



# WORKING IN CONFINED SPACES

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**HSEQ Direct** is a digital communication, registration and training platform with a focus on Health, Safety, the Environment and Quality.  
**Designed specifically for the workplace!**

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# WHAT IS IT?

**Confined spaces are relatively small places with poor maneuverability.** They are substantially enclosed and particularly susceptible to extraordinary circumstances that may be, or become, hazardous or life-threatening from hazardous substances or conditions within the space or nearby. Therefore you must be extra alert to the risks associated with these work places.

Some examples of confined spaces: **tunnels, wells, manholes, pipes, cold storage, ship holds, subcellars, tanks, culverts, silos, vault, open ditch.**



# HAZARDS

Hazards that can occur in confined spaces include:

- fire and explosion (due to exceeding explosion limit)
- (potential) lack of oxygen resulting in suffocation
- intoxication from over-exposure to hazardous products
- electrocution (e.g. damp area, electrically conductive material)
- entrapment
- injuries (e.g. moving machine parts)
- slipping, falling, stumbling (due to damp, moss formation, obstacles)
- hearing damage from noise



# PREVENTION (1/2)

- safeguard the space according to your company's guidelines; ensure that gas is measured and monitored; do not start working if the outcome of a measurement is above the safe working value (ask your company about this ); the gas measurement results will determine what appropriate action is required.
- prepare the area according to your company's guidelines; remove any obstacles in the surrounding area to ensure the space is easily accessible for rescuers in case of an emergency.



# PREVENTION (2/2)

- discuss the work beforehand and verify that the right procedures are used and that everyone involved is familiar with the task.

**Make sure you have the right Personal Protection Equipment (PPE) and tools. Ask your company for further clarification.**



# PROTECTION (1/2)

If you are working in a confined space, ensure there is a manhole observer on the spot who communicates and checks with you whilst also in communication with your HSE Manager.

**Have a rescue team available comprising at least two people who carry independent respiratory protection equipment.**



# IN CASE OF...

**When things go wrong, the workforce may be exposed to serious and immediate danger.** Effective arrangements for raising the alarm and carrying out rescue operations in an emergency are essential. Contingency plans will depend on the nature of the confined space, the risks identified and consequently the likely nature of an emergency rescue. Emergency arrangements will depend on the risks. You should consider communications together with rescue and resuscitation equipment.

# IMPORTANT INFORMATION

- 1 Have **confined spaces safeguarded** according to your company's guidelines.
- 2 **Prepare confined spaces** in accordance with your company's guidelines.
- 3 Ensure there is a **manhole observer** on the spot.
- 4 **Do not leave anything behind** in a confined space.
- 5 **Use the correct PPE and tools** as your company has prescribed.



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## QUESTIONS? MORE INFORMATION? UNSAFE WORKING CONDITIONS?

Your HSE Manager is there to help answer any questions and ensure a safe working environment for all.

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# QUESTION 1

## What defines a confined space?

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A. Processes that are subject to change, with limited escape routes and difficult for emergency workers to access.

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B. Areas that are remote, difficult to access or have poor maneuverability.

.....

C. An area at frequent risk of hazardous vapors, of relatively small space and/or poor ventilation.

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## QUESTION 2

**What risks are associated with working in a confined space?**

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A. Fire, explosions, dropped objects, electrocution.

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B. Intoxication, potential lack of oxygen, injuries caused by moving machine parts.

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C. Noise-induced hearing damage, suffocation, arc flash, entrapment.

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## QUESTION 3

**Several measures must be taken before you are allowed to work in a confined space. What are these measures?**

- A. Safeguarding in accordance with a safety plan; carry out several measurements and monitoring of gas, elimination of the risk of entrapment, conducting of a toolbox meeting.
- B. Marking/cordoning off of the immediate vicinity, removal of obstacles in the surrounding area (for emergency workers), conducting a Last-Minute Risk Analysis (LMRA).
- C. Preparation of the area in accordance with a safety plan, ensuring the presence of thermal insulation measures, ensuring the availability of PPE and tools, reading of the Permit to Work.

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## QUESTION 4

**Which additional control measures must be conducted before working in a confined space?**

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A. A manhole observer must be present.

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B. A supervisor must be present.

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C. All hoses must be coupled in the confined space.

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## QUESTION 5

**What should you be aware of when working in a confined space?**

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A. The preference for use of air-powered tools. Only devices and equipment that run on 50V alternating current should be used. (Always ask your company about their specific rules)

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B. Ensuring that the space has oxygen tanks in the event of oxygen deprivation.

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C. The requirement to wear a personal locator beacon.

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## ANSWER 5

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