



UNITED STATES COAST GUARD

U.S. Department of Homeland Security

FINDINGS OF CONCERN

Sector San Francisco

February 7, 2019
San Francisco, CA

Findings of Concern 001-19

DREDGE OPERATION MANNING LEVELS

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.

The Incident. In October 2017, a towing vessel deckhand was injured while conducting line-handling operations for two barges. The towing vessel was pushing a barge to position it alongside another barge that was tied off to a mooring ball. As the Master of the towing vessel maneuvered the tug and barge closer to the moored barge, the deckhand climbed down the underway barge's pigeonholes to position himself to handle lines. While the deckhand was between both barges, the Master throttled forward to relieve tension on the lines. In doing so, however, the deckhand became caught between the two barges as they made contact with one another. Consequently, the deckhand's right foot was crushed and required immediate emergency medical attention.

Contributing Factors and Analysis. This investigation revealed there was an inadequate safe manning level on the towing vessel for the operation being conducted. While the Master and deckhand had continuous radio contact, the deckhand's ability to utilize radio communications was limited due to the complex tasks he was performing at the time. This unsafe condition was compounded by the fact that the Master and deckhand were out of visual contact with one another. Without additional vessel crew relaying information between the two, the incident ultimately occurred, leading to the deckhand's injury.

Findings of Concern. U.S. Coast Guard investigators have identified the following voluntary action for an owner/operator of similar vessels/operations to mitigate the risks associated with the above contributing factors:

- Towing vessels, specifically those engaged in dredging, should consider increasing their crew composition. During complex evolutions such as breaking tows or mooring, a single crewmember responsible for working the deck of both the towing vessel and associated barges/skows is inherently hazardous. The crewmember may have difficulty maintaining situational awareness while carrying out the required tasks on multiple vessels. Currently, on towing vessels without a Certificate of Inspection, the Master is responsible for the establishment of adequate watches in accordance with 46 CFR § 15.705.



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The minimum safe manning levels specified in a vessel's Certificate of Inspection take into consideration routine maintenance requirements and ability of the crew to perform all operational evolutions, including emergencies, as well as those functions which may be assigned to persons in watches. An additional crewmember, on watch, would provide more effective communications and a safer working environment. Tasking could be divided and crewmembers would be able to maintain visual contact, significantly decreasing the risk of injury for crewmembers working on deck.

Closing. These Findings of Concern are for informational purpose only and does not relieve any entity or party of domestic or international safety, regulatory, operational, or material requirements. Developed by the Sector San Francisco Investigations Division. Questions or comments may be sent to SectorSF.Investigations@uscg.mil.