

## Confined Spaces

### **Additional Resources:**

- [OSHA QuickCard™ \(Spanish\)](#)
- [Complete OSHA Standard](#)
- [FAQ—Permit-Required Confined Spaces](#)

Confined space means a space that:

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

All employees required to enter into confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. Before work begins at, each employer must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined spaces include, but are not limited to: Bins; boilers; pits (such as elevator, escalator, pump, valve or other equipment); manholes (such as sewer, storm drain, electrical, communication, or other utility); tanks (such as fuel, chemical, water, or other liquid, solid or gas); incinerators; scrubbers; concrete pier columns; sewers; transformer vaults; heating, ventilation, and air-conditioning (HVAC) ducts; storm drains; water mains; precast concrete and other pre-formed manhole units; drilled shafts; enclosed beams; vessels; digesters; lift stations; cesspools; silos; air receivers; sludge gates; air preheaters; step up transformers; turbines; chillers; bag houses; and/or mixers/reactors. 1926.1201

The primary hazards in confined spaces are lack of oxygen, flammable or explosive atmospheres, or toxic gases or vapors. Never trust your senses to detect lack of oxygen or toxic substances. Human senses can't detect lack of oxygen or toxic gases and vapors which are odorless and tasteless. Avoid entering a confined space until you know it has been tested by someone qualified to do so. Wait for your supervisor to tell you it's safe to enter.

Additionally, you may find yourself in a situation concerning a "Permit-Required Confined Space" defined as having one or more of the following characteristics:

- 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 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
- Contains any other recognized serious safety or health hazard.

If you have to work in a confined space that lacks oxygen or contains toxic or harmful substances don't enter until you receive the proper training and appropriate equipment. Proper training must be provided to each affected employee:

- In both a language and vocabulary that the employee can understand;
- Before the employee is first assigned duties under this standard;
- Before there is a change in assigned duties;
- Whenever there is a change in permit space entry operations that presents a hazard about which an employee has not previously been trained; and
- Whenever there is any evidence of a deviation from the permit space entry procedures required by paragraph §1926.1204(c) of the standard or there are inadequacies in the employee's knowledge or use of these procedures.