



MARINE SAFETY ALERT

Inspections and Compliance Directorate

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Washington, DC

Alert 05-12

Pressure Switch Location for Fixed Fire Suppression Systems

Where's yours located?

This safety alert addresses the location of fire suppression system pressure switches aboard vessels. These critical components sense the activation of the system and then electrically secures the ventilation systems operating in the protected space. Securing the ventilation is essential in extinguishing a fire onboard a vessel. It assists in isolating the fire within the space, minimizes the introduction of additional oxygen to fuel the fire and prevents the loss of fire suppression agents from the space.

Recently, a vessel with an installed fixed CO₂ fire suppression system, suffered extensive damage due to a fire that started in the engine room. During the firefighting efforts the crew reported that the engine room ventilation could not be secured. A post casualty damage survey of the vessel revealed that the pressure switch used to secure the ventilation was located within the engine room. See the photograph of the damaged pressure switch at the right and new switch below.



Fixed CO₂ systems on inspected/regulated vessels need to be type approved and installed in accordance with applicable regulations; 46 CFR 25.30-15, 46 CFR Subpart 76.15, 46 CFR Subpart 95.15, 46 CFR 118.410, etc. These regulations require all controls and valves for the operation of the system to be outside the space protected, and notes they cannot be located in any space that might be cut off or made inaccessible in the event of fire in the protected spaces. The Coast Guard considers pressure switches that are used in such systems a "control."



For Uninspected Towing Vessels, 46 CFR 25.30-15 (b) requires installation in accordance with 46 CFR Subpart 76.15 and reiterates the location requirements.

The Coast Guard **strongly reminds** Owners and Operators of vessels with installed fixed fire suppression systems to ensure that these switches are properly located aboard their vessels. If the pressure switch or switches are located within the space being protected, they should be relocated by a properly trained fire suppression service technician. Doing so will assist in ensuring system functionality and accessibility in the event of an emergency. Failing to do so could have serious consequences to the vessel, its crew and the environment.

This safety alert is for informational purposes only and does not relieve any domestic or international safety, operational or material requirement. Developed by the Office of Commercial Vessel Compliance, Washington, DC. Questions may be addressed to CG-CVC-1@uscg.mil.
