

# Confined Space Safety Topic

This section addresses safety issues concerned with determination of confined space, safety, equipment and OSHA regulations.

OSHA'S permit-required confined space rule for general industry workplaces, (29 CFR 1910.146) outlines safety and health program management practices. In addition, it also reviews employer obligations to identify permit and non-permit spaces in the workplace and safety protocols. "Entry into a confined space" is defined as placing any part of the face or body into the space. Examples include: *sewer manholes, inlets, and outfalls; some culverts; electrical and other vaults; tanks; trenches; pits; pipe assemblies; ducts; silos; storage bins; and hoppers.*

## Determination Questions

- Is the area large enough and configured so that an employee can enter/perform work?
- Does the area have limited or restricted means for entry or exit?
- Is the area not designed for continuous employee occupancy?
- Is the area considered to have poor ventilation?
- Could the area contain/retain a hazardous atmosphere or pose an entrapment hazard?

If the area is deemed a confined space, OSHA requires employer implementation of a comprehensive space- entry program. The program should control and protect employees from permit space hazards and to regulate employee entry into permit spaces. A permit system must be in place before employees enter confined spaces. Entry into a permit-required confined space is limited to "authorized entrants." The program must include various safety precautions, such as testing of the confined space, monitoring of entrants, and retrieval procedures.

# Permit-Required Confined Space Requirements

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

## Safety Equipment

Proper safety equipment plays an important role in confined space work. All entrants, attendants, and other support personnel must be provided with all equipment necessary to work in a confined space safely, at no cost to them. Equipment that must be provided as needed:

- Testing and monitoring equipment
- Ventilating equipment needed to obtain acceptable entry conditions
- Communications equipment
- Personal protective equipment (PPE) insofar as feasible engineering and work practice controls do not adequately protect employees
- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency
- Barriers and shields as required
- Equipment, such as ladders, needed for safe entry and exit
- Rescue and emergency equipment, except to the extent that the equipment is provided by rescue services

- Any other equipment necessary for safe entry into and rescue from permit spaces

## General

Confined space is a rather intricate subject, and varies greatly from site to site. It is highly recommended that one do all proper research necessary as well as visit OSHA to get detailed regulation. It is important to note that there are alternatives to full permit entry as well as reclassifying a permit space to a non-permit space , and are outlined in OSHA's 29 CFR 1910.146(c)(5) and 29 CFR 1910.146(c)(6) and 29 CFR 1910.146(c)(7) .