



## **FINDINGS OF CONCERN**

### **Sector Jacksonville**

March 22, 2022  
Jacksonville, FL

Findings of Concern 002-22

## **ENSURE CARGO PREPARATION PROCEDURES CONFORM WITH THE INTERNATIONAL MARITIME DANGEROUS GOODS CODE**

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. A deep-draft Roll-on/Roll-off (RoRo) car carrier vessel was conducting cargo operations and loading used vehicles. At the conclusion of cargo operations, the vessel's Port Captain and crew conducted a check of each loaded deck. Approximately 15 minutes after cargo operations ended, the vessel's Chief Officer was transiting to the aft weather deck in order to address an issue with the stern ramp when he observed smoke coming from vents on deck 7 and 8. The vessel's fire alarm was sounded and the Chief Engineer observed a fire on deck 8. The crew mustered to fight the fire and subsequently abandoned ship onto the pier after their initial attempt to enter the space failed. The Chief Officer and Chief Engineer then re-boarded the ship and attempted to discharge the fixed carbon dioxide (CO<sub>2</sub>) system to decks 7 and 8 from the fire station on the weather deck. Shore side firefighters subsequently arrived on scene and began fighting the fire. As part of their effort to battle the fire, the shore side fire fighters opened ventilation ducts for decks 9, 10, and 11. Shortly thereafter, a series of explosions occurred and the fire burned on the vessel for approximately a week.

Contributing Factors and Analysis. The following have been identified as contributing factors:

1. Failure of the stevedores to disconnect all batteries of vehicles loaded onto the vessel.
2. Failure of the crew to prevent vehicles from leaking fluids.
3. Failure of shippers to properly prepare vehicles for shipment.

Findings of Concern. Coast Guard investigators have identified the following measures that can be taken by stevedores, crewmembers, and shippers to mitigate the risks associated with the above contributing factors:

- Review cargo receiving, preparation, and stowage procedures to ensure they meet the requirements of the International Maritime Dangerous Goods (IMDG) Code when shipping vehicles on vessels.



**UNITED STATES COAST GUARD**  
U.S. Department of Homeland Security

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- Review cargo receiving, preparation, and stowage procedures to ensure they meet the requirements of 49 Code of Federal Regulations (CFR) when shipping vehicles on vessels.
- Ensure that employees involved in handling and preparing vehicles for transport on vessels complete training on identifying hazardous cargo conditions that are in violation of the IMDG Code and 49 CFR.
- Ensure cargo decks have access lanes that can facilitate ship and shore emergency personnel accessing all parts of all cargo decks, even in a fully loaded condition.

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 Sector Jacksonville Investigations Division by phone at (904) 714-7500 or by email at [jaxinvestigations@uscg.mil](mailto:jaxinvestigations@uscg.mil).