



Technical Circular

No.: 101/2017

Date: 08th August 2017

To whomsoever it may concern

Subject: USCG alert on Carbon Dioxide (CO₂) System and Inspection.

- During recent inspections, United States Coast Guard (USCG) has witnessed the testing and maintenance of CO₂ systems that resulted in serious safety threats that almost led to loss of lives.
- USCG has issued marine safety alert 07-17 highlighting dangers while inspecting carbon dioxide (CO₂) fire extinguishing systems.
- During first incident, the chief mate used a heat gun to activate vessel's CO₂ system heat actuator instead of a heat temperature transmitter. This causes activation and release of CO₂ system in the room and mate become unconscious.
- In a separate incident, a CO₂ system was accidentally triggered and primed for release by the technician on training. Ship officers opted to release the gas conducted a headcount but missed the USCG inspector in the engine room. The missing USCG inspector's partner realized the same and USCG inspector found before the gas gets activated.
- Proper planning and risk mitigation plans are needed during CO₂ system inspections and upgrades. USCG noted that these instances occurred due to lack of knowledge and risk awareness by the persons involved and recommended below:
 1. CO₂ testing and maintenance procedures onboard vessels are to be limited only to adequately trained and properly evaluated persons.
 2. Every person involved must know and consider the resulting outcomes for each step of the testing procedure prior to it taking place; and
 3. Risks associated with CO₂ and other systems should never be underestimated. Risk prevention activities should always lean towards providing the greatest safety margins for those involved, including 100% accountability of all personnel aboard the vessel prior to conducting an operational test of a system.
- Owners, operators and masters are requested to be guided by above.

Enclosure:

1. USCG marine safety alert 07-17.



. This Technical Circular and the material contained in it is provided only for the purpose of supplying current information to the reader and not as an advice to be relied upon by any person.
. While we have taken utmost care to be as factual as possible, readers/ users are advised to verify the exact text and content of the Regulation from the original source/ issuing Authority.

Whilst the utmost care has been taken in the compilation of the Technical Information, neither Indian Register of Shipping, its affiliates and subsidiaries if any, nor any of its directors, officers, employees or agents assume any responsibility and shall not be liable to any person for any loss, damage or expense caused in any manner whatsoever by reliance on the information in this document.