



# Confined Space Safety Program

ENVIRONMENTAL HEALTH & SAFETY



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## Confined Space Safety Program

### A. INTRODUCTION AND PURPOSE

This written program is intended to describe the University of Oregon's (UO) Confined Space Entry Program as required by the Oregon Occupational Safety and Health Administration (OR-OSHA) rules Subdivision J, 1910.146. This plan will serve as the required written Confined Space Program for the University of Oregon. An addendum to this written program includes a list of locations of identified Confined Spaces.

A safe and successful Confined Space Entry requires preplanning. Preplanning includes identifying anticipated hazards inside the Confined Spaces, selecting proper equipment to control the hazards, providing good documentation on the necessary controls via the written Permit System, providing appropriate training for everyone involved in the Entry, and rapidly responding to emergency situations.

Environment Health and Safety (EHS) consults with Departments and Supervisors to look at feasible precautions and required safeguards to prevent exposures to toxic gases, oxygen deficiency, flammable atmospheres, and accidents related to entering Confined Spaces. By identifying the hazards and providing the appropriate controls, a Confined Space can become a safe and routine part of Employees' everyday responsibilities.

### B. POLICY AND SCOPE

The following Program will apply to any UO Employee, Student, and/or Contractor employee that may enter into a space identified as a Confined Space. Contractors must have a Confined Space program at least equivalent to this Program and in accordance to applicable OR-OSHA related codes.

This written Confined Space Program will be available on the UO web to any UO Departments with Employees and/or Students, and Contractors prior to their entry into any Confined Spaces.

Before any Employee becomes an Entrant or Attendant/Rescuer connected with Confined Spaces, they shall be trained by the UO EHS in their specific duties and familiar with Confined Space Entry procedures, conducting pre- and continual atmosphere testing, hazard recognition, and evaluation and control of suspected or known hazards associated within a Confined Space, etc.

### C. RESPONSIBILITIES

1. **Department** – Departments will be responsible for:
  - a. Carrying out the Confined Space Entry Program elements in accordance with this Written Program and relevant OR-OSHA Confined Space codes.
  - b. For funding Program expenses including but not limited to Employee training and Attendant/Rescuer equipment expenses.



- c. Keeping EHS informed of new Employees who will need required training and requesting necessary retraining.
  - d. Enforcing compliance with the Confined Space Permit System and notifying EHS of infractions of the Confined Space Program so it can be evaluated to help prevent reoccurrence.
  - e. Notifying EHS upon discovery or creation of any new Confined Spaces.
  - f. Those in the Department overseeing Contractors with their Subcontractors to consult and remind them that they are to follow the Contractor Responsibilities and the Contractors Section “K” of this Confined Space Safety Program, along with any other OR-OSHA code requirements.
2. **Environmental Health and Safety (EHS)** – EHS will be responsible for:
- a. Administering and managing the Confined Space Entry Program.
  - b. Assisting Departments in evaluating their compliance with the Confined Space Entry Program.
  - c. As notified by Entry Supervisors for the need, conduct training for Employees to be Authorized Attendant/Rescuers, and Authorized Entrants.
  - d. Notifying Departments/Supervisors of incidents during implementation of the UO Confined Space Program by UO Employees, Contractors, and Subcontractors, etc.
  - e. Maintaining general Confined Space training records.
  - f. Designating Confined Space Authorizers.
  - g. Maintaining the master list of Confined Spaces, Authorized Entrants, and Authorized Attendant/Rescuers. .
  - h. When notified of the intention to enter a Confined Space by a Contractor, EHS will follow related responsibilities in the Contractors Section “K” of this Confined Space Safety Program.
  - i. Soliciting input from users, through their respective Supervisors, during the annual review process.
  - j. Maintaining SCBA equipment.
3. **Campus Operations And Other Departments Working in Confined Spaces** – Those Departments working in Confined Spaces will be responsible:
- a. To provide Authorized Attendant/Rescuers where required for Permit-Required Confined Space Entries at the expense of the Department that is requesting the entry if there is a cost involved.
  - b. To provide Authorized Entrants and Attendant/Rescuers for the Confined Space work detail who have been trained by UO EHS.



- c. Will include purchasing and maintaining necessary equipment to perform retrieval operations (with the exception of SCBA that will be maintained by EHS).
4. **Supervisor** – Supervisors involved with Confined Space Entry will be responsible for:
    - a. Identifying Employees who will enter defined Confined Spaces and notifying EHS for any need of the applicable training for Entrant or Attendant/Rescuer.
    - b. Maintaining Employee job specific Confined Space training records.
    - c. Assuring Employees are aware of and following this Written Program.
    - d. Be responsible for Employees' adherence to procedures that all operations remain consistent with the terms of the Entry Permit, and that Entry conditions remain acceptable throughout the process.
    - e. Assessing hazards and determining if acceptable Entry conditions are present prior to Entry while taking into account the activities the Entrant is going to be doing.
    - f. Immediately notifying EHS of any incidents that occur in connection with any Confined Space Entry.
    - g. Knowing the hazards that Entrants may be faced with during the Confined Space Entry.
    - h. Providing information to Entrants and Attendant/Rescuers regarding the mode, symptoms, and consequences of exposures to hazards in the Space to be entered.
    - i. Verify that the Permit, including all required provisions, has been completed prior to Entry.
    - j. Terminate the Entry and cancel the Permit if any of the required provisions of the Permit are not met or if additional hazards which affect the safety of the Entrants become apparent.
    - k. Verify the designated Rescue equipment is available onsite as needed for the Entry to respond to an emergency.
    - l. Enforce the removal of unauthorized people who enter or attempt to enter the Confined Space.
    - m. Whenever possible give the EHS Authorizer a 24-hour notice regarding the plan to enter a specific Confined Space and job duties to be performed. This request is so the Permit paperwork can be started and completed timely. Understandably there are emergencies and other instances that much advanced notice is not practical.
  5. **Contractor** – Contractors involved with Confined Space Entry will be responsible for:
    - a. Following the Contractor's section of the UO Confined Space Safety Program.
    - b. When is expected to perform work in a UO Confined Space, the Contractor will also follow all required applicable OR-OSHA Confined Space codes.
    - c. Having their own Confined Space Program and enter UO Confined Spaces under their own Permit system.
    - d. Upon request Contractors will be required to provide a copy of their Confined Space Program to UO EHS.
    - e. Prior to entry, informing EHS which space they plan to enter to do work and will give a copy of their Permit to EHS for recordkeeping purposes so EHS can inform them of suspected or known hazards for that space.



- f. Posting a copy of the Permit at the entrance while working in that Confined Space in accordance to OR-OSHA requirements.
- g. If a Contractor is going to enter any of the Confined Space Utility Tunnel System, the Contractor is to follow all procedures outlined in the supplemental Utility Tunnel Safety Program and applicable tunnel related OR-OSHA Confined Space codes.
- h. Fulfilling the Hazard Communication Program requirements by:
  - i. Having Safety Data Sheets on site for all hazardous chemicals that fall within the scope of the Hazard Communication Rules.
  - ii. Mitigating possible health and physical hazards that might be created by bring the chemicals into the Confined Space.
  - iii. Providing a hazardous chemical list and copies of the Safety Data Sheets for these chemicals if requested by EHS.
  - iv. Removing any chemicals they bring on site when they are no longer needed.

#### D. DEFINITIONS

1. **"Acceptable Entry Conditions"** – means conditions that must exist in a Permit-Required Confined Space to allow Entry and to ensure that employees involved with the PRCS entry can safely enter into and work within the space.
2. **"Authorized Attendant/Rescuer"** – means an individual stationed outside the Permit-Required Confined Space that is trained as required by this standard and who monitors the Authorized Entrants inside the Permit-Required confined space. The Authorized Attendant/Rescuer is also responsible to ensure that conditions required on the permit are met prior to Entry, oversee Entry operations, terminating Entry, and returning Permit to the Authorizer for debriefing and Permit termination. The Authorized Attendant/Rescuer will remain stationed outside the PRCS or as required by a non-PRCS during the Entry and remain there until work is completed or relieved by another Authorized Attendant/Rescuer.
3. **"Authorized Entrant"** – means an employee who is authorized by the employer and has received appropriate training to enter a Confined Space.
4. **"Configuration"** – means the internal shape or size of a Space. Be aware of inwardly converging walls or floors, which slope downward and taper to a smaller cross section.
5. **"Contractor"** – means an outside company or individual as a general contractor or subcontractor hired to do different kinds of new, repair, and/or maintenance work on the UO campus.
6. **"Confined Space"** – means any Space having a limited way of egress which is subject to the accumulation of toxic or flammable contaminants or an oxygen deficient atmosphere, has adequate size and configuration for employee Entry, and is not designed for continuous employee occupancy. Confined Spaces include, but are not limited to, storage tanks, process vessels, silo, bins, boilers, ventilation or exhaust ducts, septic tanks, underground utility vaults,



tunnels, pipelines, etc., and open top spaces more than 4 feet in depth, such as pits, tubes, vaults, or vessels.

7. **“Designated Entry Authorizer”** – means a person who has been designated by EHS to authorize Entry into a Confined Space with the issuance of a Permit or Information Sheet. This person has received training as both an Authorized Entrant and Attendant/Rescuer.
8. **“Emergency”** – means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the Permit Space that could endanger Entrants.
9. **“Energy Hazards”** – means energy hazards involve contact with electrical equipment, steam or other sources of heat inside the Confined Space. This type of equipment can include shafts, augers, mixers or impellers.
10. **“Engulfment”** – means the surrounding and effective capture of a person by a liquid or finely divided solid substance that can be aspirated to cause death by filling or plugging the respirator system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
11. **“Entry”** – means the act by which a person passes through an opening into a Confined Space and includes ensuing work activities in that space. The Entrant is considered to have entered as soon as any part of the Entrant’s body breaks the plane of an opening into the Space.
12. **“Entry Permit”** – means the document placed at the opening to a Confined Space outlining location, equipment monitor readings, Entrant(s) entering, Attendant, times and date of operation, type of work going on in the Confined Space, etc.
13. **“Entry Supervisor”** – means an Entrant’s Supervisor who for the purposes of an entry into a PRCS or non-PRCS, will serve as the person responsible for determining if acceptable entry conditions are present prior to entry while taking into account the activities the Entrant is going to be doing, oversee Entry operations as needed, and is in compliance with the Permit and Information Sheet documents.
14. **“Flammable (EXPLOSIVE) Atmosphere or Hazards”** – means flammable or explosive atmosphere contains gases, vapors or dusts in concentrations, greater than 10% of the LEL, which is high enough to ignite or explode. Common flammable atmospheres include methane gas, solvent vapors from tank residues, or combustible dusts such as grain dusts, flour, or metallic paint pigments.
15. **“Hazard Communication Program”** – means the Program to improve the level of information provided to Employees and others regarding the chemicals that they may encounter and handle during the course and scope of their work that can be health and physical hazards.
16. **“Hazardous Atmosphere”** – means an atmosphere which exposes employees to a risk of death, incapacitation, injury or acute illness from one or more of the following causes:
  - a. A flammable gas, vapor or mist in excess of 10 percent of its lower flammable limit.





- b. An airborne combustible dust at a concentration that obscures vision at a distance of five feet or less.
  - c. An atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.
  - d. An atmospheric concentration of any substance for which a permissible exposure limit (PEL) exists and could result in employee exposure in excess of its permissible limits.
  - e. Any atmospheric condition recognized as immediately dangerous to life or health.
17. **“Hot Work Permit”** – means the written authorization to perform operations (riveting, welding, cutting, burning, heating, etc.) that could provide a source of ignition. The Hot Work Permit involves an additional Permitting procedure outside the Permit-Required Confined Space process. This additional Permitting is required to be obtained by UO and non-UO employees when these type of work activities are being performed anywhere on the UO Campus.
18. **“Immediately Dangerous To Life And Health”** – means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual’s ability to escape unaided from a Permit Space.
19. **“Information Sheet”** – means when a space is not a Permit-Required Confined Space there are different entry instructions to follow that are less stringent, but not any less important to follow.
20. **“Isolation”** – means the process by which a Permit-Required Confined Space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding, misaligning or removing sections of lines, pipes, or ducts, a double block and bleed system, Lockout/Tagout of all sources of energy, or blocking or disconnecting all mechanical linkages.
21. **“LEL”** – means Lower Flammable Limits (may also be seen as LEL or Lower Explosive Limit) of flammable liquids, gases and volatile solids.
22. **“Line Breaking”** – means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.
23. **“Non-Permit Confined Space”** – means a Confined Space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.
24. **“Other Hazards”** – means when an employee enters a Confined Space, they are subject to a wide variety of hazards which are unique to the Space or are magnified by the Confined Space. Other hazards can include falls due to loose rungs on fixed ladders in manholes, slippery surfaces do to liquids in tanks or sloping floors, noise exposure due to sound reflected off of walls within the Space, personal protective equipment that is used improperly, or the specific type of work being performed.
25. **“Oxygen Deficient Atmosphere”** – means an atmosphere that contains less than 19.5% oxygen by volume.



26. **“Oxygen Enriched Atmosphere”** – means an atmosphere containing more than 23.5 percent oxygen by volume.
27. **“Oxygen Hazards”** – means too much oxygen in the air increases the potential for normally non-flammable materials such as grease, oil, or clothing to catch fire at normal temperature or when exposed to sparks or flames. Atmospheres containing too little oxygen result in physical effects to workers in the space. According to the OR-OSHA Standard the following are defined as high and low oxygen levels: 23.5% & above High Oxygen Levels, 20.8% to 21% Normal Oxygen Levels for Air 19.5% and below Low Oxygen Levels
28. **“Permit-Required Confined Space Program”** – means UO’s overall program for controlling and protecting employees from Permit-Required Space hazards and for regulating employee Entry into Permit Spaces.
29. **“Permit-Required Confined Space or PRCS”** – means consisting of any or all of the following:
  - a. Is large enough and so configured that an Entrant can bodily enter and perform assigned work.
  - b. Has limited or restricted means for entry or exit (e.g. storage bins, vaults, pits).
  - c. Is not designed for continuous Entrant occupancy **and** has one or more of the following characteristics:
    - i. Contains or has a known potential to contain a hazardous atmosphere.
    - ii. Contains a material with the potential for engulfment of an Entrant.
    - iii. Has an internal configuration such that an Entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section.
  - d. Contains any other recognized serious safety or health hazard.
30. **“Permit System”** – means UO’s written procedure for preparing and issuing Permits for Entry and for returning the Permit Space to service following termination of Entry.
31. **“PPM”** – means parts per million of substances.
32. **“Prohibited Condition”** – means any condition in a Permit Space that is not allowed by the Permit during the period when Entry is authorized (cutting, burning, etc.).
33. **“Retrieval System”** – means the equipment (including a retrieval line, full body harness, and a lifting device or anchor, etc.) used for non-Entry rescue of Entrants from Permit Spaces.
34. **“Safety Data Sheet” (SDS)** – means a Hazard Communication Program standardized Global Harmonizing System (GHS) written or printed material concerning a hazardous chemical specifics which is prepared by the chemical manufacturer.



35. **“Testing”** – means the process by which the hazards that may confront Entrants of a Permit Space are identified and evaluated. Testing includes specifying the tests that are to be performed in the Permit Space.
36. **“TLV”** – means Threshold Limit Value of toxic, corrosive or irritant contaminants.
37. **“Toxic Atmosphere or Hazards”** – means an atmosphere that has contained liquids, vapors, gases or solids of toxic, corrosive, irritant nature (or if the Confined Space has been fumigated) that have poisonous effects. Greater than TLV level of specific toxic substance. Some toxic atmospheres are immediately fatal (IDLH). Other materials are less severe causing dizziness or nausea. Common toxic hazards include hydrogen sulfide, sulfur dioxide and carbon monoxide.
38. **“Training – Confined Space”** – means the hazard awareness training provided by UO EHS for individuals involved with entering and/or working around UO Confined Spaces. The training also includes duties and responsibilities for Entrant, Attendant/Rescuer, Authorizer, and Supervisor Responsibilities Identifying Hazards in Confined Spaces.

#### E. GENERAL REQUIREMENTS

EHS will maintain an inventory of Confined Spaces. As any new Spaces are discovered or questioned as to whether the Space is a Permit-Required or Information Sheet Space, EHS will make the final determination. Information regarding specific Spaces is also available. For specific Space definitions, see **“Permit-Required Confined Space”** listed above.

Exposed employees will be informed of UO Confined Space by posted signs reading **“DANGER – CONFINED SPACE. AUTHORIZED ENTRY ONLY”**. In addition, Entrant and Attendant/Rescuer training will include advising employees of the UO Permit-Required Confined Spaces, how to identify them if there is no sign posted and that all electrical vaults are considered Permit-Required Confined Spaces.

#### F. PERMIT SYSTEM

A Permit-Required Confined Space or non-Permit Required Confined Space Information Sheet is required to be obtained from a designated Entry Authorizer prior to Entry into any Space designated as a Confined Space. The Tunnel System is a Confined Space, and a separate Confined Space Entry procedure has been developed for them.

Only an official UO Confined Space Permit/Information Sheet form will be used. The form will be fully filled out before the Confined Space will be entered with the original form to be maintained on the jobsite until the work shift and/or job is completed.

Upon termination of the Entry covered by the Permit or Information Sheet, and after all Entrants have exited the Confined Space, the individual authorizing the Entry will close the Permit or Information Sheet. If the Entrant Supervisor is not at the jobsite the Attendant/Rescuer will close, date, and sign the Permit or Information Sheet.



In cases where the Entry Entrant Supervisor will not be present for the duration of the Entry and there is no required Attendant/Rescuer, an Entry Coordinator among the Authorized Entrants will be designated by the Entrant Supervisor. In either case, the Entry Attendant/Rescuer or Supervisor will sign the form before the Entry begins, but not until all actions and conditions necessary for safe Entry into the Confined Space have been performed by the Entrant Supervisor.

EHS will serve as the record keeper for the program; closed Information Sheets or Permits are to be sent to EHS within 24 hours.

#### **G. TRAINING AND DUTIES OF AUTHORIZED ENTRANT**

Prior to being eligible to obtain an entry form, Authorized Entrants will be trained in the following areas and will be required by the University to perform the following duties. This training can consist of lecture, videotape program, and a safety awareness test.

1. Recognition of hazards which may be faced during an Entry. This includes the signs and symptoms of an exposure to a hazard as well as an understanding of the consequences of that exposure.
2. When Attendant/Rescuers are required, Authorized Entrants will maintain communication with and notify the Attendant/Rescuer in the event the Entrants initiate evacuation. If an Entrant in a PRCS becomes aware that the Attendant/Rescuer is not present they will immediately evacuate.
3. Authorized Entrants will be provided with and required to use appropriate personal protective equipment as designated by the Entry Authorizer, Supervisor and/or Attendant/Rescuer. In cases when respiratory protection is required, the Entrant must have evidence of current fit testing and training. Entrants will be instructed in the use of the designated personal protective equipment. Any external barriers needed to protect Entrants from external hazards will be explained and used.
4. Alert the Confined Space Attendant/Rescuer to order evacuation whenever:
  - a. Behavioral effects of hazard exposure are observed in any Entrant.
  - b. A prohibited condition is detected.
5. When an Attendant/Rescuer is required, exit the Space when one of following occurs:
  - a. Lockout/Tagout practices not followed.
  - b. When the Attendant/Rescuer orders an evacuation.
  - c. When an automatic alarm (e.g., gas meter, fire alarm) sounds.
  - d. When the Authorized Entrant perceives that they are in danger.
  - e. Note: The only exception to the Entrants following these directions would occur when the Entrant is unable physically to evacuate on their own power.



Additional training will be required for Entrants when there is a change in duties, there are Permit changes which results in hazards for which the Entrant has not previously been trained or whenever necessary.

#### **H. TRAINING AND DUTIES OF THE AUTHORIZED ATTENDANT/RESCUER**

Prior to being eligible to be an Authorized Attendant/Rescuer, employees will obtain training in the following areas. This training can consist of lecture, videotape program, and a safety awareness test.

1. Authorized Entrant training.
2. Authorized Attendant/Rescuer Training.
3. CPR/First Aid certification training.
4. Receive instruction on and demonstrate proficiency with the evacuation equipment.
5. Hazard recognition appropriate to the situations that Entrants may face in the Confined Space.
6. Behavioral actions that may indicate lack of oxygen.

Duties that will be the responsibility of Authorized Attendant/Rescuers include the following:

1. Maintain an accurate count of all Entrants in the Space.
2. Monitor activities inside and outside the Space to determine if it is safe for Entrants to remain in the Space.
3. Ensure Entrants are provided with and maintain an effective and continuous means of contact with the Attendant/Rescuer during the Entry. This may range from voice communication to radio communication. Other means may be used as deemed appropriate and effective.
4. All Attendant/Rescuers will have continuous radio communication capabilities with Campus Operations Control Room Operators as needed or required by this program. The Attendant/Rescuer will notify the dispatcher when an evacuation is ordered due to imminent safety hazards. In all ordered evacuations, the Authorizer will be notified immediately either through the Campus Operations Control Room Operator or UOPD dispatcher.
5. The Attendant/Rescuer will order immediate evacuation of Entrants from Confined Spaces in the following conditions:
  - a. When the Attendant/Rescuer observes a condition which is not allowed in the entry form.
  - b. The Attendant/Rescuer detects behavioral effects of hazard exposure.
  - c. The Attendant/Rescuer detects a situation outside the Space which could endanger the Entrants.
  - d. The Attendant/Rescuer detects an uncontrolled hazard within the Space.
  - e. The Attendant/Rescuer must leave the workstation.



6. The Attendant/Rescuer will take the following actions as necessary when an unauthorized person approaches or enters a Confined Space while Entry is underway:
  - a. Warn the unauthorized person to exit immediately if they have entered the Space.
  - b. Inform the Authorized Entrants, Entrant Supervisor, and the designated Authorizers if an unauthorized person entered the Space.
7. Remain outside of the Confined Space. Attendant/Rescuers shall not enter the Space to attempt a rescue of Entrants. Attendant/Rescuers that are part of the Rescue Team can only enter the Space as a Rescuer when at least one other member of the Rescue Team is at the scene and they are relinquished of their duties by another trained Authorized Attendant/Rescuer. At no time will the Entry site be left without a designated Attendant/Rescuer.

Normally, Attendant/Rescuers will only be allowed to monitor one Space at a time. Exceptions to monitoring more than one Space at a time must be approved by EHS Authorizer prior to the Entry.

Rescue equipment will be provided for Attendant/Rescuers to use without entering the Space.

#### **I. TRAINING AND DUTIES OF THE INDIVIDUAL AUTHORIZING AND/OR PERSON(S) IN CHARGE OF THE ENTRY**

Prior to being eligible to authorize an Entry, the designated Authorizer and Entrant Supervisor will obtain training in the following areas and perform the following duties. This training can consist of lecture, videotape program, and a safety awareness test.

1. Authorizers will be trained in the same procedures as Attendant/Rescuers and Entrants.
2. Entrant Supervisors will receive training on how to recognize hazards in Confined Spaces and as Attendant/Rescuers.
3. All Authorizers will use the official UO entry Permit or Information Sheet and determine that all pertinent information is noted on the form. They will determine that the necessary procedures, practices and equipment for safe Entry are noted on the form.
4. Supervisors of Entrants will identify contributing factors of job duties added to Confined Spaces and inform Entrants when hazards change an Information Sheet Confined Space to a Permit-Required Confined Space. This information is passed along to the Authorizer to make appropriate changes on the Permit.
5. Authorizers or Entrant Supervisors can determine at appropriate intervals that the entry operations remain consistent with the terms of the form and that acceptable entry conditions are present. If the Authorizer will not be present during the Entry, these duties will be transferred to the Entrant Supervisor or Attendant/Rescuer for non-PRCS and/or PRCS.
6. Authorizers, Entrant Supervisors, or Attendant/Rescuers will cancel the Entry authorization and terminate entry whenever acceptable entry conditions are not present. Entrant Supervisor or Attendant/Rescuer will take the necessary measures for concluding an Entry operation, such as closing off a Confined Space and closing the entry, once the work authorized has been completed. If the Authorizer will not be present during the entry, these duties will be transferred to the Entrant Supervisor and/or Attendant/Rescuer for non-PRCS and/or PRCS.



7. In the event of an ordered evacuation, the Authorizer and Entrant Supervisor will be required to respond to the Space immediately.
8. When an Attendant/Rescuer is required at a Confined Space, at a minimum the rescue tripod must be on site. Additional requirements will be listed if needed.

#### **J. RESCUE TEAM**

Employees of the University will be designated as Authorized Attendant/Rescuers. The Rescue Team will be made of these employees. Attendant/Rescuers are required to have current CPR/First Aid certified training or can be a CPR/First Aid instructor. The CPR/First Aid has to be completed and documented to EHS before the Attendant/Rescuer duties can be performed.

Rescue equipment will be provided for Attendant/Rescuers to use without entry into Confined Spaces. Rescue Team members will be trained in personal protective equipment, including appropriate respirator protection and equipment necessary for making rescues. The University will have the Rescue Team conduct a practice rescue at least annually. This practical rescue will take place in a space considered typical of Confined Spaces entered by workers. If a Rescue Team member misses two consecutive trainings they will be dropped from the team until they attend training again.

In addition to the in-house Rescue Team, calling 911 and radio contact with the UOPD dispatcher will allow notification of Eugene Fire Department (EFD) when the Attendant/Rescuer deems that emergency evacuation or medical assistance is necessary. In the event that EFD is called to the scene, it will be the duty of the Authorizer, if present or in their absence, the Attendant/Rescuer, to inform the responding emergency personnel that the Space is considered a Confined Space.

#### **K. CONTRACTORS**

The Contractor will be required to have their own Confined Space Program, enter UO Confined Spaces under their own Permit, and post a copy of the Permit at the entrance of the Confined Space in accordance to OR-OSHA requirements. Upon request Contractors will be required to provide a copy of their Confined Space Program to UO EHS.

When a Contractor is expected to perform work in a UO Confined Space, the Contractor will follow all applicable OR-OSHA required Confined Space codes and prior to entry inform EHS which space they plan to enter to do work. The Contractor will give a copy of their Permit to EHS for recordkeeping purposes.

EHS will then inform the Contractor if that Space is currently considered a Permit-Required Confined Space. The Contractor will be advised of the elements which make the Space a Permit-Required Confined Space and the suspected or currently known associated hazards. The Contractor will also be advised of currently known safety provisions that may be in place, including the UO Confined Space Written Program available on the EHS website.



In Confined Spaces where an Attendant/Rescuer is not required, the University may allow Contractors who are on campus to review sites for possible work (e.g., pre-bid) to enter a Confined Space with an UO Authorized Entrant under the University's Permit or Information Sheet. An explanation of the specific hazards in that area will be explained to the Contractor prior to the entry.

When both Contractor and University Employees will be making a joint Entry, the Entry will be coordinated by the University Authorizer with both parties having individual Entry Permits.

If a Contractor is going to enter any of the Confined Space Utility Tunnel System, the Contractor is to follow all procedures outlined in the supplemental Utility Tunnel Safety Program and applicable tunnel related OR-OSHA Confined Space codes.

#### **L. UTILITY TUNNEL SYSTEM**

The Utility Tunnel System is an identified Confined Space. In addition to this Confined Space Written Program, specific procedures and protocols for entering and working in the Utility Tunnels have been developed and are to be followed.

#### **M. BASIC CONFINED SPACE SCENARIO (EXAMPLE STEPS)**

The following outlines a minimum basic Confined Space scenario but it is not intended to be an all-inclusive outline because other factors might come into play concerning a specific Confined Space.

##### **1. PRE-ENTRY:**

- a. The Supervisor in charge of the Confined Space job shall assess possible hazards and determine if acceptable Entry conditions are present prior to Entry while taking into account the activities the Entrant is going to be doing, and then review the procedures for entering a Confined Space with each Entrant before accessing a Confined Space.
- b. The Supervisor or Attendant/Rescuer shall secure an Entry Permit before the start of the job and review it with the Authorizer.
- c. The Supervisor or the Attendant/Rescuer shall secure an atmosphere monitor and test the Confined Space before Entry at a minimum of the top, middle, and bottom. The person taking the readings shall document the readings on the Permit paperwork.
- d. All pre-work procedures shall be completed before work commences within the Confined Space. Pre-work procedures include, but are not limited to:
  - i. Proper ventilation.
  - ii. Adequate lighting.
  - iii. Rescue procedures.
  - iv. Communications.
  - v. Personal protective equipment.
  - vi. Lockout/Tagout of equipment.
  - vii. Atmosphere testing at top, middle, and bottom of space.
- e. All persons entering the Confined Space and the Attendant/Rescuer shall sign the Permit.





- f. The Permit shall be kept at the opening of the Confined Space while work is being performed.

## 2. WORKING IN THE CONFINED SPACE:

**NOTE: This Permit is to be posted at the point of access to the Confined Space.**

- a. When initial atmosphere monitoring is completed, the monitor shall stay with the Entrants working in the Confined Space. The monitor shall be kept in close proximity of Entrant, so the alarm can be heard.
- b. Work may commence at this time.
- c. If the alarm is activated, monitor malfunctions, ventilation discontinues or lighting, all Entrants shall evacuate the Confined Space until the problem is solved.
- d. After the problem has been solved, the atmosphere in the Confined Space shall be retested at top, middle and bottom of the space before any entry is made.

## 3. COMPLETION OF WORK:

- a. After completion of work or end of the work shift, all persons working in the Confined Space and the Attendant/Rescuer shall sign out on the permit.
- b. The Confined Space will be closed and secured as it was before the Entry began.
- c. The Permit shall be returned to the EHS office along with the atmosphere monitor.

**NOTE: Return completed and signed Permit to the EHS Office when the work is done at the end of the day.**

## N. PROGRAM REVIEW DOCUMENTATION

This Confined Space Safety Program is not all inclusive to what an Employee might need for job specific duties. Review of this program and the closed Permits will be conducted by EHS personnel annually. Program revisions will be made as necessary.

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**Contact:** Ben Carlson, Occupational Safety Officer

(541) 346-2867 | [bencar@uoregon.edu](mailto:bencar@uoregon.edu)