



UNITED STATES COAST GUARD

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MARINE SAFETY ALERT

Inspections and Compliance Directorate

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Safety Alert 13-19

An Important Safety Consideration - Hazards of Retractable Pilot Houses on Towboats

Retractable pilothouses offer towing vessel operators great flexibility in meeting the many operational demands facing inland navigation including improved field of view when raised, thus improving an operator's situational awareness. Although seemingly benign, when a pilothouse is being lowered it presents a crushing hazard to individuals below. Some retractable pilothouses may also be operated in an "emergency mode" that increases the rate of descent and consequently provides less time for workers to recognize the danger and avoid the pilothouse and associated movable gear while it is being lowered.

Retractable pilothouses are not specifically addressed in 46 CFR Subchapter M, however 46 CFR 140.505(b) states: "All vessel equipment is required to be used in accordance with manufacturer's recommended practice and in a manner that minimizes risk of injury or death." Failure to comply with either of these requirements, manufacturer's recommendations or in a manner to minimize risk of injury, is a failure to comply with the requirement.



Towing vessel with a retractable pilothouse.
Photograph courtesy of WaterwaysJournal.net
Note: This is not the vessel associated with the casualty that led to the development of this alert.

It is not required for the hydraulics operating these retractable pilothouses to be installed with fail-safe operational features. Absent a fail-safe mechanism, failure of the hydraulic cylinder or other system component may not provide sufficient time for a crewmember to recognize the imminent hazard, safely exit the danger zone and avoid a catastrophe. Some retractable pilothouses may also lack alarms indicating emergency mode operation, subsequently increasing their potential risk to personnel.

The Coast Guard **strongly recommends** that towing vessel owners and operators that utilize retractable pilothouses:

- Ensure pilothouses are installed with mechanisms capable of returning the pilothouse to a fail-safe locked condition in case of a failure or malfunction;
- Ensure the pilothouses are equipped to sound an audible and visual alarm during all modes of pilothouse hydraulic movement;
- Instruct operators to confirm personnel are clear of the danger zone before moving the pilothouse;

- Instruct all personnel to never position themselves under the retractable pilothouse, even temporarily;
- Clearly mark and place physical barriers around the perimeter of the pilothouse danger zone and discourage unauthorized personnel movement under the pilothouse;
- Incorporate into the Towing Safety Management System (TSMS) the company/vessel's policy and procedures, information about the potential dangers, audible and visual alarms, and safety considerations regarding operation of the pilothouses; and,
- Ensure new crewmembers receive proper training regarding the dangers and that all personnel receive annual refresher training.

This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational or material requirement. Developed by the Investigators at Sector Houston/Galveston and distributed by the Office of Investigations and Analysis. Questions may be sent to Bruce.L.Davies@uscg.mil .