

CONFINED SPACES

(See also: [Motor Vehicle Repair\(55\)](#))

CONFINED SPACES

INTRODUCTION

Work in confined spaces is governed by the Confined Spaces Regulations 1997. Under these regulations a confined space is defined 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 [from hazardous substances or conditions].'*

An average of 15 people a year are killed at work in confined spaces.

The term 'confined space' has a wide application throughout industry covering a great variety of workplaces that have **limited** access and **inadequate ventilation**. (This may for example also include closed or unventilated rooms.) They are therefore potentially dangerous places in which to work because they may trap hazardous concentrations of toxic or flammable gases or vapours. Confined spaces can also be liable to become deficient in oxygen due to the build-up of a gas or vapour, which is not itself toxic, but which displaces the breathable air and acts as an asphyxiant. Examples of substances that may be encountered in confined spaces in the local authority-enforced sector include acetylene, LPG, carbon monoxide, petrol and welding fumes.

The special conditions of working in confined spaces make it essential that work should be planned in detail and subject to a suitable and sufficient risk assessment. Questions that must be considered include:

1. Is it practicable to **substitute safer materials** than those which are producing the dangerous atmosphere?
2. Could **alternative methods of work** be adopted which would not give rise to hazards? i.e. could the hazard be located out of the confined space (e.g. petrol/diesel engines to be outside in a well ventilated area).
3. What **safe system of work** is to be employed?

Booklet L101 (Safe work in confined spaces) contains an Approved Code of Practice (ACoP) and guidance on the Confined Spaces Regulations 1997. The following summarised advice is taken from the booklet, which is recommended to all businesses whose work activities include work in confined spaces.

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RISK ASSESSMENT

Where it is not reasonably practicable to prevent work in a confined space, a risk assessment must be carried out by a competent person (someone with sufficient experience of, and familiarity with, the work). Factors to be assessed will include:-

- (a) the general condition of the confined space (previous contents, residues, contamination, oxygen deficiency and oxygen enrichment, physical dimensions).
- (b) hazards arising from the work to be undertaken.
- (c) the need to isolate the confined space to prevent dangers arising from outside (e.g. from the ingress of substances).
- (d) the requirements for emergency rescue arrangements.

PREVENTING THE NEED FOR ENTRY

Employees and others (e.g. contractors) should be prevented from working inside a confined space where it is reasonably practicable to do so. In many cases this may involve changing working practices.

SAFE WORKING IN CONFINED SPACES

Where it is not reasonably practicable to avoid entering a confined space to undertake work, a safe system of work must be ensured. Priority should be given to eliminating the source of any danger before deciding what precautions are needed for entry. The precautions required will depend on the nature of the confined space and the risk assessment. The main elements to consider (and which may subsequently form the basis of a 'permit-to-work') may include:-

- Supervision
- PPE and RPE
- Competence for confined space working
- Portable gas cylinders and internal combustion engines
- Testing/monitoring the atmosphere
- Gas supplied by pipes and hoses
- Gas purging
- Access and egress
- Ventilation
- Fire prevention
- Removal of residues
- Lighting
- Isolation from gases etc.
- Static electricity
- Isolation from mechanical and electrical equipment
- Smoking
- Selection and use of suitable equipment
- Emergencies and rescue
- Limited working time.

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Advice/guidance on all of these is contained in booklet L101. There is also guidance on **emergency procedures** (rescue/resuscitation equipment, raising the alarm, safeguarding the rescuers, fire safety, control of plant, first aid, public emergency services and training), **plant and equipment and training**.

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CHECKLIST - CONFINED SPACES

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|---|-----|----|
| 1. Have you established if any work activity may take place in a confined space? | YES | NO |
| 2. It is reasonably practicable to prevent such work in a confined space (e.g., by modifying working practices)? | YES | NO |
| 3. If not, has a risk assessment been carried out by a competent person? | YES | NO |
| 4. Have you established a safe system of work for working in the confined space? | YES | NO |
| 5. Have you established emergency procedures? | YES | NO |
| 6. Have you examined safety considerations relating to plant and equipment (including RPE)? | YES | NO |
| 7. Do you provide such information, instruction, training and supervision as is necessary for individuals working in confined spaces? | YES | NO |

REFERENCES/FURTHER DETAILS

- *1. Booklet L101 - Safe work in confined spaces (Confined Spaces Regulations 1977 - Approved Code of Practice, Regulations and Guidance). (HSE) ISBN 0-7176-1405-0
- *2. Guidance Note EH43 - Carbon Monoxide (HSE) ISBN 0 7176 1501 4.
- *3. Leaflet IND(G)258 - Safe work in confined spaces (HSE) ISBN 0 7176 1442 5. www.hse.gov.uk/pubns/indg258.pdf

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- * Available to view by prior arrangement at Nuneaton and Bedworth Borough Council, Environmental Health Services, Council House, Coton Road, Nuneaton. CV11 5AA
 - ** Free copy available from Nuneaton and Bedworth Borough Council at the above address.

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