Note: This guide is intended to assist supervisors and employees in fulfilling the 4 operational practice training requirements of the Oregon OSHA Temporary Rule on Protection from Wildfire Smoke. The other 6 training elements that can be found in the online training are not on this sheet. They include symptoms and health effects of wildfire smoke exposure, sensitive groups, employee rights, how to access the AQI, and additional details on use of respirators.

Know the air quality level
Visit the EH&S Wildfire Smoke/Air Quality webpage for wildfire information and to monitor local air quality in Corvallis, Bend, Newport and Portland.

Obtain 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.

These air quality indexes are informational tools that indicate when outdoor air quality is good, moderate, unhealthy for sensitive groups, very unhealthy, or hazardous and signal when healthy workers may begin to experience health effects.

Methods to protect employees from wildfire smoke
When air quality is unhealthy, a basic approach to minimize the health risks is to reduce contact time with wildfire smoke.

Workers may also be affected by high temperatures, and some workers may be more susceptible than others to poor air quality. Employers must use engineering and administrative control to reduce employee PM2.5 exposure to less than 150.5 ug/m3 (AQI 201) whenever feasible.

Exposure control methods include:
- Relocate work to less smoky areas with lower AQI
- Reschedule work until air quality improves
- Reduce work time in areas with unfiltered air
- Reduce the level or duration of physical exertion
- Increase rest time frequency and provide a rest area with filtered air
- Where feasible, provide enclosed structures for employees to work in, where the air is filtered
- Where feasible, provide enclosed vehicles
- During times of poor air quality, operate the air conditioning in “recirculate” mode and keep vents and windows closed
- Respiratory protection (see next section)

Respirators
When chosen and worn correctly, respirators can reduce exposure to wildfire smoke. Whenever employee exposure to PM2.5 is at or above 35.5 ug/m3 (AQI 101), the employer must maintain a sufficient number and sizes of NIOSH-approved respirators that effectively protect wearers from PM2.5 at each work location where employees are exposed. Such respirators must be provided at no cost and be readily available for voluntary use to all exposed workers at their request.

Whenever employee exposure to PM2.5 is at or above 150.5ug/m3 (AQI 201) even after the application of engineering and administrative controls, the employer must ensure that employees wear NIOSH-approved respirators. For filtering facepiece respirators used exclusively to protect employees from wildfire smoke, the employer need not implement a full Respiratory Protection Program.

One common type of respirator suitable for protection against wildfire smoke is an N95 filtering facepiece mask.

For the 2021 wildfire season, KN-95s can be substituted for NIOSH-approved filtering facepiece respirators for exposures below 500.4 ug/m3 (AQI 501). For exposures at 500.4 ug/m3 (AQI 501) and above, NIOSH-approved filtering facepiece respirators must be used.

KN95 masks are available free of charge for OSU employees. Orders can be placed using BennyBuy. Search for “Resumption Order Form” in BennyBuy to place order.
NIOSH-approved N95 respirators are available at OSU Chemistry Stores. Departments can purchase these to provide to their employees.

See OSU Respiratory Protection Program for additional information.

What to do if a worker becomes ill due to wildfire smoke exposure
For medical emergencies such as asthma attacks, difficulty breathing, and chest pains call for emergency medical response 9-1-1.

For workers who believe their health has been impacted by wildfire smoke as part of their employment seek medical attention, and explain they were exposed to wildfire smoke at work.

Ensure OSU Workers’ Compensation policies and procedures are followed for all work related injuries and illnesses.

See OSU Emergency Management for emergency procedures.

Air quality monitoring devices
Contact EH&S to perform indoor air quality monitoring. EH&S has a DustTrak II Aerosol Monitor that measures aerosol contaminants such as dust, smoke, fumes, and mists.

Handheld devices can be purchased online from various retailers. Always follow manufacturer’s instructions for use. Be mindful that the readings on these devices can vary from www.airnow.gov. Possible causes of variances include storage conditions and calibration.

Colleges, units or departments that have their own air quality monitoring devices are required to instruct employees how to effectively operate and interpret the monitoring device if it is used to comply with the Oregon OSHA Temporary Rule on Protection from Wildfire Smoke.

Communication system for wildfire smoke hazards
Self-monitoring is available by using the EH&S Wildfire Smoke/Air Quality webpage and other resources in the know your air quality section.

Before employees are exposed to ambient air concentrations for PM2.5 at or above 35.5 ug/m3 (AQI 101), employers must develop and implement a system to communicate wildfire smoke hazards, including:
- Notifying employees when the worksite’s ambient air concentration is at or above 35.5 ug/m3 (AQI 101).
- Giving notification when the ambient air concentration is at or above 150.5ug/m3 (AQI 201), which involves very unhealthy air quality with the risk of health effects increased for everyone.
- Notifying employees when the ambient air concentration is at or above 500.4 ug/m3 (AQI 501).

Employers are also required to notify employees when ambient air concentration for PM2.5 drops below levels requiring protective measures 35.5 ug/m3 (AQI 101).

Employees are encouraged to inform their supervisor and/or EH&S (ehs@oregonstate.edu) when the air quality worsens or improves in their work area.

More information
Oregon OSHA Wildfire Smoke Rules
Oregon OSHA Online Training
Oregon OSHA Wildfire Addressing Worker Concerns
CDC Protect Yourself from Wildfire Smoke

Contact EHS:
safety@oregonstate.edu
oregonstate.edu/ehs/
541 • 737 • 2273