

	Administrative Regulation	
	Policy#	9.6
	Effective:	06/27/2022
	Revised:	06/27/2025
Wildfire Smoke Exposure		Owner: Human Resources

Note: Terms in **bold** and *italics* throughout this policy are defined below.

PURPOSE:

To protect employees from **wildfire smoke** exposure by promoting awareness, prevention, and timely response to air quality hazards. This policy supports the City's LiveWell commitment to Physical and Occupational Well-Being while ensuring compliance with Oregon OSHA requirements.

SCOPE:

Applies to all employees who may be exposed to wildfire smoke where the AQI is 101 or higher. This policy fosters a culture of care by empowering supervisors and staff to recognize hazards, prioritize health, and adjust operations in support of resilience and service continuity. The following workplaces and operations are exempt:

- Enclosed buildings in which the air is filtered by a mechanical ventilation system and windows, doors, bays, and other exterior openings are kept closed, except when it is necessary to briefly open doors to enter or exit.
- Enclosed vehicles in which the air is filtered by a properly maintained cabin air filter system and when the windows, doors, and other exterior openings are kept closed, except when necessary to briefly open doors to enter or exit.
- Employees working from home.

The following workplaces and operations are only subject to subsections 3.3. (Personal Protective Equipment) and 4 (Training):

- Emergency operations that are directly involved in the protection of life or property, public safety power shutoffs, or restoration of essential services, such as evacuation, rescue, medical, structural firefighting, law enforcement, utilities, and communications.
- Work activities involve only intermittent employee exposure of less than 15 minutes in an hour to an AQI level at or above 101 for a total exposure of less than one hour in a single 24-hour period.
- Wildland firefighting and associated support activities such as fire camp services and fire management.

POLICY:

The City of Springfield complies with OAR 437-002-1081 – Protection from Wildfire Smoke – and is committed to creating a safe and informed environment when wildfire smoke threatens employee well-being. Wildfire smoke can cause both immediate and long-term health effects, especially for sensitive individuals. Promoting air quality awareness and protective behaviors is essential to reducing these risks. Supervisors and employees are expected to collaborate on risk mitigation strategies to ensure a safe and compassionate workplace during smoke events.

Fine particulate matter of the 2.5 micrometer diameter or smaller size (PM 2.5) are the most harmful because they can reach deep into the lungs. The symptoms of wildfire smoke exposure:

- **Eyes:**
Burning sensation, redness, and tearing caused by irritation and inflammation that may temporarily impair vision.
- **Respiratory system:**
Runny nose, sore throat, cough, difficulty breathing, sinus irritation, wheezing, shortness of breath, fatigue, headaches, irregular heartbeat, and chest pain.
- **Sensitive groups:**
may experience increased health risks and chronic exposures can increase the risk of cardiovascular disease and can exacerbate asthma.

PROCEDURE:

1. Responsibilities

1.1. Risk Manager:

- 1.1.1. The Risk Manager is responsible for maintaining and updating the written Wildfire Smoke Exposure Management Administrative Regulation.

1.2. Managers and Supervisors:

- 1.2.1. Managers and supervisors of employees who perform outdoor work during or after wildfires when smoke is present are responsible for the following:
 - 1.2.1.1. Maintaining department-specific Standard Operating Procedures (SOPs) that align with the principles outlined in this administrative regulation.
 - 1.2.1.2. Ensuring employees are informed about the Wildfire Smoke Exposure Management Program.

- 1.2.1.3. Providing employees with access to clean, properly maintained N95 respirators for voluntary use, and ensuring availability during high-risk periods.
- 1.2.1.4. Verifying that employees who voluntarily use respirators have reviewed this administrative regulation.
- 1.2.1.5. Proactively offering filtered air environments when feasible, and prioritizing employee health in scheduling decisions.
- 1.2.1.6. Implementing the following control measures for employees required to work outdoors during wildfire smoke conditions:
 - 1.2.1.6.1. Adjusting work procedures by relocating employees to areas with a lower Air Quality Index (AQI).
 - 1.2.1.6.2. Reducing the duration of work in areas without filtered air.
 - 1.2.1.6.3. Increasing the frequency and duration of rest breaks and providing rest areas with filtered air.
 - 1.2.1.6.4. Decreasing the physical intensity of work to lower breathing and heart rates.
 - 1.2.1.6.5. Notifying the department director immediately if worsening air quality or symptoms are reported and responding with compassion and urgency.

1.3. Employees:

- 1.3.1. Employees who perform outdoor work during wildfire smoke conditions are responsible for the following:
 - 1.3.1.1. Reviewing, understanding, and following this administrative regulation.
 - 1.3.1.2. Inform their supervisor if the air quality deteriorates.
 - 1.3.1.3. Reporting any symptoms related to smoke exposure to their supervisor.
 - 1.3.1.4. Seeking medical attention if experiencing symptoms related to smoke exposure.

2. Wildfire Smoke Exposure Control Plan

2.1. Exposure Monitoring:

- 2.1.1. Before, and periodically during each shift, leadership will check the current average and forecasted AQI from the [Oregon Department of Environmental Quality](#), the U.S. Environmental Protection Agency [AirNow](#), the [Interagency Wildland Fire Air Quality Response Program](#), or another verified source. The City promotes early detection and clear communication about AQI risks.
- 2.1.2. The department may elect to test **PM2.5** levels using a direct reading particulate monitor instrument if they comply with the following:
 - 2.1.2.1. The monitor does not underestimate employee exposures to wildfire smoke; or may underestimate wildfire smoke exposures, but the department has obtained information on the possible error of the monitor from the manufacturer or other published literature and has accounted for the error of the monitor when determining exposures to PM2.5 to ensure that employee exposure levels are not underestimated.
 - 2.1.2.2. The monitor must be designed and manufactured to measure airborne particle concentrations ranging from an aerodynamic diameter of 0.1 micrometers up to and including 2.5 micrometers. Monitors with a wider particle size range may be used if the results are reported and treated as PM2.5 levels.
 - 2.1.2.3. The employer shall ensure that the monitor it uses is calibrated, maintained, and used in accordance with the manufacturer's instructions for accurately measuring PM2.5 concentrations.
 - 2.1.2.4. The City will use the following table to convert PM2.5 readings to AQI Category.

PM2.5 in Micrograms per Cubic Meter (µg/m3)	Air Quality Index (AQI) Categories for PM2.5	Level of Health Concern
0 to 12.0	0 to 50	GOOD
12.1 to 35.4	51 to 100	MODERATE
35.5 to 55.4	101 to 150	UNHEALTHY FOR SENSITIVE GROUPS
55.5 to 150.4	151 to 200	UNHEALTHY
150.5 to 250.4	201 to 300	VERY UNHEALTHY
250.5 to 500.4	301 to 500	HAZARDOUS

2.2. Communication of Air Quality and Protective Measures:

- 2.2.1. Leadership is responsible for informing employees about air quality, protective measures, and operations changes.

- 2.2.2. Employees shall notify their supervisors of worsening air quality and any adverse symptoms they may be experiencing due to smoke exposure.

3. Exposure Control Methods

3.1. Engineering Controls:

- 3.1.1. The City will control exposure to wildfire smoke primarily through engineering controls, including:
 - 3.1.1.1. Locating personnel in enclosed buildings, structures, or vehicles where air is adequately filtered when the AQI is at 101.
 - 3.1.1.2. Keeping windows closed and only opening doors for entrance or exiting a building or vehicle.

3.2. Administrative Controls:

- 3.2.1. Whenever engineering controls are not feasible or do not reduce employee exposure to less than an AQI of 101, the City will implement administrative controls, including:
 - 3.2.1.1. Relocating workers to a location where the AQI is lower.
 - 3.2.1.2. Changing work schedules.
 - 3.2.1.3. Reducing work intensity.
 - 3.2.1.4. Providing rest periods.
 - 3.2.1.5. Temporarily cease operations when necessary to protect employee health and reinforce the principle that safety comes before productivity in hazardous conditions.

3.3. Personal Protective Equipment (PPE):

- 3.3.1. Whenever engineering and administrative controls are not feasible or do not reduce employee exposure to less than an AQI of 101, the City will provide respiratory protection in the form of N95 respirators and recommend their use. The AQI for PM2.5 will determine whether respirator use is voluntary or required for employees.
- 3.3.2. AQI below 100 – Voluntary use N95 filtering facepiece respirators will be provided on employee request for voluntary use. Employees should review information regarding respirator use, care, and limitations before voluntarily wearing respirators under these conditions.

- 3.3.3. AQI between 101 and 276 – Voluntary but strongly encouraged N95 filtering facepiece respirators will be provided to employees working outdoors to wear on a voluntary basis. Employees must review information regarding respirator use, care, and limitations before voluntarily wearing respirators under these conditions.
- 3.3.4. AQI 277 and above – Respirator use required use of an N95 filtering facepiece respirator is required.
- 3.3.5. AQI greater than 849 – ***NIOSH***-approved respirator required for ***essential personnel***. Essential personnel must comply with full respiratory protection standards, including fit-testing, training, and medical clearance. Supervisors must support these processes and ensure that no one is asked to work in unsafe conditions.:
 - 3.3.5.1. Medically cleared for tight-fitting respirator use;
 - 3.3.5.2. Trained on using a tight-fitting respirator; and
 - 3.3.5.3. Fit-Tested for the specific tight-fitting respirator they will be using.

3.4. Suspending Operations:

- 3.4.1. If AQI levels exceed 849, all non-essential outdoor activities must stop (except for authorized respirator users), and employees must remain indoors with doors and windows closed.
- 3.4.2. The City Manager will determine whether to close facilities and will communicate decisions to employees.

4. **Training**

4.1. All affected employees and supervisors of affected employees must receive training on the following topics:

- 4.1.1. The symptoms of wildfire smoke exposure.
- 4.1.2. Potential acute and chronic health effects from wildfire smoke exposure.
- 4.1.3. The right to report health issues without retaliation or stigma, and the City's commitment to investigating and addressing concerns promptly.
- 4.1.4. How to obtain current average and forecasted AQI for the work location.
- 4.1.5. The importance, limitations, and benefits of using a filtering facepiece respirator.
- 4.1.6. Procedures to protect employees from wildfire smoke, including how to don, doff, and wear respirators.

- 4.1.7. Review of job tasks that may expose employees to wildfire smoke.
- 4.1.8. Procedures to follow when employees report or exhibit related health symptoms.
- 4.1.9. How to operate and interpret results from any PM2.5 monitoring device if used.
- 4.1.10. How employees will receive timely, clear, and actionable communication from leadership regarding wildfire smoke exposure risks and response steps.
- 4.2. Leadership will document training and promote continuous improvement through feedback and lessons learned from prior smoke events.

DEFINITIONS:

1. ***“Air Quality Index (AQI)”*** is the method used by the U.S. Environmental Protection Agency (U.S. EPA) to report air quality on a real-time basis. Current AQI is also referred to as the “NowCast,” and represents data collected over time periods of varying length in order to reflect present conditions as accurately as possible. The AQI is divided into six categories shown in the table below.

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0 - 50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51 - 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 - 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151 - 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 - 300	Health alert: everyone may experience more serious health effects.
Hazardous	> 300	Health warning of emergency conditions. The entire population is more likely to be affected.

“Essential Personnel” includes employees designated as critical to emergency response and continuity of operations. Supervisors must balance mission needs with employee well-being when assigning duties during wildfire smoke events.

2. **“NIOSH”** is the National Institute for Occupational Safety and Health of the U.S. Centers for Disease Control and Prevention. NIOSH tests and approves respirators for use in the workplace.
3. **“PM2.5”** is solid particles and liquid droplets suspended in air, known as particulate matter, with a diameter of 2.5 micrometers or smaller. This makes up a part of the AQI and is the main health risk during a Wildfire event. See the table below.

PM2.5 in Micrograms per Cubic Meter (µg/m3)	Oregon Air Quality Advisory (DEQ)	<i>Air Quality Index (AQI)</i>
35.5µg/m3	101	101

4. **“Sensitive groups”** include individuals who may face elevated health risks from smoke exposure. The City encourages proactive communication and accommodation for individuals in this group to support inclusive and equitable health protections.
5. **“Wildfire Smoke”** refers to emissions from fires occurring in wildlands or adjacent developed areas.

RESOURCES:

1. [OAR 437-002-1081 – Protection from Wildfire Smoke Oregon](#)
2. [OAR 437-004-1041 – Respiratory Protection](#)
3. [DEQ Air Monitoring Page](#)
4. [EPA Air Monitoring Page](#)
5. [OSHA Wildfire Smoke Page](#)