

Think Safety...!

**trac**



# Confined Space July 2014

Service • Safety • Quality • Innovation

# Think Safety...!

**trac**



## How Are We Doing?

**LTI's - 0 in last 12 months**

Location Period	Oil & Gas Base AFR	Oil & Gas Sites AFR	Total AFR
May	0	0	0
12 Month Rolling	0	2.14	1.35

- Statistics presented one month in arrears.
- AFR includes first aid/ medical treatment cases.
- $AFR = (Accidents / Manhours) \times 100,000$

**Service • Safety • Quality • Innovation**

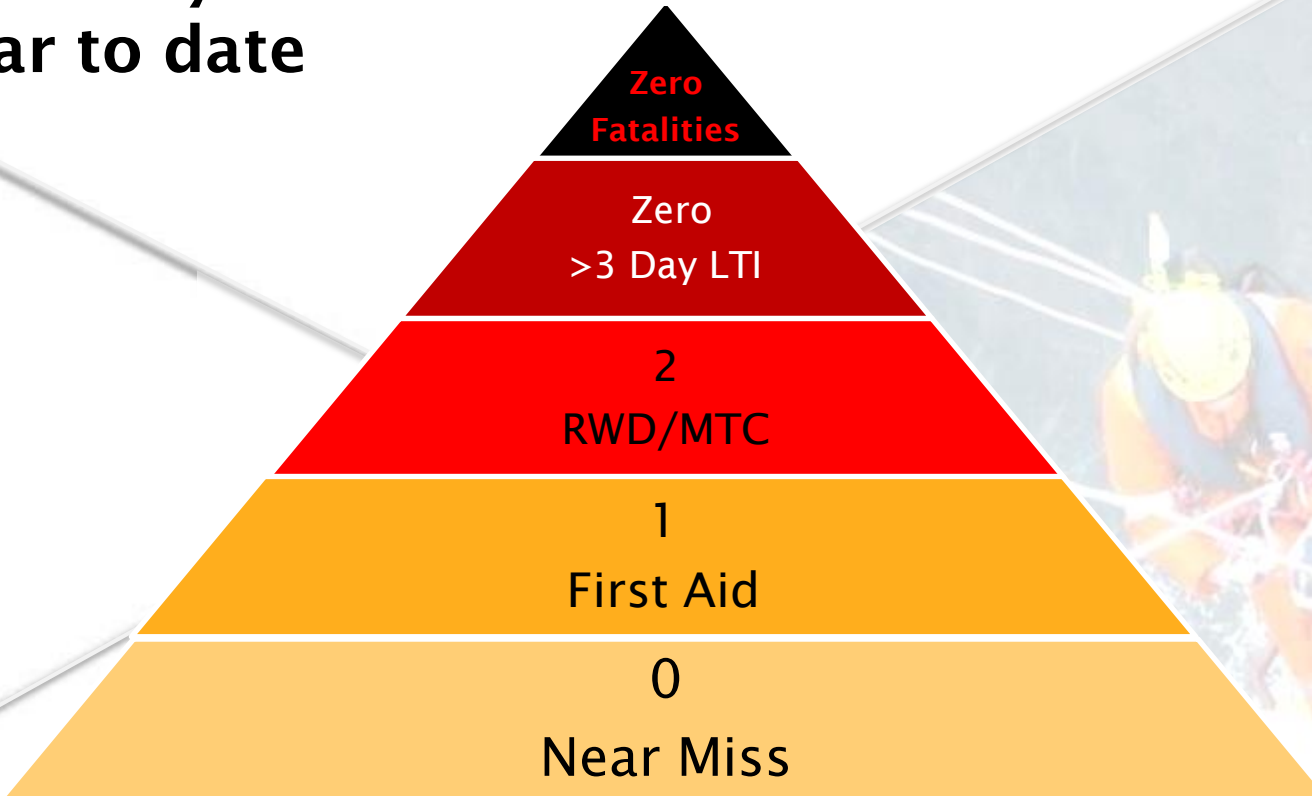
# Think Safety...!

**trac**



## How Are We Doing?

### Summary of incidents year to date



Service • Safety • Quality • Innovation

# Think Safety...!

trac



## Confined Space

Entry into confined spaces is extremely hazardous as a result of:

- Restricted ability for movement
- Higher than normal risk of fire, explosion or flood
- Asphyxiation from being submerged under liquid or flowing dry materials
- Lack of oxygen or poisonous gases/fumes

A number of people are killed or seriously injured in confined spaces each year in the UK.

Those killed include people working in the confined space **and** those who try to rescue them without proper training and equipment.



Service • Safety • Quality • Innovation

# Think Safety...!

**trac**



## What is a Confined Space?

A confined space is a space of an enclosed nature, where there is a risk of death or serious injury from hazardous substances or dangerous conditions.

Confined spaces may include:

- Storage tanks
- Silos
- Enclosed drains
- Sewers
- Open-topped chambers
- Vats
- Ductwork
- Unventilated/poorly ventilated rooms
- And many more...



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

# Think Safety...!

The logo for 'trac' is displayed in a black diamond shape with the word 'trac' in yellow lowercase letters.

## Relevant Legislation

The risks and controls associated with confined spaces are specified in the Confined Spaces Regulations 1997.

The main requirement of these regulations is to avoid the need to enter a confined space wherever possible. If entry is necessary, you must ensure an adequate safe system of work is in place, including contingency plans for emergencies and rescue.

Other relevant legislation includes:

- Control of Substances Hazardous to Health Regulations 2002
- Dangerous Substances and Explosive Atmospheres Regulations 2002
- Management of Health and Safety at Work Regulations 1999
- Personal Protective Equipment at Work Regulations 1992
- Health and Safety at Work, etc. Act 1974

Service • Safety • Quality • Innovation

# Think Safety...!

trac



## Do's and Don'ts

### Do...

- be aware of risks that may occur within a confined space
- make sure the person doing the work is capable and trained in both the work and the use of any emergency equipment

### Don't...

- work in confined spaces unless it's essential to do so
- ignore the risks - just because a confined space is safe one day doesn't mean it will always be
- let others enter a confined space until you're sure it's safe!



Service • Safety • Quality • Innovation

# Think Safety...!

trac



## Hazards

Dangers can arise in confined spaces because of the following issues:

### *Lack of oxygen:*

- Where there is a reaction between some soils and oxygen in the atmosphere
- Following the reaction of groundwater on chalk and limestone which can produce carbon dioxide and displace normal air
- In ships' holds, freight containers, lorries etc. as a result of the cargo reacting with oxygen
- Inside steel tanks and vessels when rust forms

### *Poisonous gas/fume/vapours:*

- Can build-up in sewers, manholes and in pits connected to the system
- Enter tanks or vessels from connecting pipes
- Leak into trenches and pits in contaminated land, such as old refuse tips and old gas works
- Be given off by residues left in tanks, vessels etc., or remaining on internal surfaces

Service • Safety • Quality • Innovation



# Think Safety...!

trac



## Hazards (contd.)

- Liquids and solids can suddenly fill the space, or release gases into it when disturbed.
- Fire/explosion may occur due to flammable vapours, excess oxygen, etc.
- Dust may be present in high concentrations e.g. from grinding/blasting.
- Hot conditions can lead to a dangerous increase in body temperature.

Some of these conditions may already be present, some may arise from the work being carried out or because of ineffective isolation of plant nearby e.g. leakage from connected pipes. The confined space may increase other dangers arising from the work being carried out, for example:

- Machinery may require special precautions e.g. dust extraction for grinders or special precautions against electric shock;
- Gas, fumes or vapour can arise from welding or use of volatile and often flammable solvents, adhesives, etc.
- If access to the space is through a restricted entrance, escape or rescue in an emergency will be more difficult.

Service • Safety • Quality • Innovation

# Think Safety...!

trac



## Controlling the Risks

**Avoid entering confined spaces** - You must check if work can be done another way to avoid entry to confined spaces. When planning work you should assess if a different approach can reduce the need for confined space working.

Ask yourself if entry to the space is really necessary, could you:

- Modify the confined space itself so that entry is not necessary?
- Complete the work from outside the confined space?
  - inspection, sampling and cleaning can often be done from outside the space using appropriate equipment and tools
  - remote cameras/ROVs can be used for internal inspection of vessels/tanks/etc.



Service • Safety • Quality • Innovation

# Think Safety...!

**trac**



## Safe systems of work

If you cannot avoid entry into a confined space, make sure you have a safe system for working inside the space.

Use your risk assessment to identify precautions you need to take to reduce risk of injury. These will depend on the nature of the confined space, the associated risks and the work involved.

Make sure the safe system of work, including precautions identified, is developed and put into practice.

Everyone involved must be properly trained and instructed to make sure they know what to do and how to do it safely.



**Service • Safety • Quality • Innovation**

# Think Safety...!

trac



## Permit to Work

- Prior to entering any confined space/vessel, permission must have been granted by the site owner/operator.
- This permission should be agreed in writing and signed for either on a permit-to-work or otherwise.
- Should personnel be unable to obtain such written confirmation, works must not proceed.



Service • Safety • Quality • Innovation

# Think Safety...!

trac



## Emergency Procedures

Emergency arrangements must be made **before** entry to a confined space. The arrangements must be put into immediate operation when needed e.g. rescue equipment must be set up ready for immediate use.

The arrangements must consider all stages of the work, and the training/experience of those involved.

Emergency arrangements must consider:

- rescue and resuscitation equipment
- raising the alarm and rescue
- safeguarding the rescuers
- fire safety
- control of plant
- first aid
- emergency services
- training of those to be involved



Service • Safety • Quality • Innovation

# Think Safety...!

**trac**



## TRAC Systems

Relevant Procedures:

- TRACPROC C01 - Safe Working procedure
- TRACPROC C07 - Project Management Procedure
- TRACPROC C08 - Hazard ID and Risk Assessment procedure
- TRACPROC G02 - Confined Space/Vessel Entry procedure
- TRACPROC I/OG 01 - Rope Access Safe Working procedure

Relevant Forms:

- TRACFORM C07.35 - OG Job Information and Team Leader Checklist
- TRACFORM C08.01 - Risk Assessment
- TRACFORM G02.01 - Confined Space Entry Checklist
- Job specific documentation - Method Statement, Safe systems of Work, Permit to Work, Rescue Plan, etc.

[www.tracoilandgas.com](http://www.tracoilandgas.com)

Service • Safety • Quality • Innovation

# Think Safety...!

**trac**



## Topics Covered In 2014

- January - Waste Management
- February - Quality Principles
- March - Driving
- April - Drug & Alcohol Awareness
- May - Job Preparation - Quality
- June - Safe Use of Ladders

**If you have missed any of these presentations or would like to review a topic again then please contact your line manager.**

# Think Safety...!

**trac**



## Your behaviour makes a difference

**Look after yourself**

**Look out for others**

**Use safety equipment**

**Follow safety procedures**

**Service • Safety • Quality • Innovation**