

# Wilkins Safety Group

## Weekly Update Newsletter



Welcome to this issue - Friday 3<sup>rd</sup> June 2011 - of our Update Newsletter

Please feel free to forward this newsletter to colleagues and friends.

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## Confined Spaces information

The term confined space covers a variety of workplaces. Traditionally we consider them to have limited access and inadequate ventilation however this has broadened and current interpretation of a "confined space" means any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar place in which, by virtue of its enclosed nature, there arises a reasonable foreseeable specified risk.

There are obvious confined spaces that are liable to become deficient in oxygen due to the build-up of gases and fumes, i.e. manholes and sewers. However less obvious would be a room whereby the atmosphere becomes dangerous due to the activity, i.e. use of a solvent glue in an unventilated room or welding. An open topped area could also be a confined space, therefore an excavation can be defined as a confined space because of the potential for methane gas to be present, contaminants to leech out of the ground, ingress of water or the use of a "two-stroke" disc cutter displacing the oxygen with carbon monoxide.

The Confined Spaces Regulations were introduced in 1997 due to the high number of incidents whereby people become injured. The general arrangements of the regulations require that:-

- the meaning of a confined space is recognised,
- that duties are placed on employers and employees,
- factors to be considered when undertaking risk assessments, where possible,
- preventing the need for entry into a confined space,
- safe working once in the confined space including a safe system of work,
- the suitability of the persons entering,
- emergency procedures including rescue and resuscitation equipment,
- raising the alarm and rescue,
- safeguarding the rescuers,
- fire safety, control of plant, first aid, public emergency services and training.

Any plant and equipment being of suitable size for entry with access and egress points, necessary respiratory protective equipment, any other equipment, maintenance and examination of the equipment including test certificates and examination records.



## Planning

### 1.1 risk assessment

If entry into a confined space is unavoidable it is essential to have a Safe System of Work for entering, working in and exiting the space. Use the results of the risk assessment to help identify the necessary precautions to reduce the risk of injury.

The elements to be addressed in confined space assessment are:-

- The general condition of the space and the surrounding area to identify what might be present or not present, i.e. what were the previous contents?
- Could they present a toxic or flammable hazard?
- Are there any residues, i.e. chemical salts, scale, rust or sludge could present a hazard when disturbed.
- Is external contamination an influencing factor, i.e. adjacent plant, processes, gas pipes, surrounding land, soil and strata, leachate or weather.
- Does oxygen deficiency or enrichment present a hazard?

The hazards arising directly from the work to be undertaken in the space, i.e. chemicals used for cleaning or surface treatment purposes can present an immediate or secondary hazard by reaction with substances in or around the space. Welding inside a confined space creates fumes and offers a source of ignition to

dusts, residues and other materials which may be present. Welding outside the space may ignite materials in contact with the inside wall of the space.

To prevent dangers from outside there is a need to isolate the space. Inadvertent operation of machinery, accidental/automatic delivery of product or third party intrusion must be prevented.

The provision of emergency rescue and first aid arrangements is essential.

A safe system of work is required that includes the precautions identified, which are developed and put into practice. Everyone involved should be properly trained and instructed to ensure that they understand what to do and how to do it safely.

Another item that is often overlooked is the risk of the "top man" suffering an injury by falling down the opening. Also, the risk of injury from a fall, whilst climbing up and down a ladder, particularly if vertical. The wearing of a safety harness and connection to a fixed object or safety line respectively is recommended.

In the preparation of a safe system of work the following should be considered;



## Safe Working Procedures

### ***Appointment of a supervisor***

Supervisors should be given responsibility to ensure that the necessary precautions are taken, to check safety at each stage and may need to remain in attendance while work is underway. It will be the supervisor's role to ensure that the permit to work system, where applicable, operates properly and that anyone working in the vicinity of the confined space is informed of the work undertaken.

### ***Competency and suitability of workforce.***

Certain factors require consideration when selecting the persons to enter a confined space;

- do they have sufficient experience of the type of work to be carried out,
- what training have they received,
- when risk assessment highlights exceptional constraints as a result of the physical layout, are individuals of suitable build, i.e. medical fitness etc.

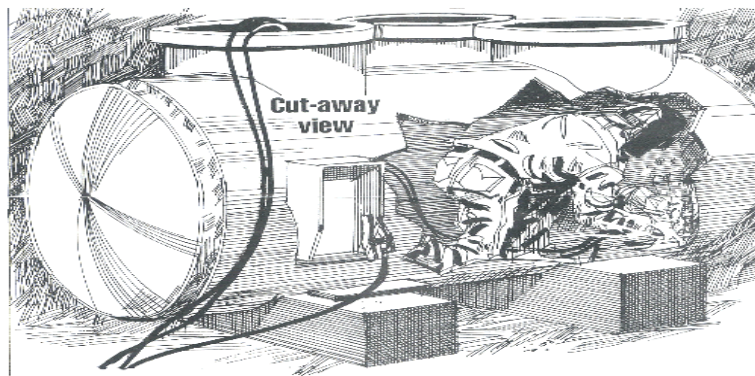
7 Training standards must be appropriate to the task, and to the individual's roles and responsibilities.

Persons with any of the following disabilities should not be recruited for work in confined spaces. Also any persons already engaged in such work should cease to be employed in this type of work. The disabilities to be monitored are:-

- Claustrophobia or other nervous or mental disorder.
- History of fits, blackouts or fainting attacks.
- History of heart disease or disorder.
- High blood pressure.
- Asthma, bronchitis or a shortness of breath on exertion.
- Menieres disease or disease involving giddiness or loss of balance.
- Back pain or joint trouble that would limit mobility in confined spaces.
- Deformity or disease of the lower limbs, limiting movement.
- Chronic skin disease.
- Deafness.
- Serious defect in eyesight.
- Lack of smell.

Other consideration should include persons who normally wear a beard or sideburns, spectacle or contact lens wearers and the age of the person expected to undertake work in confined spaces.

Employees should be medically re-examined at reasonable intervals taking into account the person's age and duties. If there is any doubt about the fitness of any individual for confined space work specialist medical advice should be sought.



### **Communications**

An adequate system is needed to enable communication between people inside and outside the space. There are several systems that can be used i.e. speech, tugs on rope, air horns, hard wire system, telephone, radio, etc. It is important that all messages can be communicated easily, rapidly and unambiguously between relevant people. Special provision may be necessary for wearers of breathing apparatus. Equipment such as telephones and radios should be intrinsically safe as appropriate.

Also the provision of equipment for those outside to raise the alarm and set in motion emergency procedures.

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If you would like to discuss any of the issues highlighted in this newsletter, then drop an email to Jon on [jon@jonwilkins.co.uk](mailto:jon@jonwilkins.co.uk) or call the office 01458 253682



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