

# LP BULLETIN

Friday 01 August 2008

## Bulletin 593 - 8/08 - Enclosed space entry - Worldwide

The UK Marine Accident Investigation Branch (MAIB) has published a Safety Bulletin concerning fatalities in enclosed spaces.

The Safety Bulletin reports that “since September 2007 the MAIB has started three investigations into accidents in which a total of six seafarers have died in enclosed/confined spaces.

The Marine Accident Investigators International Forum (MAIIF) identified the large number of fatalities in the shipping industry worldwide which were related to work in confined or enclosed spaces and considered that the occurrence of such accidents was increasing. To date, responses from 18 administrations identify 120 fatalities and 123 injuries resulting from entry into confined spaces since 1991.

### Safety lessons

There can be few aspects of personal safety on board ships that have received more attention than the importance of following the correct procedures before entering a dangerous enclosed/confined space. Tragically, it is clear that the measures which have been put into place have failed to prevent the death of many seafarers. Indeed, the data collected on behalf of MAIIF indicates that accidents in enclosed/confined spaces continues to be one of the most common causes of work-related fatalities on board ships today. This is due to:

- Complacency leading to lapses in procedure
- Lack of knowledge
- Potentially dangerous spaces not being identified
- Would-be rescuers acting on instinct and emotion rather than knowledge and training.”

Complacency, lapses in procedures, and acting on instinct and emotion rather than knowledge and training are recognised elements of human error. A human error incident is an unplanned event which occurs when an **uncontrolled hazard** meets an **undefended target**.

To learn more about the theory of human error, visit the Human Element pages of the Loss Prevention section of the Club website

[http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP\\_Init\\_HElement](http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP_Init_HElement)



The MAIB Safety Bulletin states “it is essential that the IMO recognises the unacceptably large fatality rate in this area and takes the lead in identifying initiatives to improve this very poor safety record. It is also vital that all shipping industry bodies raise the awareness of the continuing and increasing number of deaths in enclosed spaces to show that no-one is immune to the physical effects of the lack of oxygen or harmful gases. While the holding of breath might seem a logical step to a person entering a tank ‘for a few seconds’ or to a would-be rescuer, it is all too frequently the last life sustaining breath he or she ever takes.”

Incidents reported in MAIB Safety Bulletin 02/2008:

- On 23 September 2007, three experienced seamen died inside the chain locker on board the emergency response and rescue vessel Viking Islay. The first two were overcome while tying off an anchor chain to prevent it from rattling in the spurling pipe. The third to die was the first rescuer who entered the chain locker wearing an Emergency Escape Breathing Device (EEBD). He was

soon constrained by the device and removed its hood. All three men died as a result of the lack of oxygen inside the chain locker caused by the on-going corrosion of its steel structure and anchor chain.

- On 18 January 2008, two seamen collapsed in a store on board the general cargo ship Sava Lake. The chief officer entered the store to try and rescue the men but was soon forced to leave when he became short of breath and his vision narrowed. The two seamen had been asphyxiated. The store was adjacent to the vessel's forward cargo hold containing 'steel turnings'. To allow for the drainage of sea water and the removal of cargo residue, the bellows pieces on the cargo vent trunk either side of the cargo ventilation fan motor, located in the store, had been cut. This allowed a path for the air from the self-heating cargo, to enter the store. When tested, the air in the cargo hold contained only 6% oxygen.
- On 11 June 2008, an experienced seaman died on board the passenger cruise ship Saga Rose after he entered an almost empty ballast tank. The tank's manhole cover, which was inside a small cofferdam accessed from within the engine room, had been removed and the seaman had been instructed to confirm the tank's contents. As it was not intended for the seaman to enter the tank, no permit to work was issued. When the seaman was found to be missing, an experienced motorman was sent into the cofferdam to check on his wellbeing. He found the seaman lying at the bottom of the empty tank and raised the alarm. The motorman then entered the tank but collapsed when trying to recover the seaman. After the ship's emergency response team provided air to the stricken crew via in-line breathing apparatus, the motorman recovered and was able to leave the tank. However, the seaman never regained consciousness. He had been asphyxiated in the oxygen depleted atmosphere of the tank, which had not been inspected for several years and was heavily corroded. It is not certain why the seaman entered the tank but it is likely it was to determine whether a small amount of water in the tank bottom was salt or fresh water.

Use the following link to view the full text of the Safety Bulletin on the MAIB website

[http://www.maib.gov.uk/publications/safety\\_bulletins/safety\\_bulletins\\_2008/safety\\_bulletin\\_2\\_2008.cfm](http://www.maib.gov.uk/publications/safety_bulletins/safety_bulletins_2008/safety_bulletin_2_2008.cfm)

### Enclosed space entry procedures

The Association recently published Technical Bulletin No. 2008 which recommends an enclosed space entry system as seen on tankers entered with the Club.

The system requires everybody on board to have a name tag which is hung on a board at the access point to the space, whenever the person enters the space. Each access point to an enclosed space is also tagged with details of the enclosed space entry permit to work. There are strict requirements for the permit itself.

For full details, please view the Technical Bulletin which can be downloaded from the Loss Prevention area of the Club website

[http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP\\_Init\\_TechBulletins](http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP_Init_TechBulletins)



Source of information: UK P&I Club Loss Prevention Department  
Tel: +44 20 7204 2217  
Email: [lossprevention.ukclub@thomasmiller.com](mailto:lossprevention.ukclub@thomasmiller.com)  
Website: [www.ukpandi.com](http://www.ukpandi.com)