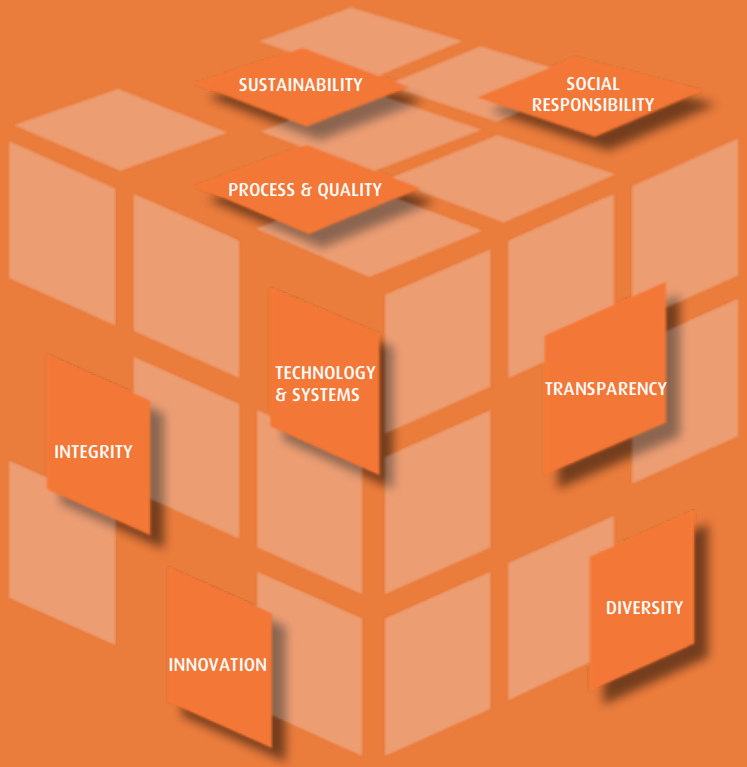
Confined Space Hazards



ATALIAN
GLOBAL SERVICES

This module is about Confined Space Hazards.

During this module you will answer a Quick Quiz to help you review and test your understanding; this is not scored.

There is also a short Final Quiz at the end of the module, which will be scored. It is necessary to pass with a score of 80% or better to receive credit for this module.

This module takes 20 minutes to complete.

What is Confined Space?

Generally speaking, a confined space is an enclosed or partially enclosed space that:

- Is not primarily designed or intended for human occupancy
- Has a restricted entrance or exit by way of location, size or means
- Can represent a risk for the for the health and safety of anyone who enters, due to one or more of the following factors:
  - Its design, construction, location or atmosphere
  - The materials or substances in it
  - Work activities being carried out in it
  - Mechanical, process and safety hazards present.

What is Confined Space and What are the Hazards?

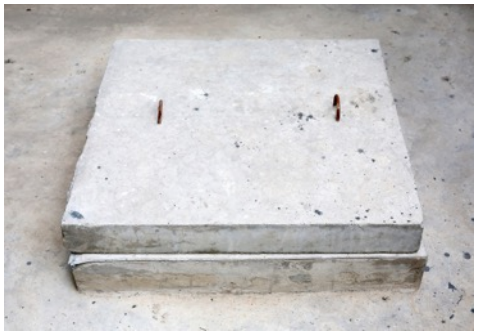
Confined spaces can be below or above ground. Confined spaces can be found in almost any workplace. A confined space, despite its name, is not necessarily small.

Examples of confined spaces include:
silos, boilers, vats, hoppers, utility vaults, tanks, sewers, pipes, access shafts, truck or rail tank cars, aircraft wings. Ditches and trenches may also be a confined space when access or egress is limited.

All hazards found in a regular workspace can also be found in a confined space. However, they can be even more hazardous in a confined space than in a regular worksite. Let's look at some examples!

Hazards in confined spaces can include:

- Poor air quality: There may be an insufficient amount of oxygen for the worker to breathe. The atmosphere might contain a poisonous substance that could make the worker ill or even cause the worker to lose consciousness. Natural ventilation alone will often not be sufficient to maintain breathable quality air.
- Chemical exposures due to skin contact or ingestion as well as inhalation of 'bad' air.
- Fire Hazard: There may be an explosive/flammable atmosphere due to flammable liquids and gases and combustible dusts which if ignited would lead to fire or explosion.
- Process-related hazards such as residual chemicals, release of contents of a supply line
- Noise.
- Safety hazards such as moving parts of equipment, structural hazards, entanglement, slips, falls.
- Radiation.
- Temperature extremes including atmospheric and surface.
- Shifting or collapse of bulk material.
- Barrier failure resulting in a flood or release of free-flowing solid.
- Uncontrolled energy including electrical shock.
- Visibility.
- Biological hazards.



Why more hazardous?

Many factors need to be evaluated when looking for hazards in a confined space. There is smaller margin for error. An error in identifying or evaluating potential hazards can have more serious consequences. In some cases, the conditions in a confined space are always extremely hazardous.

In other cases, conditions are life threatening under an unusual combination of circumstances. This variability and unpredictability is why the hazard assessment is extremely important and must be taken very seriously each and every time one is done.

Examples of confined spaces include:

A. Utility Vaults

B. Tanks

C. Boilers

D. All the above

Answer

Examples of confined spaces include:

A. Utility Vaults

B. Tanks

C. Boilers

D. All the above

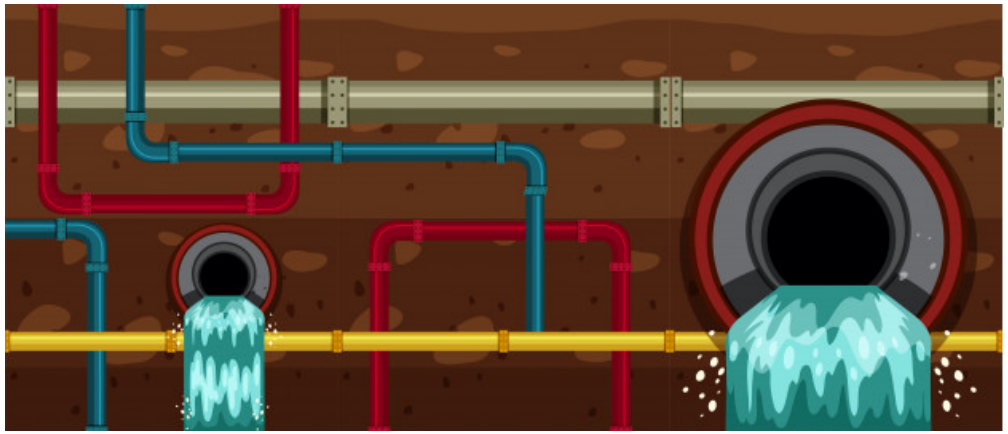
Some examples include:

- The entrance/exit of the confined space might not allow the worker to get out in time should there be a flood or collapse of free-flowing solid.
- Self-rescue by the worker is more difficult.
- Rescue of the victim is more difficult. The interior configuration of the confined space often does not allow easy movement of people or equipment within it.
- Natural ventilation alone will often not be sufficient to maintain breathable quality air. The interior configuration of the confined space does not allow easy movement of air within it.
- Conditions can change very quickly.
- The space outside the confined space can impact on the conditions inside the confined space and vice versa.
- Work activities may introduce hazards not present initially.

Review / Retrain

Retraining and/or review of the confined space program will occur if there is an unauthorized entry of a confined space, a hazard not covered by the permit occurs, at the occurrence of an injury or near miss, or employee complaints on the program.

The QHSE Department must internally review the confined space program whenever there is an incident or near miss. OSHA requires a review of the permit space program, using the canceled permits retained within 1 year after each entry and revise the program as necessary, to ensure that employees are protected. This has been coordinated with host facilities that they are to be responsible for this review and will contact ATALIAN if there is an incident or near miss.



Congratulations!
You've completed the Confined Space Hazards module.

Click here and take the final quiz.