

Circular From NORTH**Date: 5 November 2021**

Safe Working on CO₂ Systems – A Reminder

A recent fatal incident involving the accidental release of a carbon dioxide fixed firefighting system highlights the importance of ensuring the system is safe before carrying out maintenance.

On 27 September 2021, the vehicle carrier SANG SHIN was alongside a shipyard repair berth in Changtu, Zhoushan, China. During an inspection of the vessel's carbon dioxide (CO₂) fixed firefighting system, an unintentional release occurred. CO₂ flooded into the engine room, killing three persons and further injuring two more.

This tragic incident serves as a reminder than any maintenance – planned or unplanned – to be carried out on the system must be properly risk assessed with the necessary control measures in place. Always check the vessel's safety management system (SMS) and the manufacturer's recommendations.

IMO guidelines on the maintenance and inspection of fixed carbon dioxide fire-fighting systems (MSC.1/Circ.1318) provides guidance on who should carry out the maintenance and repairs.

It recommends that the onboard maintenance plan should indicate which tasks may be performed by competent crew members and which should be performed by specially trained persons.

The guidelines stress the importance of developing a safety plan prior to commencing any work on the system. The plan should:

- allow for all personnel to be accounted for
- establish an effective communications system between those working on the system and the on-duty crew
- identify measures to avoid accidental discharges such as locking or removing the operating arms from directional valves or shutting and locking the system block valve; and
- ensure all personnel are notified of the impending activities before work is begun

Source of Information: The North P&I Club