**Section 300 – Employee Health & Safety**

|  |
| --- |
| Health and Wellness Promotion – 300.00  |
| S.O.P # 300.07 | **Protection From Wildfires Smoke Plan** | Page: 1 of 8 |
| EFFECTIVE: 9/13/2021 | Authorized: Board of Directors |
| REVISED: |  |

**300.07.01 Purpose**

This safety plan provides general guidance to ensure safe working conditions are provided and members are aware of the hazards associated with wildfire smoke. OR-OSHA and the District recognize that smoke exposures represent particularly dynamic situations. The District will address such hazards based on the information available to us through the exercise of reasonable diligence. Lastly, this plan addresses how the District will implement established requirements in the OR-OSHA Protection From Wildfire Smoke rule 437-002-1080.

**300.07.02 Compliance**

The District recognizes working in environments where particulate matter 2.5 (PM2.5) is present, particularly wildfire smoke, occurs regularly during the summer months. The rule allows for an exemption for wildland firefighting operations; however, all other activities for operational and support staff members are subject to the rule (defined in Standards below). We are committed to providing the necessary equipment, technology, and training to all members so they can safely perform their daily duties; therefore, each member is subject to compliance with this plan.

**300.07.03 Standards**

These standards will be in place when the ambient air concentration for PM2.5 is at or above 35.5 ug/m³ (Air Quality Index 101). The action levels identified in this rule are AQI 101, AQI 201, and AQI 501; each is described in detail within this plan.

Communication

All employees are responsible to check the air quality prior to beginning of shift and as conditions change, and communicate finds to other employees on shift. The following sources (in order of preference) will be used for air monitoring information:

1. U.S. EPA AirNow website ([www.airnow.gov](http://www.airnow.gov))
2. Oregon Department of Environmental Quality’s website (<https://oraqi.deq.state.or.us/home/map>)
3. Utilize the 5-3-1 Visibility Chart to estimate the current air quality and corresponding AQI risk category. Example of the chart is available in Appendix 2.

Before employees are exposed to concentrations in ambient air for PM2.5 is at or above 35.5ug/m³ (Air Quality Index - AQI 101), the employer must develop and implement a system to communicate wildfire smoke hazards that must include the following:

1. Notifying employees when work location ambient air concentration for PM2.5 is at or above 35.5 ug/m³ (AQI 101);
2. Notifying employees when work location ambient air concentration for PM2.5 is at or above 150 ug/m³ (AQI 201);
3. Notifying employees when work location ambient air concentration for PM2.5 is at or above 500.4 ug/m³ (AQI 501);
4. Notifying employees when ambient air concentration for PM2.5 drops below levels requiring protective measures; and
5. Enabling and encouraging employees to inform the employer if any of the following occurs:
	1. When air quality improves and worsens; and
	2. Severe health symptoms that may be the result of wildfire smoke exposure such as asthma attacks, difficulty breathing, and chest pain.

**300.07.04 Exposure Controls**

Voluntary Use of Respirators (AQI 101)

The District encourages voluntary use of respirators for all members when the PM2.5 is at or above AQI 101. This District will maintain a sufficient number and sizes of NIOSH-approved respirators that effectively protect wearers from PM2.5. These respirators will be provided at no cost to members and will be readily available upon request.

The District will use engineering or administrative controls to reduce employee PM2.5 exposure to less than AQI 201 whenever feasible. Engineering controls include providing enclosed buildings, structures, or vehicles where the air is adequately filtered.

1. Apparatus bay doors must remain closed when AQI 201 or higher is present to meet this rule. If they are open, members must wear a respirator in the ambulance bay.
2. Vehicles may be acceptable for short-term refuge when AQI 201 or higher is present.

Administrative controls include relocating training and events to an indoor location or rescheduling these training activities or events to a time when ambient air concentration is less than AQI 201

Required Use of Respirators (AQI 201)

Whenever exposure is at or above AQI 201, even after the application of engineering and administrative controls, the District will ensure that members wear NIOSH-approved respirators (N-95 or KN-95 masks). Use of these respirators by all members are required when:

1. Intermittent exposure will exceed 15 minutes in a one (1) hour period; or
2. Short duration exposure of less than two (2) hours in a single 24-hour period.
	1. Examples may include but are not limited to:
		1. Training
		2. Public education events, etc.

*NOTE: For the 2021 fire season, KN-95’s previously approved under the FDA’s Emergency Use Authorization can be used to substitute for NIOSH-approved filtering facepiece respirators for exposures under AQI 501.*

For filtering facepiece respirators used exclusively to protect members from wildfire smoke, the District does not need to implement a full Respiratory Protection Program provided that the Wildfire Smoke Respiratory Protections Program described in the Appendix 1 to this standards is followed. The District will implement the context of Appendix for members who use NIOSH-approved N-95 masks for protection from wildfire smoke; shaving and FIT testing is not required for AQI levels between 201 – 500.

Requiring Use of Respirators (AQI 501)

Whenever exposure is at or above AQI 501, this level of protection is intended for use of Self-Contained Breathing Apparatus (SCBA’s). Members of the District are not required to wear SCBA’s in their normal course of work; therefore, the District will evaluate activities that may expose members to levels at or above AQI 501 and coordinate with Jefferson County Fire District #1 in operations in the field.

**300.07.05 Exemptions From This Rule**

OR-OSHA has defined certain workplaces and/or operations that are exempt from portions of this rule. These exemptions are specific and only apply to the following activities.

1. Enclosed buildings and structures in which the air is filtered by a mechanical ventilation

system and the District ensures that windows, doors, bays, and other exterior openings

are kept closed, except when it is necessary to open doors to enter or exit.

1. 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.

The following specific workplaces and operations are subject to information and training requirements under Education and Training of this plan when feasible. Additionally, some members are not subject to the requirements of the Communications and Exposure Controls sections of this plan as identified below.

1. Members engaged in evacuation, rescue, utilities, communications, and medical operations that are directly involved in or aiding emergency operations or firefighting operations. This ONLY applies to incidents involving wildland firefighting operations.

The intent is to allow responders and support the ability to function in a high-demand and stressful (physical and mental) environment without the impedance of respiratory protection. If a member finds themselves in a position where respiratory protection would be beneficial, don respiratory protection as needed.

It may be likely a greater hazard exists due to wearing respiratory protection, and in this case there is a narrow exception to the rule. Per OR-OSHA, a greater hazard is defined as the ability for the District to demonstrate that compliance with the requirements of the rule would expose a member to a hazard associated with a substantially more serious injury or illness, thereby providing a narrow exception to the rule to the degree that the hazard exists. Examples of greater risk may include but are not limited to:

1. Communications are negatively impacted
2. Wearing a respirator (N-95) will increase respiratory effort; humidity and heat loss from the respiratory tract is more difficult to endure
3. Increased heart rate and thermal stress
4. Obscuring the wearer’s field of vision

**300.07.06 Reporting Procedure**

In the event a member requires medical attention due to wildfire smoke exposure or illness initiate the following:

1. Activate the 911 system.
2. Provide patient care consistent with scope of practice and Standing Orders.
3. Notify a Duty Officer, if not already done.
4. Consider transport to the nearest hospital (dependent on severity of symptoms).
5. Continue to monitor and do not leave patient/member alone.
6. Complete a SAIF 801 form.

**300.07.07 Education and Training**

The District will provide training to all new members within 90 days or sooner, depending on the season, and current members annually. This training will be provided before members can reasonably anticipate working in ambient air concentration for PM2.5 at or above 35.5 ug/m3 (AQI 101). Topics to be covered in the training include:

1. Symptoms of wildfire smoke exposure, including:
	1. Eyes: burning sensations, redness, and tearing of the eyes caused by irritation and inflammation of the eyes that can temporarily impair one’s vision.
	2. Respiratory system: runny nose, sore throat, cough, difficulty breathing, sinus irritation, wheezing, shortness of breath.
	3. Fatigue, headache, irregular heartbeat, chest pain.
2. The potential health effects of wildfire smoke, including increased risk of health effects to sensitive groups.
3. The definition of sensitive groups as defined under Section 2 (Definitions) of the OAR.
4. The member’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.
5. The procedures the supervisor must follow if a member exhibits severe symptoms of wildfire smoke exposure, including appropriate emergency response procedures.
6. How members can obtain the current and forecasted ambient air concentration for PM2.5 and equivalent AQI level.
7. How to effectively operate and interpret any air quality monitoring device provided by the District to comply with these rules, for each member designated by the District to operate such devices.
8. The District’s methods to protect members from wildfire smoke.
9. The District’s communication system for wildfire smoke hazards covered under Section 4 (Communicating Hazards) of the OAR.
10. The importance, limitations, and benefits of using a filtering facepiece respirator when provided by the District, and how to properly put them on.

**300.07.08 Appendix 1 – Wildfire Smoke Rule**

Temporary Mandatory Workplace Guidance for THE USE OF FILTERING FACEPIECE RESPIRATORS TO ADDRESS WILDFIRE SMOKE

This appendix applies only to employees that require NIOSH-Approved filtering facepiece respirators, including N95, P95, and R95, to be used by their workers for protection exclusively for wildfire smoke exposures when workplace ambient air concentrations of PM2.5 is at or above 150.5 ug/m³ (AQI 201) but below PM2.5 500.4 ug/m³ (AQI 501).

*Note: For the 2021 wildfire season, KN-95s previously approved under the FDA’s Emergency Use Authorization can be used to substitute for NIOSH-approved filtering facepiece respirators for exposures under 500.4 ug/m3 (AQI 500).*

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 PM2.5 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 PM2.5 is at or above 150.5 ug/m3 (AQI 201) must develop either a respiratory protection program in accordance with the Respiratory Protection Standard (29 CFR 1910.134); or a Wildfire Smoke filtering facepiece respiratory protection program in accordance with the following requirements when workplace ambient air concentrations of PM2.5 are under 500.4 ug/m3 (AQI 501):

1. 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 (B) below.
2. Filtering facepiece respirator user seal check. Each employee who uses a filtering facepiece respirator must perform a user seal check to ensure that the respirator is properly sealed to the face is achieved 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 satisfactory if a slight positive pressure is being built up inside the facepiece without any evidence of outward leakage of air at the seal. Examples of evidence that it is leaking could be the feeling of air movement on your face along the seal of the facepiece, fogging of your glasses, or a lack of pressure being built up inside 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. To conduct a negative pressure user seal check, cover the filter surface with your hands as much as possible and then inhale. The facepiece should collapse on your face and you should not feel air passing between your face and the facepiece.

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.

**300.07.09 Appendix 2 – 5-3-1 Visibility Chart**

Distance can be a challenging to estimate. If you find yourself asking “how far away is that”, this may be the answer for you. Use the website below and you can utilize the map to find distances to landmarks that will then apply to the visibility chart below.

**5-3-1 Visibility Guide to Smoke and Air Quality**



No matter how far you can see, if you feel like you are having health effects from smoke exposure, take extra care to stay inside or get to an area with better air quality. You should also see your doctor or other health professional as needed.