

## Permit Required Confined Spaces

### Description:

Confined space under the general industry OSHA standard means a space that:

- (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- (2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- (3) Is not designed for continuous employee occupancy.

The OSHA standard for permit required confined spaces sets out mandatory procedures, and in some cases, mandatory protective and rescue equipment, that must be used whenever employees enter or work in a confined space that meets the definitions given above.

### Regulatory Reference

29 CFR § 1910.146 Permit-required confined spaces.

### Applies to:

The standard applies to any employer and employee when an employee enters a confined space during job-related activities. In the propane industry the standard does not typically apply to operations with the exception of employees such as U.S. DOT Registered Inspectors who enter cargo tanks for the purposes of internal inspection. The standard might also apply to employees at underground storage facilities and loading terminals who might be involved with maintenance of dehydration or filtering equipment that meets the definition for confined space under the OSHA standard.

### General Requirements:

- (1) Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:
  - (a) Contains or has a potential to contain a hazardous atmosphere;
  - (b) Contains a material that has the potential for engulfing an entrant;
  - (c) 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
  - (d) Contains any other recognized serious safety or health hazard.
- (2) Permit-required confined space program (permit space program) means 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.
- (3) The employer shall evaluate the workplace to determine if any spaces are permit- required confined spaces.  
Note: Proper application of the decision flow chart in appendix A to §1910.146 would facilitate compliance with this requirement.

- (4) If the workplace contains permit spaces, the employer shall inform exposed 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.  
Note: A sign reading "DANGER-PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" or using other similar language would satisfy the requirement for a sign.
- (5) If the employer decides that its employees will not enter permit spaces, the employer shall take effective measures to prevent its employees from entering the permit spaces and shall comply with paragraphs (c)(1), (c)(2), (c)(6), and (c)(8) of 29 CFR § 1910.146.
- (6) If the employer decides that its employees will enter permit spaces, the employer shall develop and implement a written permit space program that complies with the regulation. The written program shall be available for inspection by employees and their authorized representatives.
- (7) An employer may use the alternate procedures specified in paragraph (c)(5)(ii) of 29 CFR § 1910.146 for entering a permit space under the conditions set forth in paragraph (c)(5)(i) of the standard.
- (8) If an employer decides to use contractors to perform work in permit spaces, the employer must notify the contractor that contractor employees must be trained and work under a written permit spaces program. (Such contractor notices should be documented and kept on file.)
- (9) Written programs and the procedures described in them must conform to the elements prescribed in detail in 29 CFR § 1910.146 and Appendices. If your company is required to have a written program, examine the regulation carefully and incorporate all applicable items.
- (10) Employee participation. (1) Employers shall consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program required by the OSHA standard for permit-required confined spaces. Employers shall make available to affected employees and their authorized representatives all information required to be developed by the standard.

### **Training Requirements:**

If the employer establishes a permitted confined space program, the employer shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this regulation.

Training shall be provided to each affected employee:

- (a) Before the employee is first assigned duties under this section;
- (b) Before there is a change in assigned duties;
- (c) Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained;
- (d) Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures required by paragraph (d)(3) of the regulation or that there are inadequacies in the employee's knowledge or use of these procedures.

The training shall establish employee proficiency in the duties required by the standard and shall introduce new or revised procedures, as necessary, for compliance.

The employer shall certify that the training required by paragraphs (g)(1) through (g)(3) of the section on training has been accomplished. 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.

Specific and detailed training requirements are given in the standard and should be understood before establishing the training program.

### **Maintenance and Review**

Managers, supervisors and potentially affected employees should be informed of the nature and requirements of OSHA's permit-required confined space standard so that they will be able to identify potential application of the regulation. Documenting the method for informing potentially affected employees, the date, time and place of the notification is a good practice as well.

Companies should review communication with employees and contractors who are authorized to perform internal inspections of cargo tanks or any pressure vessel, and ensure that they are properly trained, equipped, and operating under a written permit space program plan.

### **Additional Information and Resources**

Appendix A to §1910.146 Permit-Required Confined Space Decision Flow Chart

Appendix B to §1910.146 Procedures for Atmospheric Testing

Appendix C to §1910.146 Examples of Permit-required Confined Space Programs

Appendix D to §1910.146 Sample Permits

Appendix E to §1910.146 Sewer System Entry

Appendix F to §1910.146 Rescue Team or Rescue Service Evaluation Criteria  
(Non-Mandatory)