

Confined space awareness

Entry into a confined space is dangerous and potentially hazardous. Accidents in confined spaces kill several people every year.

Some confined spaces are easy to identify (such as closed tanks, vessels and sewers). Others are less obvious (like lofts, attics, open-topped tanks, vats and silos), but may be equally as dangerous.

At the planning stage, it will be necessary to identify whether an entry into the confined space is required, or whether there is an alternative method of doing the work.

If entry into a confined space cannot be avoided, a safe system of work must be implemented.

This can be achieved by using a permit-to-work system, in which each step is planned and all foreseeable hazards are taken into account. The permit system, backed up by adequate rescue facilities, should enable work to be carried out safely.



Danger
Confined space

No unauthorised entry

Permit to work must be obtained

What to consider before confined space work starts

Make sure that a permit to work is in place to:

- ensure that a formal check is undertaken, to make sure that all of the elements of a safe system of work are in place before work starts
- help condense the key elements from the risk assessment down for the workers
- ensure that a means of communication between site management, supervisors and workers is in place, so that a competent person is satisfied that all necessary precautions have been taken to secure the health and safety of those carrying out the task.

If the work is going to involve the use of breathing apparatus, then extra checks and controls need to be in place specific to the type of equipment and the work being carried out.

Essential features of a permit to work include the following.

- Clear identification of who may authorise particular jobs, and who is responsible for specifying the necessary precautions.
- Ensuring that contractors engaged to carry out the work are included.
- Training and instruction in the issuing of permits.
- Monitoring and auditing to make sure that the permit is working as intended.
- Presenting the permit in a clear, suitable format and not in a confusing or complex way.
- Communication of all relevant information, including the hazards and controls, to all personnel involved.

Essential points to consider for a permit to work

- A safe system of work being in place, communicated to everyone involved, and signed by all personnel to acknowledge their understanding.
- Adequate emergency arrangements being in place before work starts, which will also safeguard rescuers.
- A permit to work being in place and completed (this must be done).
- Securing barriers around/cordoning off the space, and ensuring that there can be no unauthorised access.
- Isolating the workplace from electrical, mechanical, chemical, heat and all other external sources of danger.
- Checking that no inward leakage of gas, fumes, steam or liquids is possible.
- Cleaning, draining and purging the workplace, as necessary, for the type of work to be carried out and entry to be made.
- Monitoring the atmosphere for the duration of the work.
- Carefully checking any sludge or deposit that may harbour gas, fumes or liquids.
- If at any time atmospheric monitoring indicates danger, the work must be stopped, and the process evaluated before continuing.
- Ensuring that all tools and equipment are safe to use in the area.
- Checking the provision of protective clothing, harnesses, lifelines, rescue equipment and rescue personnel.
- Making sure that rescue personnel are trained in the use of the equipment, and are capable of using it.
- Ensuring that rescue equipment and personnel are readily available for the duration of the work.
- If appropriate, ensuring that the fire and rescue service is informed of the location and type of work being carried out.
- Briefing all personnel on what is to be done, and arranging communications.
- Constantly monitoring the workspace and communications.

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