



## Safe Entry Into Confined Spaces Training

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## SAFE WORK IN CONFINED SPACES

Confined Space Regulations 1997

Approved Code of Practice, Regulations and Guidance.

The regulations apply in all premises and work situations in Great Britain subject to the HSW act, with the exception of diving operations and below ground in a mine.



## What is a Confined Space ?



“Confined Space” Means Any Place, Including Any Chamber, Tank, Vat, Silo, Pit, Trench, Pipe, Sewer, Flue, Well or Other Similar Space in Which, by Virtue of It’s Enclosed Nature, There Arises a Reasonably Foreseeable Specified Risk.



## Specified Risks



“Specified Risk” Means a Risk of:-

Serious Injury to Any Person at Work Arising From a Fire or Explosion;

The Loss of Consciousness or Asphyxiation Due to Increase in Body Temperature;

## Specified Risks (cont)



The Loss of Consciousness or Asphyxiation of Any Person at Work Arising From, Gas, Fume, Vapour or the Lack of Oxygen.

## Specified Risks (cont)



The Drowning of Any Person at Work Arising From an Increase in the Level of Liquid.

## Specified Risks (cont)



The Asphyxiation of any Person at Work Arising From Free Flowing Solid or the Inability to Reach a Breathable Environment Due to Entrapment by a Free Flowing Solid.

Some confined spaces are fairly easy to identify, e.g enclosures with limited openings:

*Storage tanks, silos, reaction vessels, enclosed drains and sewers.*

Others may be less obvious, but can be equally dangerous, for example:

*Open-topped chambers, vats, combustion chambers in furnaces, ductwork and even unventilated or poorly ventilated rooms.*



Some places may become confined spaces when work is carried out, or during their construction, fabrication or subsequent modification

## Common Features of a Confined Space



A Space With Restricted Ventilation, Which Can Harbour a Dangerous Atmosphere and Where the Limited Access Would Hamper a Persons Escape Route. A Space Which Is Not Designed for Human Occupancy.

## Limited Access

Is it big enough to allow workers wearing all the necessary equipment to climb in and out easily, and provide ready access and egress in the event of an emergency ?. For example, the size of the opening may mean choosing air-line breathing apparatus in place of self contained equipment which is more bulky and therefore likely to restrict passage.



## Confined Space Hazards



Flammable Substances.

The Ingress or Presence of Liquids.

Oxygen Enrichment.

Solid Materials Which Can Flow

Toxic Gas Fume or Vapour.

Presence of Excessive Heat.

Oxygen Deficiency.

Physical Injury.

Medical Conditions.

## Preventing the Need for Entry



No Person at Work Shall Enter a Confined Space to Carry Out Work for Any Purpose Unless It Is Not Reasonably Practicable to Achieve That Purpose Without Such Entry.

## Duties with Regard to the Design



Where Plant and Equipment Unavoidably Include Confined Spaces, Designers, Manufacturers, Importers, Suppliers, Erectors and Installers Should Eliminate or, Where This Is Not Possible, Minimize the Need to Enter Such Spaces Both During Normal Use or Working and for Cleaning and Maintenance.



## Safe Working in Confined Spaces (cont)



Supervision.

Gas Detection.

Communications.

Ventilation.

Gas Purging.

Isolation.

Removal of Residues.

P.P.E.

Selection and Use of Suitable  
Equipment.

R.P.E.

Competence

Gas Supplies



## Safe Working in Confined Spaces (cont)



Access and Egress

Fire Prevention

Lighting

Static Electricity

Emergency / Rescue

Limited Working Time

## Emergency Arrangements Reg 5.



No Person at Work Shall Enter or Carry Out Work in a Confined Space Unless There Have Been Prepared in Respect of That Space Suitable and Sufficient Arrangements for the Rescue of Persons in the Event of an Emergency, Whether or Not Arising Out of a Specified Risk.

## Emergency Arrangements Points to Consider



Raising the Alarm

Public Emergency Services

Rescue and Resuscitation Equipment

Safeguarding the Rescuers

Fire Safety

Control of Plant

First Aid

Training

Paperwork system requirements for work in confined spaces to include:

Risk Assessments

Safe systems of work

Permit to work procedures

Emergency arrangements

Specific training for work in confined spaces will depend on an individual's previous experience and the type of work they will be doing. It is likely that this training will need to cover:

An awareness of the Confined Space Regulations and in particular the need to avoid entry to a confined space, unless it is not reasonably practicable to do so.

An understanding of the work to be undertaken, the hazards and the necessary precautions.

An understanding of safe systems of work, with particular reference to 'permits-to-work' where appropriate.

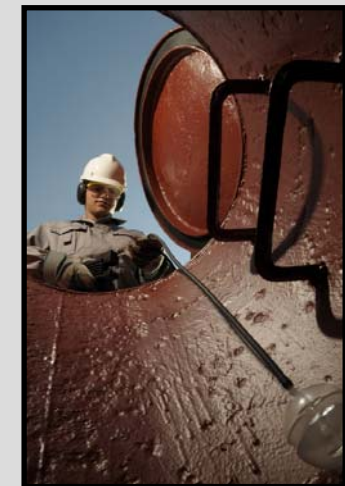
How emergencies can arise, the need to follow prepared emergency arrangements and the dangers of not doing so.

## Training cont

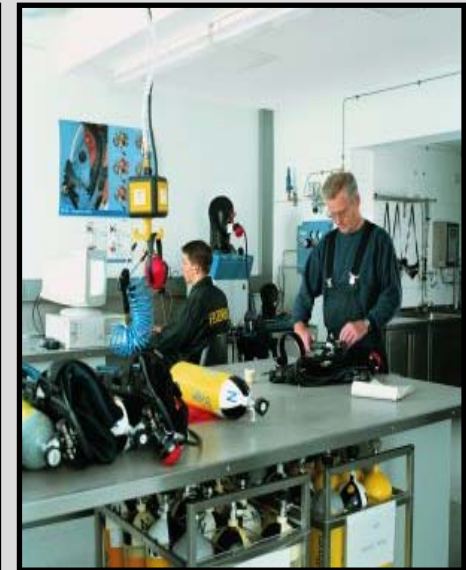
Training should also take into account the practical use of safety features and equipment, the identification of defects and where appropriate, it should involve demonstrations and practical exercises. Training in specific safety features may include any or all of the following:



## Use of atmospheric testing equipment and the action to take depending on their readings



## Use of breathing apparatus and escape sets (self rescuers), their maintenance, cleaning and storage





The use of other items of PPE, e.g. safety harnesses

Instruction in the communication methods to be used whilst in the confined space.



**Thank you for  
your attention.**