



CONFINED SPACE

According to the Occupational Safety and Health Administration (OSHA), approximately 100 workers die each year in confined space accidents. A significant portion of these fatalities, more than 60%, involve individuals attempting to rescue others, often due to a lack of adequate training. These types of fatalities are preventable through proper training and adherence to safety protocols.

A confined space is defined as an area that:

- Is large enough for a worker to enter and perform work
- Has limited or restricted means of entry or exit
- Is not designed for continuous occupancy

Examples: tanks, manholes, crawl spaces, silos, and pipelines.

Hazards

Oxygen deficiency and toxic atmospheres are major causes of fatalities in confined spaces. Atmospheric monitoring in confined spaces is critical for ensuring the safety and health of individuals working in environments where air quality can quickly become hazardous. In confined spaces, one or more of the following hazards can be present:

- Oxygen Deficiency or Enrichment – when an atmosphere contains less than 19.5% or more than 23.5% oxygen.
- Toxic Gases or Vapors – a build-up of airborne contaminants like hydrogen sulfide (H₂S) that may cause impairment or loss of consciousness.
- Combustible Gases – the presence of flammable airborne contaminants, like methane (CH₄) that may cause fire or explosions.
- Poor Ventilation – which may lead to an oxygen deficiency.
- Limited Visibility or Movement – may increase the chance of slips, trips and falls.
- Engulfment – from loose material in grain bins, silos and trench collapses.

Permit-Required Confined Spaces

A confined space becomes permit-required when it has one or more of the following characteristics:

- Hazardous Atmosphere -This includes situations where the air inside the space has dangerous levels of flammable, toxic, or oxygen-deficient gases or vapors.
- Engulfment Hazard - If there is a risk of being buried or trapped by materials like liquids, grain, or other flowable solids.
- Trapping or Asphyxiation Hazard - The shape of the space itself can be a hazard if it has inwardly converging walls, a tapered floor, or other features that could trap or suffocate someone entering.
- Other Serious Hazards - Any other recognized safety or health risk that could injure or kill someone working in the confined space makes it a permit-required space.

Employer Responsibilities (per OSHA 1926.1203)

- Identify all confined spaces on site.
- Determine if they are permit-required.
- Inform exposed employees.
- Develop and implement a permit space program.
- Provide training and equipment.
- Designate roles: Entrant, Attendant, Entry Supervisor.

Training

OSHA requires all employees who work in and around confined spaces to be properly trained. This training must result in an understanding of the hazards in the permit space and the methods used to isolate, control or in other ways protect employees from these hazards, and for those employees not authorized to perform entry rescues, in the dangers of attempting such rescues. Training must be provided before an employee's first assignment in a confined space, after any changes in job duties or hazards, and whenever there are deviations from established procedures, according to OSHA.

GCSC RESOURCES

SAFETY TRAINING

6:00am – 3:00pm csr@mygcsc.com

Course Code	Course
A08CSE	Confined Space
A08RSP	Respiratory Protection

OCCUPATIONAL HEALTH SERVICES

6:00am – 2:00pm ohs@mygcsc.com

Course Code	Service
08RSPCLR	Medical Clearance OSHA Questionnaire
08RFTFF 08RFTHF 08RFTN95 08RFTSA	Fit Test
08PFT	Pulmonary Function Test

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