Fact Sheet

OSU
ENVIRONMENTAL
HEALTH & SAFETY

# Safety Instruction

## Wildfire Smoke Exposure & operational practices

Note: This guide is intended to assist supervisors and employees in fulfilling the 5 operational practice training requirements of the Oregon OSHA Protection from Wildfire Smoke Rule. The other 5 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, Portland, and throughout the state of Oregon (See the Open Map).

Obtain the current concentration in ambient air for PM2.5 directly from the U.S. EPA (via AirNow), the Fire and Smoke Map, 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 35.5? 150.5 ug/m3 (AQI 201) AQI 101? 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), even after implementation of engineering and administrative controls 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 200.9 ug/m3 (AQI 251) even after the application of engineering and administrative controls, the employer must ensure that employees wear NIOSH-approved respirators when such use would not expose the wearer to a hazard associated with a substantially more serious injury or illness than the potential acute health effects of wildfire smoke exposure. For filtering facepiece respirators provided and used exclusively to protect employees from wildfire smoke, the employer may implement and follow the Wildfire Smoke Respiratory Protection Program as described in Appendix A in lieu of conducting medical evaluations and fit testing, which are required under the full Respiratory Protection Program.

Whenever employee exposure to PM2.5 is at or above 500.4 ug/m3 (AQI 501) even after the application of engineering and administrative controls, the employer must ensure that employees wear NIOSH-approved respirators when such use would not expose the wearer to a hazard associated with a substantially more serious injury or illness than the potential acute health effects of

wildfire smoke exposure. For filtering facepiece respirators provided and used exclusively to protect employees from wildfire smoke concentrations of PM2.5 at or above 500.4 ug/m3 (AQI 501), the employer is required to implement a complete Respiratory Protection Program in accordance with 29 CFR 1910.134 – Respiratory Protection.

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

NIOSH-approved N95 respirators are available free of charge for OSU employees. Orders can be placed using Resumption Supplies Orders in Surplus Property. NIOSH-approved N95 respirators are also 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 Protection from Wildfire Smoke Rule.

## 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.

A two-way communication system must be used to communicate wildfire smoke information between supervisors and employees. Such information includes any changes in the air quality at the work location that would necessitate an increase or decrease in the level of exposure controls. The two-way communication must also allow employees to report health symptoms from wildfire smoke exposure that could necessitate medical attention. The means to share information may include, but are not limited to, in-person, cell phone and two-way radio communication.

## More information

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

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