

According to the U.S. Department of Labor, Occupational Safety and Health Administration's (OSHA) regulations, 29 CFR 1910.146 and 29 CFR 1926.1200, "Permit-Required Confined Spaces", **a confined space is defined as**

- any location that is large enough and so configured that an employee can bodily enter,
- has limited openings for entry and egress,
- and is not intended for continuous employee occupancy.

## **POLICY**

It is the policy of the University of South Carolina (UofSC) to take every reasonable precaution to provide a work environment free from recognized hazards for its employees. Entry into a permit-required or non-permit-required confined space will be in conformance with all OSHA requirements.

A permit system has been established for all entries into permit-required confined spaces. **All** completed confined space permit forms must be submitted to the USC Occupational Safety Manager and will be kept on file for a minimum of 1 year.

All entries into USC's tunnels will require the entry supervisor to notify the affected Energy Plant prior to entry and when exiting the tunnel. This is for all entries through the Energy Plant, manhole, vault cover, or etc.

All contractors who will be entering permit-required confined spaces within USC will submit for approval their confined space entry program, employee training documentation to the Project Manager at their Pre-con meeting and Will be

required to adhere to the requirements of 29 CFR 1910.146, 29 CFR 1926.1200, and USC's written program.

## **DEFINITIONS**

**Acceptable Entry Conditions:** 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.

**Affected Employee:** Any employee that performs any work related to confined space entry.

**Attendant:** An individual stationed outside one or more permit spaces who monitors the authorized entrant(s) and who performs all attendant duties assigned in our program.

**Authorized Entrant:** An individual who is trained and authorized (by our facility) to enter permit required spaces.

**Contractor/Vendor:** A non-employee being paid to perform work in our facility.

**Competent Person** means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees and who has the authorization to take prompt corrective measures to eliminate them.

**Entry Permit:** The written or printed document that is provided by the facility to allow and control entry into a permit space and that contains information specified in the confined space program.

**Entry Supervisor:** The person 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. The entry supervisor can also serve as an attendant.

**Hazardous Atmosphere:** An atmosphere that may expose employees to the risk of death, incapacitation, impairment of abilities to self-rescue (escape unaided from a permit space), injury, or acute illness from one or more of the following:

1. Flammable gas, vapor, or mist in excess of 10% of the Lower Flammable Level (LFL)
2. Airborne combustible dust at a concentration that meets or exceeds its LFL (Can be approximated where the dust obscures vision at a distance of 5 feet or less)
3. Atmospheric oxygen concentration below 19.5% or above 23.5%
4. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in 29 CFR 1910 Subpart G, Occupational Health and Environmental Control or in Subpart Z, Toxic and Hazardous Substances.
5. Any other atmospheric condition that is Immediately Dangerous to Life or Health (IDLH).

## **RESPONSIBLE GROUPS**

**Host Employer:** means the employer that owns or manages the property where construction work is taking place.

**Controlling Contractor:** is the employer that has overall responsibility for construction at the worksite.

**Entry Employer:** any employer who allows an employee it directs to enter a confined space.

## DUTIES OF THE ENTRY TEAM

### A. ENTRY SUPERVISOR

1. Know and understand the hazards that may be faced during entry, including information on the signs or symptoms, and consequences of the exposure.
  2. Verify by checking that the appropriate notations have been made on the permit; that all tests specified by the permit have been conducted; and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
  3. Terminate the entry and cancel the permit when reasons for entering the space have been completed or when an unacceptable condition within the space or outside the space is detected.
  4. Verify that rescue services are available and that the means of calling the rescue service is operable. The entry supervisor will ensure that the attendant knows the method for summoning help if rescue is required.
  6. Determine that throughout the entry process, all responsibilities and functions remain consistent with safety, regardless of production requirements, time or cost.
  7. Have the authority to stop work if they feel that the entry is unsafe for any reason.
  8. Be trained to the proper level of responsibility.
- \* If an Entry Supervisor must be relieved at any point during the entry, the permit must be cancelled by said entry supervisor. All entrants must evacuate the space and the new Entry Supervisor must assess the space and conditions with the entry team and a new permit.

### B. ENTRANT

1. Verify that rescue services are available and that the means of calling the rescue service is operable.
2. Proper use of equipment.
3. Means and methods of communication with the attendant.
4. Warning signs or symptoms of exposure to a dangerous situation, or the entrant detects a condition that would warrant immediate evacuation.
5. When self-rescue must occur by means of an order by the attendant or entry supervisor, when signs or symptoms of exposure are detected, when any prohibited condition is recognized or evacuation alarm is activated.

All entrants must be qualified for the task assigned, (electrical, welding etc.)

### C. ATTENDANT

1. Know the hazards that may be faced during entry or while in the space
2. Be aware of possible behavioral effects of hazard exposure in authorized entrants.
3. Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants is precise at all times.
4. Remain outside the permit space during entry operations until relieved by another authorized attendant(s).
5. Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to

evacuate the space when conditions warrant an immediate evacuation.

6. Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately.

### Appendix C

#### Permit-Required Confined Space Locations Columbia Campus

- All Columbia Campus Tunnels.
- All Columbia Campus high voltage manholes.
- All Columbia Campus steam manholes.
- All Columbia Campus boilers located inside our energy facilities.
- All Columbia Campus chill water manholes.
- All Columbia Campus water treatment tanks (that allow entry) located inside our energy facilities.
- All Columbia Campus energy facility smoke stacks.
- All sump pumps that an employee can bodily enter (e.g. southeast corner of Thomas Copper Library).

Contractor \_\_\_\_\_  
print company name

Entry Supervisor \_\_\_\_\_  
print name and date

USC Rep. \_\_\_\_\_  
print name and date