



Ship Type: Gas Trade Area: Worldwide

Bulletin 526 - 06/07 - LPG Ship Gas Sampling Incident - Worldwide

After an incident last year in a port, the Marine Accident Investigation Branch (MAIB) has made recommendations to SIGTTO, OCIMF and the Chemical Distribution Institute (CDI) on the revision of industry guidance on gas sampling arrangements.

A large amount of propane gas escaped from an LPG ship when a problem was experienced with the sampling valve assembly. Whilst preparing to fit sampling equipment, the cargo surveyor turned the sampling connection towards himself and the valve assembly came off in his hand. Gas then escaped from the pressurised tank to atmosphere.

It was found that the assembly used for gas sampling on this ship was designed as a drain point for the cargo pipework system, but had come to be used for cargo sampling when the original arrangement provided for this was deemed unsuitable. The regulatory requirements for gas carriers include very little guidance on cargo sampling, with no unified standard employed. Industry guidance on sampling is also lacking.

Although emergency shut down valves had been activated at the time of the incident, one of the valves failed to close and contain the leak. Inspection of that ESD valve revealed that it had been jammed open by a small burr. Such valves on the discharge line were not pressure tested because there was no readily available method to do so. There is currently no clear regulatory requirement for ESD valves to be tested or internally examined at periodic intervals, or industry standard for regularly testing ESD valves in service.

The MAIB has recommended that SIGTTO, OCIMF and CDI review and revise guidance provided to the industry on sampling arrangements, taking due account of any standard required by classification societies.

The MAIB has made the following recommendations to a classification society:

Take forward a proposal to IACS regarding the operation and design of ESD valves which:

- Stipulates a requirement for ESD valves to be tested and inspected during class surveys to verify effective closure.
- Ensures that the IGC Code requirement for local manual closure means the ESD valve can be positively closed by hand.
- Requires arrangements for the indication of the status of ESD valves to accurately mimic whether the valve is open or closed.

The full report is available on the MAIB website:

http://www.maib.gov.uk/publications/investigation_reports/2007/ennerdale.cfm

Source of information: Marine Accident Investigation Branch (MAIB)

www.maib.gov.uk