

## Toolbox Talk: Confined Spaces



1

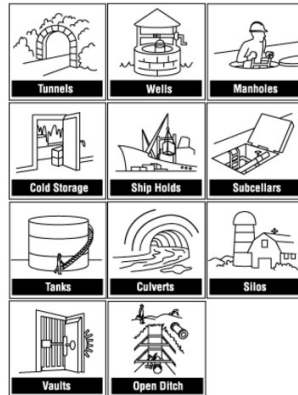
### Introduction:

Confined spaces surround us at every turn. You may not even realize that you probably drive by multiple confined spaces every day. One example that you might not even consider is a manhole or sewer drain. These are only two examples of common confined spaces; there are many more, and the risks involved are ones you may not consider on a regular basis. Confined spaces can pose serious risks due to limited ventilation and potential for hazardous gases to accumulate. It's important to be aware of these risks and take necessary precautions when working in or near confined spaces.

### Confined Spaces: What's OSHA say about them?

An OSHA confined space refers to a space that meets specific regulatory criteria set by the Occupational Safety and Health Administration (OSHA). According to OSHA, a confined space has the following characteristics:

1. **Limited Openings for Entry and Exit:** The space must have restricted entrances and exits. For example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are typical confined spaces because their entrances/exits are not designed for continuous worker occupancy.
2. **Not Designed for Continuous Employee Occupancy:** The space is not intended to be a location where an employee works for extended periods. This means that the confined space is generally for the purpose of performing specific tasks such as inspections, repairs, or maintenance.
3. **Large Enough to Enter and Conduct Work:** The space must be large enough for an employee to enter and perform tasks but may have limited movement which complicates the ability to work within it.



### Criteria for Permit-Required Confined Spaces (PRCS)

A confined space is classified by OSHA as a “Permit-Required Confined Space” (PRCS) if it meets one or more of the following additional criteria beyond those listed for a general confined space:

1. **Contains or has a potential to contain a hazardous atmosphere:** If the space could contain flammable or toxic gas, oxygen deficiency, or other atmospheric hazards, it’s designated as PRCS.
2. **Contains a material that has the potential for engulfing an entrant:** If there is a risk of materials such as grains, sand, or other similar substances engulfing someone inside the space, it requires a permit.
3. **Has an internal configuration such that an entrant could be trapped or asphyxiated:** This includes spaces with inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section where escaping would be difficult.
4. **Contains any other recognized serious safety or health hazards:** These could be risks from machinery parts, electrical hazards, or heat stress.

### Requirements for Entry Into Permit-Required Confined Spaces

Entry into PRCS requires compliance with several OSHA regulations, including:

- **Entry Permit:** The employer must issue a permit for each entry into a confined space, which includes details like the purpose of entry, names of entrants, and expected duration.
- **Testing and Monitoring:** Air quality testing must be conducted to check for toxic gases and sufficient oxygen levels.
- **Ventilation:** Mechanical ventilation is often required to maintain safe air quality.
- **Attendant:** An attendant must be present outside the PRCS to monitor and assist entrants.
- **Rescue and Emergency Services:** Employers must provide rescue and emergency services onsite or arrange for external services to be available to respond quickly.
- **Training:** Entrants and attendants must be trained in the safe operation around and within PRCS, including familiarization with hazards and emergency procedures.

Compliance with these criteria helps ensure the safety of workers when they are in potentially dangerous confined spaces. If you’re working in or around these types of environments, thorough understanding and preparation are critical for safety.



#### QUICK REMINDERS:

##### Pre-Entry Preparation

- **Check Your Equipment:** Before entry, inspect all personal protective equipment (PPE) and entry equipment such as harnesses, retrieval lines, and tripods for damage or defects. Ensure all equipment is suitable for the specific conditions of the confined space.
- **Bump Testing and Calibrating Gas Meters:** Always perform a bump test and calibration on gas detectors before each use to ensure they are working correctly. This checks the functionality of the sensors and alarms.
- **Verify Rescue Equipment:** Confirm that all rescue equipment is functional and appropriate for the space and the potential emergencies identified.

##### Atmospheric Testing

- **Test Before Entry:** Conduct initial atmospheric testing from outside the confined space to check for toxic gases, oxygen levels, and potential flammable atmospheres.
- **Continuous Monitoring:** Use portable gas monitors to continuously assess the air quality inside the confined space as conditions can change rapidly.
- **Ventilate When Necessary:** If hazardous atmospheres are detected, use mechanical ventilation to maintain safe working conditions and re-test before entering.

##### Communication and Coordination

- **Maintain Constant Communication:** Use reliable communication tools to keep in touch with the attendant outside the confined space. Immediate communication is critical in an emergency.
- **Use the Buddy System:** Never enter a confined space alone. Always work in teams to ensure help is readily available in case of an emergency.