

# CONFINED SPACES - PERMIT-REQUIRED

## Supplement to Standard Training Module

### TRAINING REQUIREMENTS OVERVIEW

This standard Vivid module provides a general overview of the Permit-Required Confined Space standard for employees involved in permit-required confined space entry. This module provides an increased awareness-level training from the course entitled “Confined Spaces”. The goal of this lesson is to make employees aware of the hazards that exist in a permit-required confined space. The employee will also recognize that special precautions, training, procedures, and an approved Permit Confined Space Entry Permit are required for entry. It is important to note that facilities **must** have their own written site-specific confined space program in place if employees will enter permit-required confined spaces. In addition, facilities **must** train their employees on the specific plans.

Additional employee training, beyond the standard Vivid module **must** be provided **Authorized Entrants, Attendants and Entry Supervisors**. The additional training **must** cover:

- **Location of the facility’s confined spaces and permit-required confined spaces**
- **Specific entry procedures for designated permit spaces**
- **Alternate Entry Procedures, if applicable**
- **Use of site-specific air monitoring equipment**
- **Responsible duties during permit-required confined space entry**
- **Communications systems during entry**
- **Use of specific non-entry retrieval equipment and**
- **Procedures to summon rescue services**
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**Please also review the training module entitled “Confined Spaces”.**

Frequency: All training **must** be provided to Authorized Entrants, Attendants and Entry Supervisors:

- at the time of the employee’s initial assignment
- before there is a change in assigned duties
- whenever there is a change in permit-required confined space operations that presents a hazard about which an employee has not previously been trained

- whenever the employer has reason to believe either there are deviations from the permit space entry procedures, or that there are inadequacies in the employee's knowledge or use of entry procedures.

## GENERAL OVERVIEW OF THE STANDARD

### CONFINED SPACES - 29 CFR 1910.146

**PURPOSE:** To ensure that permit-required confined spaces are identified, labeled, secured from unauthorized entry, and when entered, entry procedures are developed prior to entry.

1. **SCOPE:** Requirements are intended for practices and procedures to protect employees in general industry from the hazards of entry into permit spaces.
2. **GENERAL REQUIREMENTS / IDENTIFICATION AND LABELING CONFINED SPACES:** The employer shall evaluate the workplace to determine if any permit-required confined spaces exist; this evaluation must be documented. If the workplace contains permit spaces, the employer shall inform affected employees (by posting danger signs or by any other equally effective means) of the existence and location of and the danger posed by the permit spaces.

A **confined space** is a space that:

- Is a size and shape that allows a person to enter and perform assigned work; AND
- Has limited/restricted means of entry and egress; AND
- Is not designed for continuous occupancy

A **permit space** is a confined space that:

- Contains or, has the potential to contain, a hazardous atmosphere;
- Contains material with the potential for engulfment;
- Has a shape or internal configuration that could trap or asphyxiate an entrant; OR
- Contains any other serious safety or health hazard

3. **WRITTEN CONFINED SPACE ENTRY PROGRAM:** Requirements are stated for the development and implementation of a written permit space program, if the employer decides that its employees will enter permit spaces. The written program must detail the following:

- Measures implemented to prevent unauthorized entry
  - Identify and evaluate the hazards of permit spaces before employees enter
  - Procedures and practices necessary for safe permit space entry operations – including specific components mentioned in the standard
  - Materials and equipment are detailed in the standard to be used for safe entry – including equipment for testing and monitoring, ventilation, communication, personal protection, lighting, barriers and shields, and other equipment necessary for entry and rescue
  - Evaluation of permit space conditions through testing and monitoring – must be provided to employees when requested
  - Responsibilities and accountabilities of authorized entrants, entry supervisors and attendants
  - Procedures to coordinate multi-employer permit space entry
  - Procedures for summoning rescue services
  - Entry procedures for specific permit spaces, a documented system for issuing, reviewing entry permits – additional requirements for a permit system are detailed in the standard
4. ALTERNATE ENTRY PROCEDURES: An employer may use “alternate entry procedures” if certain conditions are demonstrated and documented. Alternate entry procedures do not require:
- Entry procedures
  - Entry permits and permit system
  - Entry attendants
  - Rescue services

The following conditions must be demonstrated and documented for use of alternate entry procedures:

- The only hazard posed by the permit space is an actual or potential hazardous atmosphere
- Continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry
- Monitoring and inspection data supports the above determinations

Specific procedural requirements are detailed in the standard for entry into alternate entry permit spaces. Although an entry “permit” is not necessary, a documented certification is required to enter an alternate entry permit spaces.

5. ADDITIONAL REQUIREMENTS: The standard details certain criteria required for changes in configuration, reclassification of permit spaces to non-permit spaces, and associated documentation.

6. **EMPLOYEE INFORMATION AND TRAINING:** The employer shall provide training to each affected employee so that all employees acquire the understanding, knowledge, and skills necessary for the safe performance of duties during permit space entry.

Employers shall provide training:

- Before the employee is first assigned entry duties
- Before there is a change in assigned entry duties
- Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained
- Whenever the employer has reason to believe either that there are deviations from the required permit space entry procedures or that there are inadequacies in the employee's knowledge or use of entry procedures

Training shall establish employee proficiency and the employer shall certify the employee as an authorized entrant. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

7. **DUTIES:** Specific duties are outlined in the standard for authorized entrants, attendants, and entry supervisors. A higher level of training is required for these individuals.
8. **RESCUE AND EMERGENCY SERVICES:** Specific requirements are stated for employers who have employees enter permit spaces to perform rescue services. Requirements for rescue personnel include training for
- Appropriate use of personal protective equipment
  - Appropriate use of rescue equipment
  - Rescue duties
  - Practice rescue sessions
  - First aid
  - Cardiopulmonary resuscitation

When outside rescue services are used, the host employer shall inform the rescue service of permit space hazards, and provide access to all permit spaces to develop rescue plans and practices rescue operations.

Specific requirements are also detailed for non-entry retrieval systems.

## 9. CONTRACTOR ENTRY:

Host Employer Requirements - When an employer (host employer) arranges to have a contractor perform work that involves permit space entry, the host employer shall:

- Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section
- Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space
- Inform the contractor of any precautions or procedures that have been implemented for the protection of employees in or near permit spaces where contractor personnel will be working
- Coordinate entry operations with the contractor when both host employer personnel and contractor personnel will be working in or near permit spaces,
- Debrief the contractor at the conclusion of the entry operations regarding the permit space entry and any hazards confronted or created in the permit space during entry operations

Contractor Requirements - In addition to complying with the permit space requirements that apply to all employers, each contractor who is retained to perform permit space entry operations shall:

- Obtain any available information regarding permit space hazards and entry operations from the host employer
- Coordinate entry operations with the host employer, when both host employer personnel and contractor personnel will be working in or near permit spaces, as required by 29CFR1910.146(d)(11)
- Inform the host employer of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation

## REFERENCE MATERIALS

### Publications

*Confined Spaces Advisor 1.1. OSHA (1997, December). This is interactive expert help for the Permit spaces Standard (29 CFR 1910.146). It will assist users to identify confined spaces and deal with permit-required confined spaces. The program is available in both online and downloadable versions.*

- Online: [Confined Spaces Advisor 1.1](#)
- Downloadable: [Confined Spaces Advisor 1.1](#)

### Website

OSHA website: <http://www.osha.gov/SLTC/confinedspaces/index.html>

### Non-Required Tools

*Permit-required Confined Space Decision Flow Chart - 1910.146 App A*  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9798&p\\_text\\_version=FALSE](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9798&p_text_version=FALSE)

*Sample Permit-required Confined Space Program - 1910.146 App C*  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9800&p\\_text\\_version=FALSE](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9800&p_text_version=FALSE)

*Confined Space Pre-Entry Check List - 1910.146 App D*  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9801&p\\_text\\_version=FALSE](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9801&p_text_version=FALSE)