



FINDINGS OF CONCERN

Office of Investigations and Casualty Analysis

October 13, 2023
Washington, DC

Findings of Concern 017-23, Corr. 01

UNSAFE LIFEBOAT CONDITIONS AND PRACTICES

Purpose. The U.S. Coast Guard issues findings of concern to disseminate information related to unsafe conditions that were identified as causal factors in a casualty and could contribute to future incidents. Findings of concern are intended to educate the public, state, or local agencies about the conditions discovered so they may address the findings with an appropriate voluntary action or highlight existing applicable company policies or state/local regulations. These Findings of Concern complement U. S. Coast Guard [Marine Safety Alert 03-20](#).

The Incident. On June 30, 2019, the aft hook on a floating outer continental shelf (OCS) facility's lifeboat inadvertently opened as the lifeboat was being winched into the davit following a quarterly launch and retrieval drill. The lifeboat, still hanging from the forward hook, swung in a pendulum motion away from the facility. A few seconds later, the forward hook separated from the lifeboat and opened, and the lifeboat fell approximately 80 feet, landing inverted in the water. The two persons still onboard the lifeboat when it fell were fatally injured. One person, who was exiting the lifeboat when it released, fell into the water, and was injured.

Contributing Factors and Analysis. As a result of its investigation, the U.S. Coast Guard determined that one of the most significant factors was the degradation and failure of the lifeboat's aft release cable. An annual inspection had been conducted less than one month before the incident where the condition of the cable had been noted, recommended for replacement, yet ultimately not replaced. Testing and analysis by investigators and experts after the incident revealed this to be a critical error and the unsafe condition of the release cable lead to its failure. In addition, the Coast Guard, the owner, and the original equipment manufacturer or "OEM" identified previously unknown vulnerabilities in the system: if all three layers of the conduit of a hook control cable separate or break, during a reset the locking shaft may not return to the fully closed position. Rather, the locking shaft may come to rest at an "almost open" position. In such a position, the hooks can support the weight of the boat and its occupants during retrieval. However, an additional load can cause the locking shaft to rotate to the open position, releasing the hook.

Findings of Concern.

- 1) Coast Guard investigators have identified the following recommended actions for an owner or operator of OCS facilities or vessels with lifeboats that conduct similar operations to consider. These recommendations may reduce the likelihood of recurrence:
 - Owners and operators of lifeboats are recommended to thoroughly review and incorporate all OEM recommended maintenance into their existing and future



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maintenance systems. Roles and expectations between the OEM or authorized service provider and the owner/operator should also be clarified as part of the owner/operator's maintenance system (if applicable) and before every servicing of lifesaving appliances.

- Owners and operators are recommended to ensure all persons planning, conducting, and overseeing lifeboat maintenance and inspection duties have read and are thoroughly familiar with the operations and maintenance manual that is specific to the lifeboat(s) being serviced.
 - Owners and operators are recommended to conduct training with OEMs and lifeboat crews to ensure a thorough understanding of how installed hook indicator's function and convey information regarding the status of the hook. The training should include teaching crews to verify the status of the hook indicator at least twice throughout the retrieval process; once at the water after the falls are connected and immediately after the lifeboat clears the water and prior to hoisting to stowage height.
- 2) Coast Guard investigators have identified the following recommended actions for OEMs of lifeboats that may reduce the likelihood of reoccurrence:
- OEMs evaluate all work instructions to determine if items that are "recommended for replacement" should be changed to "required for replacement".
 - OEMs ensure technicians are trained to communicate the urgency of the deficiency, risk associated with use prior to repair and, if needed, a timeline for repair.
 - OEMs review and revise their procedures for release mechanism control cable installations and inspections and provide training on the same to their technicians to ensure that control cable condition is fully evaluated during routine servicing.
 - OEMs conduct training with crews to ensure familiarity with hook and control markings and their meanings.

Closing. These findings of concern are provided for informational purpose only and do not relieve any domestic or international safety, operational, or material requirements. For any questions or comments please contact the Office of Investigations and Casualty Analysis by email at HQS-SMB-CG-INV@uscg.mil.