

UNITED STATES COAST GUARD

U.S. Department of Homeland Security

FINDINGS OF CONCERN

Great Lakes District

December 18, 2025 Cleveland, OH Findings of Concern 020-25

SAFEGUARDING VESSELS: PREVENTING FLOODING RISKS DURING LAYUP

<u>Purpose</u>. The U.S. Coast Guard issues findings of concern to disseminate information related to unsafe conditions that were identified as causal factors in a marine 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 appropriate voluntary action or highlight existing applicable company policies or state/local regulations.

The Incident. During a layup period, a moored, foreign flagged vessel experienced progressive flooding that led to the vessel grounding. Shoreside personnel noticed a significant list and subsequently discovered flooding in the engine room. Divers subsequently determined that an open raw water strainer was the primary source of the flooding. While the incident did not cause pollution or personnel casualties, it resulted in extensive equipment damage and required substantial salvage operations. The vessel was scrapped in the summer of 2025.



Engine room flooding.

<u>Contributing Factors and Analysis</u>. The U.S. Coast Guard identified the following contributing factors that led to this incident:

- The vessel was placed into long-term layup where it was inadequately monitored and without access to shore power or heating. Consequently, its systems were not safeguarded against freezing conditions.
- Winterization protocols were implemented after freezing temperatures had set in, increasing the risk of ice formation within piping components.
 A piping system failure below the waterline can result in catastrophic flooding.



Open strainer found during dive operations.



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- Some strainers, drains, vents, and valves were left partially or fully open which created pathways for flooding. Components that are appropriately closed mitigate flooding propagation.
- Watertight doors and fittings were left open, compromising the watertight integrity of compartments which permitted progressive flooding to occur.
- The vessel was visited only three times per week, with no visits conducted over the weekend preceding the incident. This infrequent monitoring limited the ability to detect the flooding event at an early stage.

<u>Findings of Concern.</u> U.S. Coast Guard investigators identified the following measures as prudent to mitigating the risks associated with the above contributing factors when vessels are unmanned during layup periods:

- If the layup period occurs during the winter months and no approved installed heating source is in use, ensure that freeze protection measures for freshwater systems are implemented before freezing temperatures begin.
- Before departing the vessel, establish procedures to confirm watertight boundary conditions, including doors, hatches, manholes, and bulkhead closures. Additionally, inspect engineering spaces to ensure all raw water system components—such as valves, strainers, drains, and vents—are properly closed or securely sealed.
- Consider incorporating monitoring plans that include daily inspections and the installation of remote bilge monitoring systems to detect flooding. This is especially important during and after periods of inclement weather.

Investigations and inspection personnel are encouraged to remain alert to these issues and initiate corrective actions as needed.

<u>Closing</u>. These findings of concern are provided for informational purposes only and do not relieve any domestic or international safety, operational, or material requirements. They are not mandatory and do not impose new regulatory requirements. Instead, they encourage vessel owners, operators, shipyards, and other stakeholders to voluntarily review their own practices and consider adopting similar measures to reduce the likelihood of future incidents.

For any questions or comments please contact U.S. Coast Guard Great Lakes District by email at SMB-D9ClevelandDPI@uscg.mil.