



Confined Space Toolbox Talk

Confined workspaces are especially dangerous due to limited access, and they have poor ventilation. The words "confined space" sounds small, but they could be big. Examples include tanks, access shafts, utility vaults, sewers, pipes, truck or rail tank cars, boilers, manholes, silos, and storage bins. This is a must-do topic if people are working in confined spaces at your site.

What are confined Spaces?

A space must meet all of the following criteria to be considered a confined space:

- A space that is large enough to bodily enter
- A space that has limited means of entry or exit
- A space not designed for continuous employee occupancy

Confined Space Hazards

Atmospheric Hazards

- Oxygen concentration below 19.5% or above 23.5%, Flammable gas greater than 10% of the Lower Explosive Limit (LEL), Atmospheres exceeding the OSHA Permissible Exposure Limit (PEL), Airborne combustible dust that obscures vision at 5ft. or less.

Configuration Hazards

- Internal configurations that could entrap or suffocate an entrant by inwardly converging walls or floors that taper to a smaller cross-section Example: hoppers, bins, and tanks.

Engulfment Hazards

- Where there is a potential for a liquid or solid material to drown, capture or suffocate an entrant. Examples include water, grains and soils.

Other Hazards

- Other hazards may include electrical hazards, mechanical hazards, chemical hazards, steam hazards, extreme temperatures, slippery floors, poor lighting, and noise.

Regulatory agencies require workplaces to have a plan for working in confined spaces safely. If you work in a confined space, you should know your company's procedures for safely entering into the space and working in it. Confined spaces should be identified and classified, and safe entry procedures developed.



All confined spaces are categorized into two main groups: non-permit and permit-required. Permit-required confined spaces must have signs posted outside stating that entry requires a permit.

Permit Required Confined Spaces present one or more of these hazards:

- Has the potential to contain a hazardous atmosphere
- Could contain material capable of engulfing someone entering the space
- Has an internal configuration such that a person could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers off to a smaller cross section (e.g., a grain silo), or
- Contains any other recognized serious safety or health hazard.

These are the things you should be aware of before you enter a confined space:

- Know how to enter it safely.
- Know how to exit quickly.
- Know that the atmosphere in the space is tested and found to be free of dangerous levels of toxic or flammable vapors and that there is sufficient oxygen.
- Know that the atmosphere within the space is going to remain safe while you are working.
- Know the rescue plan in the event of an emergency and make sure the proper rescue equipment is available and in good condition.
- Know that another person outside the confined space is keeping an eye on you as you work and that they know the rescue plan, too.

Another very important thing to remember is what to do if someone working in a confined space becomes ill or injured. In the event of such an emergency, you should never enter a confined space to rescue someone without the proper equipment, training, and atmospheric testing. Chances are whatever caused the illness or injury will claim you as a victim too.

It is possible to work safely in a confined space, but it is a task that requires careful planning and preparation. Do not be tempted to take shortcuts when it comes to confined spaces. Follow all safety precautions and do not hesitate to speak up if you are unsure of the correct procedures. You play the most important role of all when it comes to working safely. By consistently following safe work procedures and not taking chances, you will be working safely for a long time to come.



Non-Permit Confined Spaces

A non-permit confined space is defined as a confined space that does not contain (or, for atmospheric hazards, have the potential to contain) any hazard capable of causing death or serious physical harm.

A permit-required confined space can be reclassified as a non-permit space if you eliminate the potential hazards.

This means you've:

- Tested, inspected, and confirmed a lack of actual or potential atmospheric hazards
- Eliminated other potential hazards without entry into the space
- Documented the basis for determining a lack of hazards with a signed certification
- Made the certification available to all employees entering the space

For the purpose of confined space classification, atmospheric hazards cannot be considered "eliminated" through forced air ventilation.

Once a confined space is reclassified, it can remain non-permit for as long as non-atmospheric hazards remain eliminated.