

Health and Safety Section – Oregon OSHA

Introduction: This section is a paraphrase of Oregon OSHA’s Division 2, Subdivision L, and related rules. All checklist items are the result of an Oregon OSHA rule, there are a small number of best practices in this section. **This is not an exhaustive list of Oregon OSHA rules;** further research may be required to ensure compliance with Oregon OSHA (<https://osha.oregon.gov/>). Contact SDAO Risk Management for assistance.

General

- The district has an organizational statement that talks about the organization’s structure, the functions of the district, and the type, amount, and frequency of training.
- The district requires that a physician release any employee or volunteer with a known medical condition prior to engaging in fire suppression activities.
- The district requires that any employee or volunteer be evaluated annually to ensure they are physically capable to perform the job duties.
- The district has a current position description for each occupation that identifies physical capacities, minimum and special qualifications.
- The district requires that any employee who is required to wear a tight-fitting respirator (SCBA, N95) have a medical questionnaire evaluated by a licensed health care provider.
- The district requires that any employee who is required to wear a tight-fitting respirator (SCBA, N95) have a fit test performed prior to wearing one and annually thereafter.
- The district requires that any employee who is required to render medical assistance be given hepatitis B vaccine or allowed to decline the vaccine in writing prior to exposure.

Administrative

- The district has a safety committee or holds an all-hands safety meeting monthly.
- The district maintains meeting minutes for at least three years.
- The district posts the minutes in an area that all district members can read them.
- The district does quarterly facility inspections.
- The district investigates all incidents that could or have resulted in property damage or injury.
- The district records injuries and illnesses on an OSHA 300 log and 300A summary
- The district records all needle or medical sharps sticks on a sharp’s exposure log.
- The district has had an OSHA consultation within the past five years (recommendation only) or a visit by SDAO Risk Management within the past three years.

Education and Training

- The district has implemented a policy addressing appropriate training and education based on position.
- The district has provided appropriate training in the following areas:

- Interior structural firefighters meet NFPA 1001, Firefighter 1 or higher; or are firefighting trainees who are under the direct supervision of a NFPA Firefighter 1 or higher.
- Exterior only firefighters meet the minimum performance standards (student prerequisites) of NFPA 1001 (2013).
- The district ensures that all live fire training is conducted in accordance with NFPA 1403 (2012) or Appendix A of OAR 437-002-0182 and under the direction of the training officer or district representative.



Personal Protective Equipment

- The district has a current hazard assessment to determine what personal protective equipment (PPE) is necessary.
- The district requires that all employees have the proper protective equipment for known hazards.
- The district provides a turnout ensemble (helmet, hood, coat, pants, and boots) that meets the requirements of NFPA 1971 (**currently owned** -1991 edition; **purchased after 7/1/16** – 2013 edition).
- The district provides hand protection that meets the requirements of NFPA 1973 (**currently owned** - 1988 edition; **purchased after 7/1/16** – 2013 edition).
- The district provides eye and face protection that meet the requirements of ANSI Z87.1 (1998 edition).
- The district provides hearing protection that meets the requirements of 1910.95 for sound levels above 85 db.
- The district provides effective PPE for bloodborne pathogens (gloves, gowns, face, and eye protection).
- The district performs documented inspections of all PPE at least **monthly** (weekly is preferred).

Respiratory Protection Program

- The district provides NIOSH approved respiratory protection.
- The district's written program includes the identity of the person or position responsible for maintaining the program.

The district's written respiratory program includes statements on:

- Procedures for selecting respirators.
- Medical evaluations of employees.
- Fit testing procedures of employees.
- Procedures for using respirators in foreseeable conditions.
- Procedures and schedule for cleaning, disinfecting, storing, inspecting, repairing, discarding, and maintaining the respirators.
- Procedures for ensuring adequate air quality, quantity, and flow of breathing air for SCBAs or supplied air respirators (SARs).
- Procedures for training employees.
- Procedures for annual evaluation of the respiratory program.

Respirator Selection and Use

- If the district uses respirators other than SCBAs or SARs, evaluate the respiratory hazard to select the appropriate respirator (if the atmosphere is or could be IDLH then SCBAs or SARs are the only recommended respirators).
 - The district should evaluate:
 - Identity of respiratory hazard, a reasonable estimate of exposure, **and** chemical and physical state.
 - Relevant workplace and user factors that will affect performance and reliability.
 - A sufficient number of respirator models to allow for correct user fit.
- The district provides a PASS alarm for each SCBA in use that meets NFPA 1982 (**currently owned** - 1983 edition; **purchased after 7/1/16** – 2013 edition).
- The district takes air samples from the compressor at least every six months to be analyzed for grade D air (quarterly is industry practice).

Medical Questionnaire and Fit Testing

- The district requires the employee to fill out a medical questionnaire prior to using the respirator.
 - Frequency
 - Prior to use (required)
 - Any negative medical signs or symptoms related to the use of a respirator (required)
 - Health care professional, supervisor or program administrator requests the employee be re-evaluated (required)

- Observations made during a fit test or other programmatic event indicates the need for re-evaluation (required)
 - Changes in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee (required)
 - A reasonable time interval determined by the employer (i.e., annually, biannually, every 5 years) [**Best Practice Only**]
- The district receives the response from the licensed healthcare provider **prior** to allowing the employee to use the respirator or fit testing the employee.
- The district fit tests employees prior to respirator use, when there are facial changes, and **annually** thereafter.

Bloodborne Pathogens

The district has a written exposure control plan that addresses the following:

- How to determine occupational exposures.
 - Work practices and engineering controls to eliminate exposures.
 - How to determine the circumstances surrounding an exposure incident.
 - Procedures for post-exposure care.
 - Procedures for implementing the exposure control plan.
 - Procedures to review the plan annually.
- The district has a committee that reviews the medical sharps **annually** to make recommendations about safer devices.
- District management reviews and documents a response to the committee recommendations (not required to accept recommendations).
- The district has a sharps log to document incidents.

Emergency Response

The district has operational guidelines addressing the following:

- Emergency and non-emergency apparatus operation.
- Incident management system.
- Personnel accountability system that meets NFPA 1561, (2008).
- Rapid intervention team/crew.
- Rehab.
- All expected emergency responses (fire, EMS, technical rescues or HazMat).
- Staging of apparatus and/or personnel.
- Narcotics storage and usage during EMS responses.
- Mutual or auto-aid responses.



Hazardous Materials Response

- The district identifies non-residential hazardous materials storage locations.
- The district has a pre-plan for responding to these hazardous materials storage locations.

The response plan includes statements about:

- Pre-planning and coordination with outside parties.
- Personnel roles, lines of authority, training, and communication.
- Emergency recognition and prevention.
- Safe distances.
- Scene security and control.
- Evacuation procedures.
- Decontamination.
- Medical treatment and first aid.
- Personnel withdrawal procedures.
- After action critique.
- Personal protective equipment, emergency equipment, and response procedures.
- The role of the incident commander.

The incident commander is responsible for:

- Identifying the hazardous substance and condition.
- Implementing emergency operations.
- Ensuring effective personal protective equipment is selected and worn.
- Access is limited to the warm and hot zone.
- Effective decontamination procedures are implemented.

- A competent safety officer is designated.
- Only appropriately trained personnel are used.
- On-scene medical surveillance is provided for emergency responders.

Apparatus Bays

- The district keeps the apparatus bay clear of obstructions, trip hazards, slick and greasy floors.
- The district knows that the air inside the building is not contaminated with exhaust gases from apparatus engines by monitoring the air.
- The district follows these best practices when possible:
 - Exhaust gases are controlled by local exhaust means.
 - Perform routine preventative maintenance on vehicle engines.
 - Idle times are reduced when indoors.
 - Vehicle exhaust is directed outdoors and away from interior openings.
 - Interior doorways are sealed to prevent exhaust gases from entering.
 - Turnouts are kept in a separate room away from exhaust gases.
 - Ice makers and drink dispensers are kept in an area away from exhaust fumes.

Apparatus

- All vehicles have roll-over-protective-structure (ROPS) if it does not have a cab.
- All vehicles have tailboards that do not project outside of the vehicle sides or fenders.
- All vehicles have an exhaust system that keeps the exhaust gases away from the occupants.
- All vehicles have the loaded weight and unloaded height posted where the driver can clearly see it.
- The district has written procedures and records for **monthly** apparatus checks **and** when the apparatus is returned to the station **after use**.
- The district takes apparatus or equipment out of service that is excessively worn, deteriorated or damaged until it is repaired.
- The district has annual testing done on all fire service equipment, including hoses, pumps, and ladders.

Apparatus Operation

- The district only allows adequately trained personnel to operate vehicles.
- Only personnel who have a valid license are allowed to operate a vehicle on public roadways.
- The district ensures that all equipment is effectively stored and/or secured on the vehicle before it moves.
- The district ensures that all firefighters are seat belted while the vehicle is moving.
- The district has a backing policy that requires spotters to be used when backing a vehicle.

Traffic Control

- The district uses vehicles with emergency lights to control the traffic flow at emergency scenes.

- After the emergency is stabilized, the district uses traffic control measures listed in the ODOT short-term traffic control manual.

Hose and Drill Towers

- All floor and wall openings over four feet from the ground are equipped with a standard guardrail.
- All elevated platforms are equipped with toe boards when tools or other objects that could roll off are present.
- All fixed ladders in the hose-drying tower meet the requirements for fixed ladders.
- All ropes used to hoist hose in the tower have a safe breaking strength of at least three to one.
- The district has the hoist serviced and inspected annually.
- Tie off points are inspected according to the manufacturer or under the direction of a registered professional engineer.
- Written inspection records are maintained for three years.

District Owned Confined Spaces - Where employees do not enter.

- The district has all confined spaces identified and evaluated even if the district does not enter them.
- The district has all confined spaces posted with signage reading, "Danger - Confined Space (or Permit Required Confined Space), Do Not Enter."
- The district has effective means of keeping employees from entering the confined space.
- The district informs contractors of the presence of the confined space and its hazards.
- If the district enters its own confined spaces, the district has a full confined space program.

Emergency Service Confined Space Rescue

- If the district is designated as an employer's confined space rescue service, the district has a written agreement with that employer.
- The district trains responders for confined space rescues using NFPA or other national standards.
- The district ensures that everyone responding to confined space emergencies is certified to NFPA Firefighter 1 level.

Emergency Service Confined Space Rescue - Training

- The district provides training prior to entry into a confined space or any time there are changes in duties or equipment.

The district's confined space training plan includes discussions about:

- Inherent confined space hazards
- Safe performance in a confined space
- How to assess and secure the space
- How to use calibrated direct reading instruments

- How to effectively ventilate the confined space
- How to use the personal protective equipment
- How to use the confined space specific equipment
- When and how to exit the confined space
- The district's confined space training plan includes practical application of the learned skills including a simulated rescue every 12 months.
- The district documents the training with certification that includes the training topic, employee's name, date of training and signature of the trainer.

Emergency Service Confined Space Rescue - Standard Operating Guideline

The districts' operating guideline includes:

- The use of an incident management system that meets NFPA 1561.

An assessment of the confined space incident:

- Classification as a rescue or body recovery
- Physical Hazards
- Atmospheric Hazards
- Ventilation

Emergency Service Confined Space Rescue - Equipment

- The district provides appropriate equipment for entry into a confined space.
- The district provides appropriate equipment for non-entry rescue from a confined space.
- The district provides appropriate personal protective equipment for entry into a confined space.

Emergency Service Equipment Testing

- The district performs annual testing of all emergency equipment according to national standards (pumps, hose, ladders, etc.).
- The district performs annual testing of aerial devices in accordance with NFPA 1911, 2007 edition, or by a registered professional engineer, the apparatus manufacturer, or an American Welding Society certified welding inspector. Any repairs are recertified by the same.
- The testing is documented, and records are maintained according to public records law.

District Facilities - General

- The district keeps all areas clear of trip hazards.
- The district keeps all flammable liquids inside an approved flammable liquid cabinet or room.
- The district maintains proper guards on all power equipment (such as grinders or saws).
- The district maintains proper guards on all equipment with moving parts (such as belts, pulleys, or chains).
- The district inspects and maintains apparatus bay doors using the manufacturer's recommendations.

- Hand tools are inspected to make sure they are in good condition.
- The district inspects cranes, hoists, jacks, or lifts annually.
- The district inspects rigging prior to each use.
- The district has the weight rating posted for any mezzanine areas used for storage.

Walking / Working Surfaces

- The district has a documented inspection process of the facility at least monthly or as often as necessary to keep the workplace safe.

There is effective protection to keep people from falling:

- Loading docks more than **four feet**
- Stairs more than **four risers**
- Catwalks, platforms, raised walkways more than **four feet**
- Roofs or other surfaces not normally used for walking/working more than **ten feet**
- Slippery floors** due to spills of liquids/materials or weather

Electrical

- The district inspects all electrical cords for damage.
- The district ensures that all cords are kept out of the way to avoid trips and falls.
- Extension cords are used only for temporary wiring.
- The district keeps a minimum of **36 inches** of clear space around electrical panels.
- The district keeps electrical rooms free of storage.
- The district hires qualified electricians to install wiring or make repairs.

Heat Illness Prevention

- The district has determined when emergency operations 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 have ceased, and the full provisions of this rule are in effect.**
- The district has implemented a written Heat Illness Prevention (HIP) Program that addresses the following items:
 - Identifies an Individual or position who is responsible for the program.
 - How employees will be trained on the hazards of heat exposure and the necessary steps to prevent heat-related illnesses.
 - How to recognize the symptoms of dehydration, and how to respond to suspected heat-related illnesses in others.
 - How sufficient amounts of cool, potable water in work areas will be provided for staff.

- How employees will be provided frequent opportunities and encouragement to stay hydrated by drinking water.
- How employees will be provided sufficient space to rest in a shaded area or cool climate-controlled area, and where heat-affected employees may cool off and recover when signs and symptoms of heat-related illnesses are recognized.
- How the employer will implement the heat illness prevention rest break schedule when necessary to keep employees safe.
- How the employer will implement heat acclimatization procedures for new employees or employees returning to work from extended absences of seven or more days.
- The district establishes and maintains an adequate number of shade areas when the heat index is above 80 degrees Fahrenheit.
 - Shade areas are open on at least 3 sides or have mechanical ventilation
 - Shade areas are large enough to cover employees seated in a normal posture
 - Employees must be able to remove PPE in these areas
 - Shade areas are as close as practical to work areas
 - If natural vegetation is used as shade the shadow must be sufficient to protect employees
 - Vehicles that have working air conditioning are considered shade
- The district provides ready access to sufficient drinking water at no cost to the employees when the heat index is above 80 degrees Fahrenheit.
 - The water must be cool or cold (Potable water that is suitable to drink and that is cool (66 °F – 77 °F) or cold (35 °F – 65 °F).
 - Employees must have at least enough water to consume 32 oz. per hour. This may be restocked throughout the day if supplies are needed.
 - Employees must be allowed time to drink water.
- The district has adopted the following high heat practices when staff is exposed to a heat index of 90 degrees Fahrenheit or greater.
 - Effective two-way communication is provided to all staff members.
 - Regular contact with staff working alone, a mandatory buddy system, or other effective means of observation and communication to promptly identify staff suspected of experiencing heat-related illness.
 - Designate and equip an adequate number of staff who are authorized to call for emergency medical services.
 - When staff work in structures without mechanical ventilation the district measures the current indoor heat index by measuring the temperature and humidity inside the structure or assumes the outdoor heat index is the same as indoor.

- Develop and implement a written heat illness prevention break schedule that meets the requirements of [OAR 437-002-0156\(5\)\(e\)](#).
- The district has determined how exposure to excessive heat is addressed in their emergency medical plan. [OAR 437-002-0161\(4\)](#)
- The district has developed and implemented a written plan addressing acclimatization of staff and volunteers.
- The district provides **annual** heat illness prevention training to all staff, including volunteers.
- The district keeps the most recent **annual** training record that includes:
 - Name/identifier of staff member trained
 - Date of the training
 - Name of the person who conducted the training
- The district's training covers the following topics:
 - Environmental and personal risk factors, such as health conditions, clothing worn and/or PPE usage.
 - The employer's procedures for complying with the requirements of this standard.
 - The importance of frequent consumption of small quantities of water, up to 32 ounces per hour.
 - The concept, importance, and methods of the district's acclimatization plan found in section (8).
 - The different types of heat illness, the common signs, and symptoms of heat illness, and the appropriate first aid and emergency response to the different types of heat illness.
 - The importance for staff to immediately report to the employer, directly or through the employee's supervisor, signs and symptoms of heat illness in themselves or in others.

Wildfire Smoke

- The district has determined when emergency operations directly involved in the protection of life or property, public safety power shutoffs, or restoration of essential services, such as evacuation, rescue, medical, wildland firefighting and associated support activities such as fire camp services and fire management, structural firefighting, law enforcement, utilities, and communications have ceased, and the full provisions of this rule are in effect.**
- The district has developed guidance for all staff related to the procedures for assessment, training, and protective measures for wildfire smoke.
- The district monitors wildfire smoke (PM2.5) using a publicly accepted method.
- The district provides **annual** training to all staff, including volunteers who may be exposed to an AQI of 101 or greater or PM2.5 at or above 35.5 µg/m³. This training includes the following topics:
 - Symptoms of wildfire smoke exposure.
 - Potential acute and chronic health effects.

- Each employee's right to report health related issues due to exposure and how to obtain medical treatment.
- How employees can access average and forecasts for AQI or concentrations of PM2.5.
- Training on the important, limitations, and benefits of using a filtering facepiece respirator (FFR).
- Training on how to use and maintain an FFR.
- How the district is protecting staff from wildfire smoke exposure, including how to obtain an FFR.
- A review of any job tasks that expose the wearer of FFRs to greater hazards than wildfire smoke and why staff should not wear the FFR during those tasks.
- Procedures for supervisors to follow when a report or observation of adverse health effects are seen.
- How to monitor PM2.5 in the workplace and how that will be communicated to staff
- The district keeps the most recent **annual** training record that includes:
 - Name/identifier of staff member trained
 - Date of the training
 - Name of the person who conducted the training
- The district has implemented a two-way communication method to provide information about the current ambient air concentration of PM2.5 or AQI from wildfire smoke that includes:
 - A means to notify staff of changes in the air quality that would change the needed exposure control measures.
 - A means for staff to notify supervisors of changes in air quality, availability of exposure control measures, and symptoms of exposure that may necessitate medical care.
- The district has implemented exposure control methods using engineering or administrative controls to reduce the level of individual's wildfire smoke exposure below an AQI of 101 or PM2.5 of 35.5 µg/m³ unless those controls are "functionally impossible or would prevent the completion of work."
 - **Oregon OSHA defines appropriate engineering controls** as items that may include, but are not limited to, temporarily relocating outdoor workers to available indoor areas or vehicles where the air is adequately filtered or using portable air purifiers equipped with HEPA filters (or similar high-efficiency air filters) that are sufficient in number and performance for the size of the enclosed area where used.
 - **Oregon OSHA defines appropriate administrative controls** as items that may include, but are not limited to, temporarily relocating outdoor work operations to another outdoor location with better air quality when work permits and changing employee work schedules to when better air quality is forecasted.

- If elastomeric respirators are used to reduce employee exposure to wildfire smoke at any PM2.5 concentration, employers must comply with all applicable requirements under of the Respiratory Protection Standard – 29 CFR 1910.134.
- The district provides FFRs for voluntary use when the levels of wildfire smoke PM2.5 is at or above 35.5 µg/m3 but less than PM2.5 is at or above 200.9 µg/m3 or an AQI of 101 but less than 251.
 - The district maintains an adequate supply of FFRs in an area that is readily accessible to all staff or is distributed directly to staff.
 - The FFRs are stored in a manner so that they do not become a health hazard to the users.
- The district provides and requires use of FFRs when staff are exposed to levels of wildfire smoke PM2.5 is at or above 200.9 µg/m3 but less than 500.4 µg/m3 or an AQI of 251 but less than 501.
 - Use the Wildfire Smoke Respiratory Protection Program as described in Appendix A of this standard in lieu of conducting medical evaluations and fit testing, which are otherwise required under the Respiratory Protection Standard – 29 CFR 1910.134
- The district requires the use of respirators in accordance with the Respiratory Protection Standard – 29 CFR 1910.134. Whenever employee exposure to wildfire smoke PM2.5 is at or above 500.4 µg/m3 (AQI 501).