

Confined Spaces Awareness

"The safest confined space is one you never enter." The U.S. averages 96 deaths a year in confined spaces, with over 60% being "would be rescuers." (U.S. Dept of Labor.) **Who will rescue you?** Many workplaces contain areas that are considered **confined spaces** because, while they are not necessarily designed for people, they are large enough for workers to enter and perform certain jobs. A confined space also has limited or restricted means for entry or exit and is not designed for continuous occupancy. Confined spaces include, but are not limited to, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes, tunnels, equipment housings, ductwork, pipelines, etc. Entry into confined spaces without proper precautions could result in injury, impairment, or death due to: an atmosphere that is flammable or explosive, lack of sufficient oxygen to support life, or contact with or inhalation of toxic materials, amongst other general work area hazards.

Assignment of Responsibility

Employer	Program Manager	Entry Supervisor	Entrants/Affected Employees	Attendant
Administer the confined space Program.	Responsible for managing the confined space program.	Authorized and qualified to approve confined space entry permits.	Employees who are granted permission to enter a confined space.	Shall be stationed outside of the confined workspace.

Training: The employer should provide training so that all employees acquire the understanding, knowledge, and skills necessary for safe performance of their duties in confined spaces. Training for atmospheric monitoring personnel should include proper use of monitoring instruments, including instruction on the following:

- Proper use of the equipment.
- Calibration of equipment.
- Sampling strategies and techniques.
- Exposure limits (PELs, TLVs, LELs, UELs, etc.).

Pre-Entry Hazard Assessment: A hazard assessment should be completed by the supervisor prior to any entry into a confined space. No entry should be permitted until the hazard assessment has been reviewed and discussed by all persons engaged in the activity.

Hazard Controls: Employers should be able to either control the health hazards by eliminating the responsible agents, reduce health hazards below harmful levels, or prevent the contaminants from contacting with the workers.

Atmospheric Test: Data should be gathered prior to entry into a confined space. Atmospheric testing is recommended for two distinct purposes: (1) evaluation of the hazards of the permit space, and (2) verification that acceptable conditions exist for entry into that space.

Purging and Ventilation: Consider: How long should a space be purged? Can all spaces be effectively purged or ventilated? Should a space have continuous ventilation?

Ingress/Egress Safeguards: Means for safe entry and exit should be provided for confined spaces. Each entry and exit point should be evaluated by the Entry Supervisor to determine the most effective methods and equipment that will enable employees to safely enter, perform work, and exit the confined space.

Warning Signs and Symbols: If the workplace contains permit-required spaces, the employer should 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-required spaces.

Additional Resources

- [TDI Workplace Safety Videos](#)
- [TDI Confined Space Safety Training Program](#)
- OSHA [Calibrating and Testing Direct-Reading Portable Gas Monitors](#)
- OSHA [Permit-Required Confined Spaces Quick Card](#)
- TMLIRP [Safety Manual Form](#) (Confined Space Entry Permit)
- TMLIRP [Online Learning Center](#): Confined Spaces 101