CRITICAL CO_2 FIREFIGHTING SYSTEM OVERSIGHT DETECTED BEFORE SAILING

CO_2 FIREFIGHTING SYSTEM FOUND INOPERABLE BEFORE SAILING DUE TO MAINTENANCE OVERSIGHT

INTRODUCTION

A potentially serious safety failure was identified during a pre-sailing inspection when crew members discovered that safety pins preventing the vessel's fixed CO_2 firefighting system from operating had not been removed after maintenance work.

The pins had been installed by contractors to avoid accidental discharge during servicing. However, once maintenance was completed, the system was returned without restoring it to operational readiness.

Had an engine room fire occurred, the vessel's primary fixed firefighting system may have failed to activate.

HOW THE NEAR MISS WAS DISCOVERED

Following maintenance activities, the vessel was preparing to return to operational service when crew members conducted routine pre-departure inspections.

During these checks, it was discovered that the locking safety pins inserted into the CO_2 release system remained in place. These pins physically prevented activation of the firefighting system.

The oversight was corrected before sailing, avoiding what could have become a major emergency during vessel operations.

KEY CONTRIBUTING FACTORS

Incomplete Equipment Handover

The incident highlighted the importance of proper handover procedures between contractors and ship staff after maintenance work.

A joint verification process confirming:

- System status
- Operational readiness
- Removal of isolation devices
- Safety restoration

could have prevented the oversight.

Pressure During Dry Dock and Return to Service

Vessels returning from maintenance periods often face operational pressure to resume service quickly. Under such conditions, critical checks can sometimes be overlooked.

Poor Visibility of Safety Pins

The safety pins were difficult to identify because they visually blended into surrounding equipment. Improved visual indicators such as:

- Bright paint markings
- Warning labels
- “Remove Before Sailing” tags

could significantly reduce the risk of similar incidents.

SAFETY LESSONS FOR THE MARITIME INDUSTRY

For Seafarers

- Never assume maintenance work has been fully completed. Always verify that safety-critical systems are restored to operational condition before departure.

For Ship Managers

Post-maintenance verification and equipment handover procedures should be strengthened, especially following dry dock periods or contractor involvement.

For Regulators and Operators

Clear identification methods for isolation devices and lock-out components should be encouraged across the industry to improve safety awareness and prevent configuration errors.

CONCLUSION

This near miss demonstrates how a simple maintenance oversight could have disabled a vessel's emergency firefighting capability during a real engine room fire.

Strong communication, proper handover procedures, and thorough operational readiness checks remain essential to ensuring critical safety systems function when needed most.