



TOOLBOX TALK – CONFINED SPACE

Objective

To educate employees about the hazards associated with confined spaces and ensure safe entry procedures are followed to prevent serious injuries and fatalities.

What is a Confined Space?

A confined space is an area that:

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

Examples include:

- Storage Tanks
- Silos
- Vessels
- Boilers
- Reactors
- Sewers
- Pipelines
- Underground Vaults
- Manholes
- Pits
- Process Columns

Why is Confined Space Dangerous?

Confined spaces may contain hidden hazards that can quickly become life-threatening.

Common hazards include:

- Oxygen deficiency
- Oxygen enrichment
- Toxic gases or vapours
- Flammable or explosive atmospheres
- Engulfment by liquids or solids



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- Moving machinery
- Electrical hazards
- Heat stress
- Poor visibility
- Restricted escape routes

Many confined space fatalities occur because untrained workers attempt rescue without proper equipment.

Common Hazardous Gases

Workers should be aware of hazardous gases that may be present inside confined spaces.

- Oxygen (O₂)
- Hydrogen Sulphide (H₂S)
- Carbon Monoxide (CO)
- Methane (CH₄)
- Carbon Dioxide (CO₂)
- Ammonia (NH₃)
- Chlorine (Cl₂)

Always perform atmospheric gas testing before and during entry.

Safe Confined Space Entry Procedure

1. Obtain Entry Permit

Never enter a confined space without an approved Confined Space Entry Permit.

2. Isolate Energy Sources

Lockout/Tagout (LOTO) all electrical, hydraulic, pneumatic, steam, and mechanical energy sources.

3. Test the Atmosphere

Check for:

- Oxygen level (19.5%–23.5%)
- Flammable gases



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- Toxic gases

Never rely on smell to detect hazardous gases.

4. Ventilate the Space

Provide continuous fresh air ventilation whenever required.

5. Wear Required PPE

Use the correct PPE based on the risk assessment.

6. Assign an Attendant

A trained standby person must remain outside the confined space throughout the work.

7. Maintain Communication

Maintain continuous communication between entrants and the attendant.

8. Be Prepared for Emergencies

Ensure rescue equipment and trained rescue personnel are available before entry.

Confined Space Do's

- Obtain a valid entry permit.
- Conduct atmospheric gas testing before entry.
- Continue gas monitoring during the job.
- Use approved PPE.
- Keep ventilation running where required.
- Ensure a trained attendant is present.
- Follow Lockout/Tagout procedures.
- Know the emergency rescue plan.

Confined Space Don'ts

- Never enter without a permit.
- Never enter without atmospheric testing.
- Never bypass isolation procedures.
- Never work alone inside a confined space.



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- Never ignore gas detector alarms.
- Never smoke or create ignition sources.
- Never attempt an unauthorized rescue.
- Never enter if you are untrained.

Required PPE

Depending on the task, use:

- Safety Helmet
- Safety Shoes
- Safety Goggles
- Chemical Resistant Gloves
- Protective Clothing
- Respiratory Protection (if required)
- Full Body Harness with Lifeline
- Portable Gas Detector
- Hearing Protection (where applicable)

Before Entering a Confined Space

Confirm the following:

- Entry permits approved.
- Risk assessment completed.
- Energy sources isolated (LOTO).
- Atmosphere tested and safe.
- Ventilation provided.
- PPE inspected and worn.
- Standby attendant available.
- Rescue equipment ready.
- Communication system working.

If any answer is **No**, do not enter the confined space.

Key Safety Message

**PERMIT → ISOLATE → TEST → VENTILATE → MONITOR → COMMUNICATE →
WORK SAFELY**



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Never enter a confined space unless all safety requirements have been completed.

Toolbox Talk Takeaway

"Test Before You Enter – Every Time."

Confined spaces can become deadly within seconds. Always follow the permit system, test the atmosphere, isolate all energy sources, maintain communication, and never enter without proper authorization.