

Confined Spaces: Management Briefing

The Confined Spaces Regulations 1997 define a confined space as: 'any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk'. Confined space accidents are frequently fatal usually involving several employees being killed, often as a result of inadequately trained or equipped staff attempting a rescue without realising the dangers.

The foreseeable specified risks are:

- the space may contain potentially, hazardous substances and/or atmospheres which may include a lack of oxygen (for example in a drain or in a storage vessel, or carbon monoxide generated naturally in wood pellet store)
- the risk of fire or explosion
- conditions of engulfment or entrapment may exist by a free flowing solid, such as grain in a grain silo
- the risk of drowning caused for example by flooding
- the risk from an increase in body temperature due to the conditions in the confined space.

The key requirements of the Regulations are:

- avoid entering the confined space if it is reasonably practicable to do so
- if entry is necessary it must be undertaken in accordance with a safe system of work which must include appropriate equipment, relevant isolation of the confined space, and specifically the training of staff
- before a confined space entry takes place there must be emergency arrangements in place for rescuing persons, which must consider any risks to the rescuers, for example breathing apparatus and persons trained in its use are always necessary for those undertaking a rescue if there is a risk from a toxic atmosphere or lack of oxygen
- rescue arrangements have to be adequate for any emergency not only those associated with specific confined space hazards. For example the rescue arrangements should be adequate to deal with a person becoming ill
- where resuscitation of any person is a likely consequence of a relevant specified risk then resuscitation equipment must be provided.

Legal duties

The main areas of health and safety law relevant to confined spaces are:

- The Health and Safety at Work Act 1974
- The Management of Health and Safety at Work Regulations 1999
- The Confined Spaces Regulations 1997
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
- The Control of Substances Hazardous to Health Regulations 2002.

Staff training

Staff who may enter confined spaces or who need to be aware of the dangers must be individually identified, informed and instructed about the potential hazards and trained in the relevant safe system of work, safety equipment and rescue arrangements.

Safety equipment will generally include gas monitors, access and rescue equipment and breathing apparatus and in some cases powered portable ventilation. A Permit to Work system, to control the work, is normally adopted.

All training will need to be regularly refreshed and training records kept.

Risk assessment

A suitable and sufficient risk assessment must be undertaken before any confined space work commences and this should be undertaken by a competent person who has received detailed training on how to assess confined space hazards and identify specific precautions.

Case Law

A company was fined £533,000 and ordered to pay costs of £200,000 in July 2009 following two deaths at a manufacturing plant.

The court heard that the company's Works Manager and Maintenance Engineer were found collapsed on the stairs leading to a concrete-lined pit into which argon gas had leaked from a large pressure vessel. The pit's oxygen alarm system was switched off and the ventilation system was not running.

On the day of the incident, the ventilation system, which could have removed the leaking argon before it became a problem, and the oxygen alarm system, which would have warned of the oxygen-depleted atmosphere, were not switched on.

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