



Technical Circular

No.: 005/2025

Date: 20th January 2025

Subject: Incident & Casualties reported due to Fire associated with Bow Loading System (BLS).

1. In recent past a fire incident occurred on a ship on full sea passage in BLS Equipment Room / Bosun store located under fore-castle. Flammable gases from the piping installed in hazardous area penetrated into the BLS Equipment Room / Bosun store located in safe zone, where ignition occurred from the non-explosion proof electrical equipment resulting in a major fire.

The ship was retrofitted with Bow Loading System (BLS) and it appears that there were inconsistencies between BLS systems approved drawings and shipboard installation of hydraulic pipes deck penetration (which were not gas tight) leading to entry of flammable gases in BLS Equipment Room.

Also it is noted that there were lapses on board in respect of effective use of ventilation systems of BLS compartment, practices to effectively isolate cargo system after use including identification of critical cargo operations of loading cargo via BLS.

2. This caused serious structural damage to the ship & its equipment and the ship had to sail to a shipyard for major repairs.
3. These incidents provide an opportunity to re-look at Safe Working Practices followed for critical operations on-board and Safety Management System implemented by Companies.
4. A few effective ways to prevent similar incidents in future could be:
 - a) Company may consider review and develop a detailed procedures for modification and management of change so as to ensure that execution of modification projects are vital part of this process including coordination, verification and approvals.
 - b) Modification projects are better controlled by a responsible personnel ashore and on-board to ensure that the execution of the retrofitting of the new equipment and systems on board is going strictly in accordance with an approved plan and specifications. Any discrepancies and shortfalls are identified on the spot, reported and corrective actions taken promptly.
 - c) Based on lessons learned, it is recognized that the cargo operations using BLS are critical operations that requires robust ship specific procedures implemented on every vessel with such equipment on board.



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- d) Ensuring regular inspections and examinations implemented on board to verify condition of isolations recognizing that isolation of compartments of different hazardous zones from non-hazardous zones is utmost important during and after completion of cargo operations.
 - e) Ensuring effective use of the approved ventilation system during & after completion of cargo operation and the system is maintained in good operational condition at all times.
 - f) Approved Multi Cable Transit System (MCT) is used for cable / pipe penetration between different hazardous zones in-place of congested penetration.
 - g) Critical operations undertaken on ships are in accordance with established SOPs/ Checklists as per the safety management system including test & trials of essential machineries / systems to ensure operational readiness at all times.
 - h) Safe working practices are followed at all times.
5. Owners & Managers are to take note of above in order that corrective actions can be taken to avoid similar situations in future.

Enclosure: Nil.

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