

Surveyor's notes



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The club carries out approximately 300 ship condition surveys each year, and occasionally during these surveys, we still see practices and procedures that never fail to astonish.

We highlight issues concerning tank entry, good housekeeping, fire and electrical safety, all of which are fundamental to maintaining a safe environment on board a ship.

1. Tank entry

Recently, on two separate occasions on different ships, our surveyors found, when asked to inspect a ballast tank, that there was no tank entry procedure followed. It is very difficult to understand how management would allow their personnel to enter a tank without any tank entry procedures being adhered to. This is failure of management ashore and on board the ship. It is a failure of corporate responsibility at the highest level in not ensuring that the safety of the personnel working for the company are working in a safe environment. It indicates that the ISM Code has not been implemented correctly and that the Flag State has failed in its duties when it issued the Safety Management Certificate.

Tank entry - case study

A passenger ferry docked in a European port and the surveyor asked to inspect a ballast tank. A tank was opened up without a tank entry permit and the officer in charge produced a H₂S (hydrogen sulphide) meter, which he duly waved over the tank access; he did not understand that this was not the correct meter to use.

Additionally, the H₂S meter had not been calibrated. There was no O₂ meter on board.



PORTABLE HAND HELD O₂ METRE

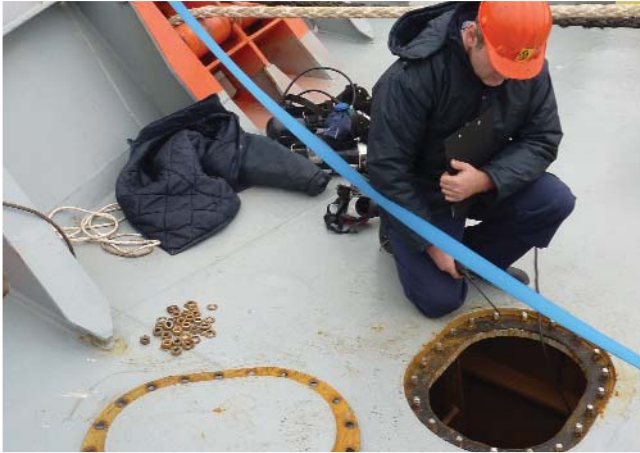
A H₂S meter is not suitable for ballast tank entry. A calibrated oxygen meter must be used.

When questioned, the captain went to his cabin and produced a meter still in its box. It was pointed out to the master that this meter was in fact a carbon monoxide meter and not an O₂ meter. It was therefore not appropriate for a water ballast tank entry. In order to carry out a safe ballast tank entry: the atmosphere should always be ventilated and tested for oxygen before entry.

Every company must have rigorous permit to work systems in place that include tank entry. The risks of not having proper tank entry procedures are well documented and result in the death of many seafarers each year.

Tank entry guidance can easily be found on the Internet if companies do not have an existing tank entry procedure:

- Recommendations for Entering Enclosed Spaces aboard ships. IMO Res/864 (20 7/11/1997)
- UK MCA Code of Safe Working Practices for Merchant Seamen



CHAIN LOCKER ACCESS



BALLAST TANK

Tank entry case studies available on the internet:

The UK Marine Accident Investigation Branch – MAIB
<http://www.maib.gov.uk>

The MAIB has highlighted, through the issue of a number of recent reports, incidents in which there were fatalities due to incorrect tank or enclosed space entry procedures being followed. It is recommended that these reports are accessed and evaluated to improve members' tank entry procedures.

MAIB Safety Bulletin – Enclosed Space:
http://www.maib.gov.uk/cms_resources.cfm?file=/SB2-08.pdf

Saga Rose: One seafarer died
http://www.maib.gov.uk/cms_resources.cfm?file=/Saga-Rose.pdf

Viking Islay: Three seafarers died
http://www.maib.gov.uk/cms_resources.cfm?file=/Viking_Islay.pdf

Sava Lake: This ship was at sea and two seamen died when accessing the cargo holds.
http://www.maib.gov.uk/cms_resources.cfm?file=/Sava%20Lake.pdf

Make sure your company has rigorous tank entry procedures. Tank entry procedures should include:

- permits to work – tank entry permit
- thorough ventilation of space
- atmosphere testing before tank entry and regularly testing throughout tank entry
- space secured for entry
- rescue equipment available, including breathing apparatus equipment
- responsible person in charge
- adequate lighting
- personal protective equipment used
- adequate communication

Does your ship have a calibrated O₂ meter suitable for testing the atmosphere in an enclosed space? If not, it should be supplied immediately. O₂ and other meters should be regularly calibrated. Meters should be easy to use and clear instructions in their use should be available. The use of personal O₂ meters is recommended.

If work, other than routine inspections are taking place in a tank then other precautions are necessary, including:

- risk assessments
- hot work permits (if appropriate)
- testing for other gases