

CONFINED SPACES REGULATIONS 1997

Definitions within the regulations

'CONFINED SPACE' (CS) means any place, including any chamber, tank, vat, silo, pit, trench, sewer, flue, well or other space which, because it is enclosed, gives rise to a reasonably foreseeable 'specified risk'.

'Specified risk' means a risk to a person at work of:

- serious injury from fire or explosion
- loss of consciousness due to an increase in body temperature
- loss of consciousness or asphyxiation from gas, fume, vapour or lack of oxygen
- drowning due to an increase in the level of liquid
- asphyxiation because of a free flowing solid.

DUTIES (Regulation 3): Employers shall:

- comply regarding any work carried out by their employees
- ensure (SFARP) that other persons comply regarding work within the employer's control.

Risk assessment: where work in a confined space has to take place, the risk assessment will need to identify the risks to those working there and others, including contractors and the general public in the vicinity, who could be affected by the work. This assessment, upon which a safe system of work will be based, will need to be done by a competent person and take account of the general condition of the CS to identify what might, or might not, be present including:

- previous contents of the CS
- residues
- contamination
- oxygen deficiency and oxygen enrichment
- physical dimensions
- the use of cleaning chemicals
- possible sources of ignition
- ingress of substances from adjoining processes or services
- emergency rescue arrangements.

PREVENTING THE NEED FOR ENTRY (Regulation 4): A CS should only be entered if it is not reasonably practicable to complete the work in any other way. Employees, or others under the employer's control (such as contractors), must be prevented from entering or working inside a CS if it is reasonably practicable to undertake the work without entering the space. In every situation the employer (or the self-employed), must consider what measures (e.g. modifying the space or changing procedures) can be taken to enable the work to be carried out without the need to enter the CS.

CONFINED SPACES REGULATIONS 1997

No person at work should enter, work in, or leave a CS (except for leaving in emergency) without following a safe system of work. The precautions required in a safe system of work will depend on the nature of the CS and the risk assessment. The main elements to consider when designing a safe system of work, and which may form the basis of a 'permit-to-work' are:

- supervision;
- competence;
- communications;
- testing/monitoring the atmosphere;
- gas purging;
- ventilation;
- removal of residues;
- isolation from gases, liquids and other flowing materials;
- isolation from mechanical and electrical equipment;
- selection and use of suitable equipment;
- PPE and RPE;
- portable gas cylinders and internal combustion engines;
- gas supplied by pipes and hoses;
- access and egress;
- fire prevention;
- lighting;
- static electricity;
- smoking;
- emergencies and rescue;
- limited working time and suitability of individuals for the work.

EMERGENCY ARRANGEMENTS (r5): Persons at work shall only enter or work in a CS if there are suitable and sufficient rescue arrangements in case of emergency. These arrangements shall:

- reduce the risks (SFARP) to any person required to put rescue arrangements into operation
- include providing and maintaining resuscitation equipment, where it is likely to be required because of 'specified risks.'

Arrangements for emergency rescue will depend on the nature of the CS, the risks identified and the likely nature of an emergency rescue.

To be suitable and sufficient the arrangements should include consideration of:

- rescue and resuscitation equipment;

CONFINED SPACES REGULATIONS 1997

- raising the alarm and rescue;
- safeguarding the rescuers;
- fire safety;
- control of adjacent or nearby plant;
- first aid;
- public emergency services;
- training and the size of openings to allow safe access and egress.

RPE is not normally suitable unless it is breathing apparatus. Other equipment such as ropes, harnesses, fall arrest gear etc. should also be suitable for the purpose (taking account of appropriate standards) and be properly maintained.

Training: training for work in confined spaces will depend on an individual's previous experience and the type of work they will be doing and is likely to include:

- the requirements of the regulations especially the need to avoid entry as far as reasonably practicable
- an understanding of the work, associated hazards, and necessary precautions
- an understanding of safe systems of work, and 'permits-to-work'
- how emergencies arise, the need to follow prepared emergency arrangements, and the dangers of not doing so (including specific training for those likely to be involved in emergency rescue).