



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

MARINE SAFETY ALERT

Inspections and Compliance Directorate

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Safety Alert 10-17

Oh, They're Just Seasick. Or Not? Carbon Monoxide – an unseen and deadly hazard you cannot spot!

Recently along the Gulf Coast multiple passengers on board an uninspected passenger vessel (UPV) were hospitalized due to carbon monoxide (CO) poisoning. One of the persons had a 26% CO level (amount of CO bound to hemoglobin or red blood cells) in their blood stream. Additionally, it was discovered that one of the passengers became unconscious and the other four passengers experienced heavy fatigue and vomiting as a result of the CO exposure.



Coast Guard Marine Inspectors conducted an exam of the vessel and found it to be in compliance with the ventilation requirements set forth in 46 CFR Subchapter C as they pertain to UPVs. The Coast Guard team then requested that the master get underway in order to take readings with a personal four gas meter. While underway the meter indicated significantly high parts per million CO in the vessel's fishing area, the flying bridge, and interior cabin spaces. The team directed the master to cease all operations until the causal factors behind the hazardous condition could be addressed and corrected.

As depicted in the photograph above, the sport fishing vessel had a platform mounted near the water level on the transom which supported a large fish container. There was a small space between the platform and the vertical surface of the transom. When the vessel was underway carbon monoxide from the exhaust would get trapped under the platform because its outer edges were submerged in water. As a result, the exhaust vented vertically up through the gap instead of venting away from the vessel's stern like a traditional exhaust would. Due to the draft and eddies created by the vessel when underway the exhaust circulated up over the stern and spread throughout the fishing area, flying bridge, and cabin.

Swim decks and other obstacles mounted to the stern can alter exhaust flow, putting passengers and crew at significant risk. Additionally, since the symptoms of sea sickness are similar to other types of illnesses they could be misdiagnosed as something far more innocuous than carbon monoxide poisoning.

The Coast Guard strongly recommends that owner / operators with similarly outfitted vessels:

- Determine if this type of risk is present on their vessels;
- Always monitor the general health of passengers and crew;
- Consider the use of Carbon Monoxide alarms in cabin areas; and
- Never assume that "it's just sea sickness," when the circumstance could be far more dangerous.

This safety alert is provided for informational purposes only and does not relieve any domestic or international safety, operational, or material requirements. Developed by the Sector Corpus Christi Investigations Division and Coast Guard District 8 Prevention Division. Questions may be sent to HQS-PF-fldr-CG-INV@uscg.mil.