

## WORK IN CONFINED SPACES

### SUMMARY

At the 44<sup>th</sup> SSHSCC meeting the circumstances of the Glomar Artic double fatality were discussed. Since the meeting a court case has been heard regarding work in confined spaces and a serious incident involving confined spaces has also occurred. This paper continues the discussion begun at the last meeting.

### BACKGROUND

1. Paper SSHSCC/44/A outlined the circumstances of the fatal accident onboard the Glomar Artic oil rig and highlighted the main concerns identified by the fatal accident inquiry. The concerns related to management/supervision, risk assessment, work in confined spaces, means of access/egress, entry certificate/permit to work, the workforce, gas hoses and the emergency response.

2. The paper also identified a number of the recommendations made by the Sheriff which were:

**a) *Confined Spaces Regulations*** - consideration should be given to amending the Regulations or the ACoP to take account of:

- whether persons should be permitted to carry out work in a confined space where flammable gases or oxygen is to be used without a safe means to regulate the supply of these gases to the confined space. This should be achieved by a remote start system operated out with the confined space so that the supplies of gas to the confined space are only live when the gas is actually required for flame cutting etc.;
- whether such work should be permitted without the presence of suitable and sufficient atmospheric monitoring equipment and a person sufficiently trained in its use so that the presence of oxygen deficiency or enrichment or the presence of toxic or flammable gases can be detected;
- whether such work of a planned nature should be permitted without an effective and properly operated permit to work system;
- whether prior to any person being permitted to issue or monitor a permit to work they should be required to pass a written test of competence in the particular permit system and in the importance generally of the permit system;

**b) *Those who operate a permit to work system should consider:***

- the adequacy of their system for cross referring permit to works to the associated risk assessment, entry certificate etc.

- when deciding upon appropriate precautions to specify the exact precautions required i.e. 3 fire extinguishers of the dry foam type to be located within the confined space rather than using a “tick box” approach;
- whether there are any circumstances where revalidation of a permit should be permitted; and
- whether communication of information from manager to manager, supervisor to supervisor and tradesman to tradesman at shift changeovers is adequate or requires to be formalised.

**c) *General consideration should also be given to:***

- whether hot work in a confined space, the installation of hot work equipment, the maintenance, connection and disconnection of such equipment, the supervision of such work and the preparation of a risk assessment of such work should only be undertaken by tradesmen holding an appropriate certificate of competence;
- how the safety of temporary workers could be improved where the work site is constantly changing and there is an absence of continuity of employment such that there is a lack of safety of temporary workers;
- how to improve the quality of supervision, with particular regard to the safety of temporary workers; and
- whether there is a need for statutory provision to enable local fire services to have access for familiarisation exercises to ships whether for repair or upgrading, for a period in excess of seven days.

3. Owing to a shortage of time it was not possible to discuss the above recommendations at the meeting.

4. Since the last meeting a prosecution case has been heard resulting from a confined space incident where two painters were overcome by paint fumes. The painters were applying a solvent-based paint by brush in a confined space onboard a barge. During the application of the second coat solvent fumes overcame both men. One of the men was able to escape and was found in a drunken like state, the other man was found unconscious in the compartment where they had been working.

5. Many of the concerns identified during the resulting accident investigation were common to those identified during the investigation of the Glomar Artic incident. In particular, the company:

- failed to adequately train, instruct and supervise the two men in confined space work;
- did not take adequate steps to make sure that written safety procedures requiring the use of extraction and respiratory protective equipment were followed;
- failed to provide the shift supervisor with adequate training on the safety procedures to be followed when carrying out painting within confined spaces (as a result when he visited the men whilst they were working he failed to identify the danger that they were in); and

- did not provide the two painters with a suitable means of communication such as a radio link for raising the alarm in the event of an emergency.

6. Following the incident measures taken by the company included:

- ensuring that its staff had received training on how to safely carry out painting operations in confined spaces; and
- carrying out suitable risk assessments for each individual painting operation.

7. The company were fined £10 000 under Section 2(1) of the Health and Safety at Work etc Act 1974 for failing to ensure the health and safety of employees and were also ordered to pay costs of £6 627.

8. Since the last meeting a further confined space incident has occurred in a shipyard. 2 employees of a construction firm were overcome by carbon monoxide fumes when using a petrol powered, road cutter in a tented enclosure. The men were using the road cutter during excavation work to lay concrete foundations for new machinery. The purpose of the tent was to prevent the dust generated from escaping into the rest of the workplace.

## **ACTION**

9. Members are asked to:

- outline at the 45<sup>th</sup> meeting any action that they have taken with regards to work in confined spaces following on from the last meeting;
- note the recommendations made by the Sheriff and to discuss what their thoughts are on these recommendations; and
- note the circumstances of the prosecution case and the recent confined space incident and to identify what further action, if any, they need to take to prevent such incidents from happening in their yards.