH-approved filtering facepiece respirators, including N95, P95, R95, N99, P99, N100 and P100, to be used by their employees strictly for wildfire smoke exposures when the work location ambient air concentrations of PM<sub>2.5</sub> is at or above 200.9 µg/m<sup>3</sup> (AQI 251) and below 500.4 µg/m<sup>3</sup> (AQI 501).

**Note:** Employer supplies of NIOSH-approved filtering facepiece respirators for required use under this standard should include an adequate size selection for exposed employees.

Filtering facepiece respirators are disposable, negative-pressure, air purifying respirators where an integral part of the facepiece or the entire facepiece is made of air contaminant filtering material. This appendix does not apply to other types of respirators, including but not limited to elastomeric tight-fitting respirators, nor does it apply to situations where workers use filtering facepiece respirators for protection against air contaminants other than PM<sub>2.5</sub> from wildfire smoke.

Employers whose workers are required to wear filtering facepiece respirators to protect against wildfire smoke exposures when workplace ambient air concentrations of PM<sub>2.5</sub> is at or above 200.9 µg/m<sup>3</sup> (AQI 251) must either develop and implement a respiratory protection program in accordance with the Respiratory Protection Standard (29 CFR 1910.134), or a Wildfire Smoke Respiratory Protection Program in accordance with the following requirements when workplace ambient air concentration of PM<sub>2.5</sub> is under 500.4 µg/m<sup>3</sup> (AQI 501):

- (A) Employee training. Employers must ensure that employees wearing filtering facepiece respirators are trained in the proper use of the respirators, including putting them on and removing them, any limitations on their use, how to care for the respirator, and the ability to demonstrate a seal check as described in section (B) of this appendix.
- (B) Filtering facepiece respirator user seal check. Each employee who uses a filtering facepiece respirator must perform a user seal check to ensure a sufficient face fit to maximize effectiveness each time the respirator is put on. Either the positive or negative pressure checks listed in this appendix, or the respirator manufacturer's recommended user seal check method must be used.





1. Instructions for positive pressure user seal check. Once you have properly donned the respirator, place your hands over the facepiece, covering as much surface area as possible. Exhale gently into the facepiece. The face fit is considered sufficient if a slight positive pressure is being built up inside the facepiece without feeling air passing between your face and the facepiece. If the particulate respirator has an exhalation valve, then performing a positive pressure check may not be possible. In such cases, a negative pressure check must be performed.



2. Instructions for negative pressure user seal check. Negative pressure seal checks are typically conducted on particulate respirators that have exhalation valves. Once you have properly donned the respirator, cover the filter surface with your hands as much as possible and then inhale gently. The face fit is considered sufficient if the facepiece slightly collapses towards your face without feeling air passing between your face and the facepiece.



3. Correcting problems discovered during the seal check. In the case of either type of seal check (positive or negative), if air leaks around the nose, use both hands to readjust the nosepiece by placing your fingertips at the top of the metal nose clip. Slide your fingertips down both sides of the metal strip to more efficiently mold the nose area to the shape of your nose. Readjust the straps along the sides of your head until a proper seal is achieved.



(C) Filtering facepiece respirator storage and replacement. Store, maintain, and replace so that they do not present a health hazard to the user.

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### **Required use of respirators in accordance with the Respiratory Protection Standard – 29 CFR 1910.134 or OAR 437-004-1041:**

Whenever employee exposure to PM<sub>2.5</sub> is at or above 500.4 µg/m<sup>3</sup> (AQI 501), employers must ensure that employees wear appropriate NIOSH-approved respirators in accordance with the applicable Respiratory Protection Standard which will include medical evaluation and fit testing requirements.



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AQI Value	General Requirements
101 - 250	<ol style="list-style-type: none"><li>1. Assess and monitor air quality at each work location where employees are exposed;</li><li>2. Provide and document employees training;</li><li>3. Implement two-way communication system;</li><li>4. Implement engineering and administrative controls; and</li><li>5. Provide NIOSH-approved filtering facepiece respirators for voluntary use.</li></ol>
251 - 500	<ol style="list-style-type: none"><li>1. 1 through 4 for AQI 101 – 250 above; and</li><li>2. Provide NIOSH-approved filtering facepiece respirators for mandatory use by implementing a Wildfire Smoke Respiratory Protection Program in accordance with Appendix A.</li></ol>
501 and above	<ol style="list-style-type: none"><li>1. 1 through 4 for AQI 101 – 250 above; and</li><li>2. Provide NIOSH-approved respirators for mandatory use by implementing a Respiratory Protection Program in accordance with 29 CFR 1910.134 or OAR 437-004-9791.</li></ol>

See rules for complete requirements.

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## Coming Soon:

- Further updates to both COVID-19 rules (temporary rules expire in September)
- Consultations in Public Entities
- Employer Provided Housing (ALH)
- Lead (PEL)
- Non-entry Firefighting
- Standards Improvements (federal OSHA)

# Questions / Comments

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