**29 CFR 1910.146—Permit-Required Confined Spaces**

***Scope & Application:*** *This standard applies when employees enter confined spaces that have hazards such as engulfment, hazardous atmosphere, entrapment, or other serious safety or health hazard.*

*The following standard is referenced in 29 CFR 1910.146—Permit-Required Confined Spaces:*

* *29 CFR 1910.134—Respiratory Protection*
* *29 CFR 1910.1200—Hazard Communication*

***Note:*** *29 CFR 1910.146—Permit-Required Confined Spaces references the 29 CFR 1010.134—Respiratory Protection requirement for respiratory protection for employee rescue when employees are working in hazardous atmospheres. It also states that for air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with 29 CFR 1910.1200—Hazard Communication standard can provide guidance in establishing acceptable atmospheric conditions.*

***Standard Requirements for 29 CFR 1910.146—Permit-Required Confined Spaces:***

* ***Programs/Plans:*** *Permit Space Program*
* ***Procedures/Practices:*** *Work procedures, monitoring procedures, permit system (Include in your Permit Space Program)*
* ***Training:*** *Initially, annually (rescue)*
* ***Inspections:*** *Initially*
* ***Recordkeeping:*** *Program, training, entry permits, safety data sheets*

***Example Program:*** *The following example program may be modified to be site-specific to the organization. Please reference 29 CFR 1910.146—Permit-Required Confined Spaces to ensure that all requirements are being met.*

**Confined Spaces—Permit Space Program**

**Purpose**

 To protect employees from the hazards associated with entry into permit-required confined spaces and to develop procedures by which employees will enter such spaces.

**Policy**

All spaces owned or operated by the company that meet the definition of permit-required confined spaces (PRCS) will be identified and appropriately marked. The company must control access to these spaces.

Employees are prohibited from entering any space meeting the definition of a PRCS unless the following conditions are met:

* The company determines that employees must enter permit-required confined spaces to perform assigned duties. The employees are trained to safely perform these duties in a PRCS.

The confined space is rendered safe for entry:

* By issuance and compliance with the conditions of a permit.
* When the space is reclassified as a non-permit space without making entry into the space. (This does not apply to a PRCS with an actual or potential hazardous atmosphere.)
* Alternate entry procedures are performed.

Permits issued under the procedures in this policy will be limited to the duration of the job but no longer than one work shift. A new permit is required if work continues on a second shift or another day.

**Definitions**

Confined Space—a space that meets *all three* of the following conditions:

* Is large enough and so configure that an employee can bodily enter and perform assigned work.
* Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage binds, hoppers, vaults and pit are spaces that have limited mean of entry).
* Is not designed for continuous human occupancy.

Permit-Required Confined Space (Permit Space)—a confined space that has *one or more* of the following characteristics:

* Contains or has the potential to contain a hazardous atmosphere.
* Contains a material that has the potential for engulfing an entrant.
* Has an internal configuration such that the entrant could be trap or asphyxiated by inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section.
* Contains any other recognized serious safety and/or health hazard.

**Duties and Responsibilities**

**Authorized Attendant**—The trained individual stationed outside the permit space to monitor the authorized entrants and to perform all attendant duties. The attendant will:

* Remain outside the permit space during entry operations unless relieved by another authorized attendant.
* Perform non-entry rescues when specified by the company’s rescue procedure.
* Know existing and potential hazards, including information on the mode of exposure, signs or symptoms, consequences, and physiological effects.
* Maintain communication with, and keep an accurate account of, those workers entering the permit space.
* Order evacuation of the permit space when a prohibited condition exists; when a worker shows signs of physiological effects of hazard exposure; when an emergency outside the confined space exists; or when the attendant cannot effectively and safely perform required duties.
* Summon rescue and other services during an emergency.
* Ensure that unauthorized people stay away from permit spaces or exit immediately if they have entered the permit space.
* Inform authorized entrants and the entry supervisor if any unauthorized person enters the permit space.
* Perform no other duties that interfere with the attendant’s primary duties.

The following personnel have been trained and are authorized attendants:

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**Authorized Entrant—**The trained individual who enters the permit space. The entrant is required to:

* Know space hazards, including information on the means of exposure such as inhalation or dermal absorption, signs and symptoms, and consequences of the exposure.
* Use appropriate personal protective equipment properly.
* Maintain communication with attendants as necessary to enable them to monitor the entrant’s status and alert the entrant to evacuate when necessary.
* Exit from the permit space as soon as possible when ordered by the attendant; when he or she recognizes the warning signs or symptoms of exposure; when a prohibited condition exists; or when an automatic alarm is activated.
* Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist.

The following personnel have been trained and are authorized entrants:

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**Entry Supervisor**—The trained individual with the responsibility to ensure that acceptable entry conditions are present within a permit space under his or her jurisdiction; issuing a permit authorizing entry; overseeing entry operations; and terminating the entry and permit.

For each entry into a PRCS, the designated entry supervisor will:

* Perform the pre-entry duties of the entry supervisor on the permit space to be entered.
* Prepare an entry permit.
* Perform the post-entry duties of the entry supervisor.
* Collect the permit from the attendant at the end of entry or prepare the documentation for reclassification or alternate entry.

For the duration of each entry into a permit space, the entrants and attendants will perform the duties outlined in these procedures, and will return the permit or documentation to (insert job title of responsible person) upon termination of entry.

The following personnel have been trained and are authorized entry supervisors:

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**Contractors**—The company must ensure that every contract for work within an identified permit space or work within a non-permit space will::

* Notify the contractor what spaces are permit-required confined spaces and of the hazards within those spaces and any on-going entry operations.
* Require the contractor to control entry into the space by a permit system meeting the requirements of 29 CFR 1910.146—Permit-Required Confined Spaces.
* Require the contractor to eliminate any temporary hazards created by the work or notify the supervisor responsible for the space of any permanent hazards created by the work.

**Rescue Service Personnel**—The company must identify emergency responders (either on- or off-site) who are capable of responding to an emergency in a timely manner. The responders must have appropriate rescue equipment, including respirators, and be trained how to use all equipment.

Rescue service personnel must receive the authorized entrants training and be trained to perform assigned rescue duties. The following personnel have been trained as rescue service personnel:

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The standard also requires that all rescuers be trained in first aid and CPR. At a minimum, one rescue team member must be currently certified in first aid and CPR. Employers must ensure that practice rescue exercises are performed yearly and that rescue services are provided access to permit spaces so they can practice rescue operations. Rescuers also must be informed of the hazards of the permit space. This includes off-site rescue teams such as local fire and rescue companies.

***Note:*** *If the company is relying on off-site rescue services, the company must notify the off-site rescue of the permit-required confined space entry and ensure that the rescue service is on standby during entry.*

**Harnesses and Retrieval Lines**

Authorized entrants who enter a permit space must wear a chest or full body harness with a retrieval line attached to the center of their backs near shoulder level or above their heads. Wristlets may be used if the company can demonstrate that the use of a chest or full body harness is not feasible or creates a greater hazard.

The other end of the retrieval line must be attached to a mechanical device or a fixed point outside the permit space. A mechanical device must be available to retrieve someone from vertical type permit spaces more than 5 feet (1.52 m) deep.

**Safety Data Sheets**

If an injured entrant is exposed to a substance for which a safety data sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or other written information must be made available to the medical facility personnel treating the exposed entrant.

**Training**

*All Employees*—The respective supervisor will ensure that each employee receives awareness training on:

* The characteristics of a confined space.
* The characteristics of a permit-required confined space.
* Whether they are allowed to enter permit-required confined spaces.
* Required actions when working around or near a permit space entry.
* The authority of authorized attendants and entry supervisors.

Training will be required:

* During orientation.
* Prior to entry into a permit-required confined space.
* Whenever the supervisor becomes aware that the employee has failed to follow the instructions provided in the training.

The supervisor will provide verification of training to: (insert job title of responsible person).

***Entry Supervisors, Attendants and Entrants***—The supervisor will ensure that employees designated as entry supervisors, attendants and entrants receive training in:

* The requirements of this policy and procedures.
* The duties, authority and responsibilities of entry supervisors, attendants, lead entrants and entrants.
* The types of hazards expected to be encountered in permit spaces.
* The calibration, use, care and cleaning of equipment expected to be used during entry operations
* The performance of pre-entry actions expected to be required in permit spaces.

Training will be provided:

* Prior to assignment or authorization of duties within permit spaces.
* Within one month of revisions to this policy or procedures. Assignment or authorization for permit space entry will be suspended until training is completed.
* Whenever the supervisor becomes aware that an employee is deviating from the procedures of this policy. Assignment or authorization for permit space entry will be suspended until training is completed.
* Annually.

The company will certify that each affected employee has successfully completed training. The certification must include at least the following:

* Employee name
* Name, signature or initials of the trainer
* Dates of training

Additionally, the certification may include a synopsis of the topics covered, copies of materials used during training such as handouts and presentations, and copies of tests (if used) to determine trainee understanding and proficiency, and other documentation deemed appropriate by the company. The certification must be maintained by the company and a copy may be provided to the employee. Refer to the Training Program section for certification sheets.

**Program Review**

The company will review the effectiveness of the program annually, using the canceled permits and other documentation from the preceding 12 months, entry supervisor comments, and other available information. If no entries were made during the preceding 12 months, no annual review is required.

The entry supervisor, authorized attendant or entrant may make recommendations to management at any time to make changes in procedures to address and correct weaknesses in the procedures.

The entry supervisor or unit manager may notify the company at any time of potential weaknesses in policy or procedures. The company will view and initiate whatever changes necessary to address confirmed weaknesses.

**Retention of Records**

Canceled permits and other documentation will be retained by the company not less than one year following the date of entry. Permits will then be retained as an employee exposure record if applicable.

***Note:*** *Example confined space evaluations are located in Section 6—Forms.*