OES Confined Space/Permit Required Confined Space



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# OES Confined Space/Permit Required Confined Space Plan

## ****1.0 Purpose and Scope****

The purpose of this written plan is to define procedures that ensure the safety of employees and students into confined spaces to perform routine tasks associated with their job/project activities. This procedure has been designed to provide the minimum safety requirements.

The potential for safety and health hazards and limited means of egress represents a risk to people who work in confined spaces. This procedure addresses these hazards by Confined Space Entry Permits, atmospheric testing, personal protective equipment (PPE), rescue procedures and training.

This standard applies to any operation that requires employees or students to enter or work inside any manhole, sewer, sump, vault, crawl space, air handler, boiler, vat, pit, tunnel, tank, tank car, or similar confined space.

The Confined Space Entry Program shall be implemented for Clemson University including the main branch, and remote campuses where there is a need to perform any activity within a confined space. However, a Department/Division may implement its own Confined Space Entry Program if it is as stringent as the University’s Confined Space Entry Program.

Employees and students who are authorized to enter a Permit-Required Confined Space must complete confined space entry training. (See section 7.0 of this plan for information regarding training). Authorized employees and students shall not enter any confined space until satisfactory air monitoring is completed, and appropriate action taken as described in this program to protect entrants. An attendant must be present and in constant communication with entrant(s) for the duration of any entry.

**2.0 Definitions**

Acceptable entry conditions – means conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter and work within the space.

Attendant – means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

Authorized entrant – means an employee who is authorized by the employer to enter a permit space.

Banking or blinding – means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that can withstand the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Confined space –

1. A space that is large enough and so configured that an employee or student can bodily enter and perform assigned work.
2. A space that has limited means for entry or exit; and
3. A space that is not designed for continuous employee occupancy.

Double block and bleed – means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency – any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

Engulfment – the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entry – the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Entry permit – the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in paragraph (f) of this section.

Entry supervisor – the person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

Hazardous atmosphere – an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
2. Airborne combustible dust at a concentration that meets or exceeds its LFL.

(3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;  
  
(4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in subpart G, Occupational Health, and Environmental Control, or in subpart Z, Toxic and Hazardous Substances, of this part and which could result in employee exposure in excess of its dose or permissible exposure limit.

(5) Any other atmospheric condition that is immediately dangerous to life or health.

Hot work permit – the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

Immediately dangerous to life or health (IDLH) – 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.

Inerting – the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Isolation – the process by which a permit 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 or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

Line breaking – 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.

Non-permit confined space – 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.

Oxygen deficient atmosphere – an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere – an atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required confined space – a confined space that has one or more of the following characteristics:

(1) Contains or has a potential to contain a hazardous atmosphere;  
  
(2) Contains a material that has the potential for engulfing an entrant;  
  
(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or  
  
(4) Contains any other recognized serious safety or health hazard.

Permit-required confined space program – the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

Permit system – the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

Prohibited – any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Rescue service – the personnel designated to rescue employees from permit spaces.

Retrieval system – the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Testing – 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.

**3.0 Prohibitions**

No confined space shall be entered until adequate precautions have been taken to ensure the safety of the entrant(s) and their work environment.

**4.0 Potential Hazards**

A. Oxygen Deficiency - Normal breathing air contains 20.9% oxygen. Atmospheres containing less than 19.5% oxygen are oxygen deficient while atmospheres with more than 23.5% oxygen are oxygen enriched. Under this program, atmospheres with less than 19.5% oxygen or more than 23.5% oxygen are considered immediately dangerous to life and health (IDLH).

Some of the more common causes of oxygen deficiency are:

1. Oxidation of metals (rusting).

2. Bacterial action in sewers, which consumes oxygen and produces carbon dioxide and hydrogen sulfide.

3. Fuel combustion – which uses oxygen and produces carbon monoxide.

4. Displacement by other heavier gases, such as argon.

B. Combustible/Flammable Gases and Vapors - These hazards are naturally occurring gases (natural gas) and the vapors of a large group of liquids which are used as fuels and solvents. Some of these liquids vaporize easily when placed in open air. Both gases and vapors may burn or explode when mixed with the required amount of air and an ignition source.

1. Many combustible and flammable gases/vapors are heavier than air and will flow down to the lowest point of a pit, tank, or opening in a confined area while other gases may be lighter than air and collect at the top of the confined space.

2. Many of these combustible and flammable gases/vapors are also toxic such as, petroleum solvents (paint thinner, gasoline, lacquer thinner) vapors when they are concentrated in a confined space without adequate ventilation.

C. Toxic Atmospheres - Gases and vapors which are known to produce disease, acute 7 discomfort, bodily injury or death are atmospheric toxins. The two main classifications of gases found in these atmospheres are irritants and asphyxiants.

1. Irritants - Gases which are irritating to the respiratory and nervous system at low levels and may cause death at higher levels. An example is hydrogen sulfide which can occur naturally or as a by-product of natural decomposition of organic material.

2. Asphyxiants - These are gases which cause asphyxiation by displacing the oxygen in the atmosphere or by preventing oxygen uptake within the body. Three common examples are methane, hydrogen sulfide (sewer gas) and carbon monoxide. Methane and hydrogen sulfide are often encountered in sewers, storage bins, and tunnels. Carbon monoxide is the common toxic product of combustion.

D. General Safety Hazards

1. Mechanical and Electrical – De-energization of mechanical and electrical systems must be completed to eliminate these hazards before entry into a confined space by an entrant. Special precautions must be taken to ensure that static electricity or other ignition sources are disconnected, and other mechanical hazards are protected.

2. Communication Problems - When visual monitoring of the worker is not possible, two-way radio is necessary to ensure communication between the entrant and the attendant.

3. Entry and Exit - Entry and exit time is a major factor because of configuration of the confined space

4. Physical - Physical hazards include thermal effects, noise, vibration, slick/wet surfaces, rotation, fatigue, engulfment, and falling objects.

a. Thermal factors are air temperature, radiant heat exchange, and air 8 movement. If the space is hot with a large amount of residual heat, such as a boiler or steam manhole, it must be allowed to cool before any entry. Allow boilers at least 3 days to cool before attempting entry into the various compartments. Allow steam manholes enough time to cool and reach zero pressure on steam supply and condensate return lines before entry. Monitor entrants for signs of heat stress when entry is made into hot environments.

b. Operations that generate vibrations also produce noise which may further interfere with communication and generate static electricity which could provide a source of ignition in atmospheres with flammable or combustible vapors.

c. Rotational Hazards, such as electric motor shafts, fan belts, fan blades and blower squirrel cages pose physical hazards to entrants that must be controlled by de-energization (lockout/tagout) before entry into a confined space.

d. Slick/wet Surfaces - Aside from slip and fall hazards, a wet surface will increase the likelihood for electric shock in areas where electrical circuits, equipment, and tools are used.

e. Fatigue - Work/rest cycles should be determined prior to entry based upon temperature, humidity level and space limitations and modified as required.

**5.0 General Requirements**

A. The work area will be evaluated to determine if it meets the definition of a confined space.

B. Confined spaces will be identified as such and employees and applicable students shall be informed of their existence, location, and danger by posting danger signs or other equally effective means.

C. Effective measures will be taken to prevent unauthorized entry into a confined space.

D. A written Permit-Required Confined Space Program is used (See Section IX) if entry into the confined space is required and shall detail:

1. Measures taken to eliminate any unsafe conditions associated with the removal of the entrance cover.

2. Measures taken to guard the entrance opening from entry after the cover is removed.

3. Testing methodology of the atmosphere with a calibrated direct read instrument for oxygen first, followed by combustible/flammable gases and vapors, carbon monoxide, hydrogen sulfide, and potential toxic air contaminants, as required.

4. Preventative measures taken to ensure that there is not a hazardous atmosphere whenever an employee is inside the space.

5. How continuous forced air ventilation will be used to eliminate any hazardous atmosphere, how it will be directed to ventilate the employee work areas, and the source of the air supply.

6. Monitoring activities designed to ensure that continuous forced air prevents the formation of a hazardous atmosphere.

7. Procedures to extract an entrant if a hazardous atmosphere is detected during entry, how the space will be evaluated to determine how the hazardous atmosphere developed, and how the hazardous atmosphere will be eliminated before re-entry.

E. Verify that the space is safe for entry and a written certification containing the date, the location of the space, and the signature of the person providing the certification is completed. 10

F. Entry permits are issued for each entry into a Permit-Required Confined Space.

G. When there are changes in the use, risk/hazard level or configuration of a non-permit or Permit-Required Confined Space, it will be re-evaluated, reclassified, and documented as appropriate.

H. When outside contractors are involved in Permit-Required Confined Space entry:

1. The contractor will follow the confined space entry requirements described in Occupational Safety and Health Administration’s (OSHA) Confined Space Standard, 1910.146 and 1910.269 and the University’s Confined Space Entry Program.

2. The contractor will complete the required confined space entry checklist and provide the checklist to the University Project Manager.

**Permit-Required Confined Space Program**

A. Prevent unauthorized confined space entry. As outlined in each Permit-Required Confined Space Permit, precautions such as cordoning/barricading the work area to prevent entry from students and other people must be employed to prevent unauthorized entry.

B. Identify and evaluate hazards before entry. A summary sheet of all Permit-Required Confined Spaces has been completed.

C. Safe permit entry operations include:

1. Ensuring all attendants, entrants and entry supervisors have received the appropriate level of training to perform their duties.

2. Permitting for the type of Permit-Required Confined Space.

3. Ensure all the mandatory equipment has been inspected, in good working order, and listed on the permit.

4. Ensure work area is properly barricaded to prevent unauthorized entry.

5. The confined space entry supervisor should complete all items on the Confined Space Supervisor Field Inspection Form and entry permit. Special precautions should be administered before opening a confined space especially manhole covers. This includes but is not limited to eliminating any hazards and guarding the opening (standard guardrail, temporary cover, etc.) The confined space entry supervisor should review all information and certify accuracy by signing the entry permit and posting at the job site.

6. The attendant, entrant and confined space entry supervisor should pay particular attention to atmospheric testing i.e., oxygen content, flammable gases and vapors, carbon monoxide, hydrogen sulfide, potential toxic air contaminants, purging, inerting, flushing, lockout/tagout and/or ventilating the permit space as necessary to control the hazards. Please note continuous forced air ventilation shall be used, as follows:

a. If a hazardous atmosphere is detected, an employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere.

b. The air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees and students have left the confined space.

c. The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.

7. Once all precautionary measures have been taken and conditions are acceptable for entry, the authorized entrant(s) may enter the confined space.

8. The atmosphere within the space shall be continually tested and recorded hourly to ensure that the continuous forced air prevents the formation of a hazardous atmosphere.

9. If a hazardous atmosphere is detected during entry:

a. Each employee shall leave the space immediately.

b. The space shall be evaluated to determine how the hazardous atmosphere developed.

c. Measures shall be implemented to protect employees and students from the hazardous atmosphere before any subsequent entry takes place.

10. The permit must be cancelled after work has been completed not to exceed 24 hours. The entry supervisor, attendant or authorized entrant may cancel the permit by indicating the expiration date/time on the permit.

D. The following equipment may be mandatory depending on the specific confined space to be entered:

1. Air testing and monitoring equipment

2. Ventilating equipment

3. Communications equipment

4. Personal protective equipment where engineering and work practice controls are insufficient

5. Adequate lighting equipment

6. Barriers and shields

7. Equipment for safe egress

8. Rescue and emergency service equipment

E. Evaluation of permit space conditions

1. Pre-entry testing for acceptable entry conditions is required before entry and continual testing for the duration of the operation.

2. Where it is not feasible to isolate the space (as in sewers) continuous monitoring is required.

3. Tests for atmospheric hazards require testing for oxygen first followed by combustible\flammable gases and vapors, carbon monoxide, hydrogen sulfide and toxic gases and vapors as required all conducted by a qualified and trained attendant or other designated person.

F. One attendant is required outside the permit space for the duration of entry operations.

G. Duties are established, and training provided for all participants.

H. Rescue and emergency services are provided by local fire department only. The attendant will summon the fire department in an emergency.

I. Entry operations follow the coordinated entry provisions when contractors or other employers are involved.

J. A Permit-Required-Confined Space Program review is conducted annually, and then whenever there is reason to believe deficiencies may exist.

K. A mandatory Entry Permit System is used for all Permit-Required Confined Space entries.

1. An entry permit must be completed prior to entry authorization and be signed by the identified confined space entry supervisor.

2. The permit must be always available to authorized entrants at or near the point of entry.

3. The permit may not exceed the time required to complete the assigned task.

**Permits are valid for a maximum 24-hour period.**

4. The entry supervisor will terminate entry and cancel the entry permit when

a. Entry operations have been completed or

b. A condition not allowed by the entry permit arises.

5. Cancelled entry permits must be retained for at least 1 year by the issuing department to facilitate program review.

**6.0 Duties and Responsibilities**

A. Risk Management and Safety

1. Prepare the Confined Space Entry Program with annual review and revisions as needed.

2. Distribute the Confined Space Entry Program.

3. Provide consultation, advisory assistance and information concerning confined space entry or the Confine Space Entry Program.

4. Identify and document potential confined space work areas.

5. Provide Confined Space Entry Permit Form.

6. Investigate and document all accidents or near misses reported as the result of confined space entry or an aborted entry attempt.

B. Divisions/Departments

1. Notify Risk Management and Safety of documented confined space work areas under their control.

2. Implement all provisions of the Confined Space Entry Program for work or research areas under their control.

3. Provide training for confined space entrants and attendants as required by the Confined Space Entry Program.

4. Identify confined space entry supervisors that are authorized to sign the Permit-Required Confined Space Entry Permit.

5. Provide specialized training to confined space entrants and attendants regarding the specific equipment and practices used during entry.

6. Assure that warning signs are posted immediately outside of entrances to confined spaces and that such signs are secured.

7. Assure that the entry permit is posted immediately outside the entrance to confined spaces.

8. Maintain original entry permits upon completion or termination of a Permit Required Confined Space Entry.

9. Coordinate Confined Space Program and rescue drills with the local fire department.

C. Confined Space Entry Supervisor

1. Complete the Confined Space Supervisor Field Inspection Form.

2. Complete the Permit-Required Confined Space entry permit and verify that all precautions and pre-entry procedures are fulfilled prior to entry.

3. Terminate entry and cancel permits in the event conditions within the space change, entrants show signs of over-exposure or conditions cannot be verified.

4. Verify availability of the rescue team prior to entry.

5. Ensure that only documented entrants access the confined space.

6. Ensure appropriate PPE is available and used by entrants.

7. The entry supervisor shall supervise the entry team’s implementation of the means, procedures, and practices necessary for safe entry operations which include, but are not limited to, the following:

a. Isolating the permit space by blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; using a double block and bleed system; using lockout/tagout procedures; or blocking or disconnecting all mechanical linkages.

b. Purging, inerting, flushing, or ventilating the Permit-Required Confined Space as necessary to eliminate or control atmospheric hazards.

8. Ensure that only the assigned tasks or activities identified on the permit are conducted within the Permit-Required Confined Space. If assigned activities exceed the duration of the permit or additional activities are required the entrant(s) shall leave the space until the confined space entry supervisor can modify the Confined Space Entry Permit, as required.

9. Ensure original entry permits are forwarded to the responsible Division/Department upon completion or termination of a Permit-Required Confined Space Entry.

10.An entry supervisor also may serve as an attendant, or as an authorized entrant, as long as that person is trained and equipped to do so. The duties of entry supervisor may be passed from one individual to another during the course of an entry.

D. Confined Space Entrants

1. Adhere to the requirements of the confined space entry plan and supplemental entry procedures.

2. Understand the hazards of the confined space including the signs and symptoms of exposure.

3. Communicate with the attendant regularly while inside the confined space and report any unusual conditions or circumstances.

4. Leave the confined space immediately when instructed to do so by the attendant or if warning signs or symptoms of exposure to a hazard is detected.

5. Complete all safety training requirements, requesting further instruction if unclear on any part of the training.

6. Comply with documentation procedures.

7. Report all workplace injuries, perceived exposure incidents or unsafe conditions to their supervisor as soon as possible.

8. Use appropriate PPE.

E. Confined Space Entry Attendants

1. Adhere to the requirements of the entry permit and supplemental entry procedures.

2. Remain outside of the confined space in constant two-way communication with the entrant(s) until relieved by an alternate attendant or all entrants have exited the space.

3. Conduct pre-entry and periodic air monitoring as required by the Confined Space Program.

4. Continuously communicate with the confined space entrants and monitor the space to assure that conditions remain within acceptable parameters as defined in the Permit-Required Confined Space Entry section of this program and instruct entrants to leave a space if any parameter varies from acceptable as defined in this document.

5. Maintain an accurate account of entrants in the confined space.

6. Summon rescue personnel in the event of an emergency; and AU Public Safety and Security or local Police Department in the event that an unauthorized person enters the space.

7. Complete all safety training requirements, request further instruction if unclear on any part of the training, and comply with documentation procedures.

8. Understand the hazards of the confined space including the signs and symptoms of exposure.

9. Report all workplace injuries, exposure incidents or unsafe conditions to the confined space entry supervisor as soon as possible.

10.Perform non-entry rescue procedures if able to do so safely.

11.Perform no duty that may interfere with attendant duties while serving in the capacity of attendant.

12.Secure the confined space after completion of the work to prevent dangerous conditions.

**7.0 Training**

A. Training is provided to ensure understanding, knowledge, and skills are developed for assigned duties.

B. Training is provided:

1. Before initial assignment.

2. When there is a change in confined space entry requirements.

3. When inappropriate deviations in program have been identified or employee knowledge levels indicate that additional training is warranted.

4. On an annual basis.

C. Training will include:

1. Confine space identification and location.

2. Monitoring equipment operation.

3. Warning signs, symptoms of exposure and detection of prohibited conditions.

4. Use of personal protective equipment.

5. Evacuation requirements.

6. Rescue procedures.

7. Ventilation techniques.

8. Basic first aid and CPR.

D. Employees and students must establish proficiency in duties assigned.

E. Certification of training includes trainee names, date of-training and trainer’s signature.

**8.0 Rescue and Emergency Services**

An entrant’s evacuation from a confined space, or self-rescue, shall take place when any of the following conditions occur:

A. An attendant observes a potential problem that can affect the entrant(s) such failure of the ventilation system.

B. Activation of an atmospheric alarm.

C. Entrant(s) experience signs and symptoms of a hazard in the space.

Each entrant shall use a body harness with a retrieval line attached. The other end of the retrieval line shall be attached to a mechanical device for any vertical permit required space more than 5 feet deep.

In the event an entrant or entrants become incapacitated, rescue services that can be performed safely from outside the confined space (e.g., hoisting a harnesses entrant) shall be undertaken. Other entrants within the confined space shall immediately exit the confined space and only provide such assistance as will not endanger them. In any event the attendant shall immediately notify the local fire department.

The local fire department provides rescue and emergency services.

A. The local fire department must be informed of confined space location and potential hazards involved in rescue prior to entry.

B. Access must be provided to all permit-required spaces for fire department/rescue team training purposes.

C. A Material Safety Data Sheet (MSDS) must be provided for all chemicals or products of concern.

**9.0 Point of Contact**

For any questions, comments, or matters pertaining to this written plan, please contact [oeshelp@clemson.edu](mailto:oeshelp@clemson.edu).

**9.0 Appendices**

**Appendix I**

**Confined Space Entrant Log**

Confined Space Description and Location:

Confined Space Entry Permit Number:

Date:

Special Instructions for Attendants:

|  |  |  |  |
| --- | --- | --- | --- |
| **Attendants:** |  |  |  |
| On Duty Time | Signature | Off Duty Time | Signature |
|  |  |  |  |
| **Entrants:** |  |  |  |
| Enter Time | Signature | Exit Time | Signature |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Appendix II**

**Confined Space Entrant/Attendant Log (cont’d)**

**Duties of Authorized Attendants**

* Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
* Be aware of possible behavioral effects of hazard exposure in authorized Entrants;
* Continuously maintain an accurate count of authorized Entrants in the permit space and accurately identify who is in the permit space;
* Communicate with authorized Entrants as necessary to monitor Entrant status and to alert Entrants of the need to evacuate space;
* Monitor activities inside and outside the space to determine if it is safe for Entrants to remain in the space and order the authorized Entrant to evaluate the permit space immediately under any of the following conditions;
  + Detection of a prohibited condition;
  + Detection of behavioral effects of hazard exposure in an authorized Entrant;
  + Detection of a situation outside the space that could endanger the authorized Entrants; or
  + If the Attendant cannot effectively and safely perform all of his/her required duties.
* Summon rescue and other emergency services as soon as the Attendant determines the authorized Entrant may need assistance to escape from permit space hazards;
* Take the following actions when an unauthorized person approach or enter a permit space while entry is underway:
  + Warn the unauthorized person that they must stay away from the permit space.
  + Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
  + Inform the authorized Entrants and the Entry Supervisor if unauthorized persons have entered the permit space;
* Perform non-entry rescue as specified by the plan.
* Perform no duties that might interfere with the Attendant’s primary duty to monitor and protect the authorized Entrants.
* Wear a distinctive color (e.g., orange) vest at all times while performing the duties of an Attendant.