



UNITED STATES COAST GUARD

U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

May 27, 2015
Washington, DC

Safety Alert 6-15



FIRE EXTINGUISHING SYSTEMS READY

Are you sure?

This Safety Alert is being issued due to recent safety concerns discovered on vessels with fixed CO₂ fire fighting systems. It is critical that operators of vessels with fixed CO₂ systems are familiar with the operation of the systems; conduct periodic inspections of the systems for readiness, and know the signs for detecting when a discharge has occurred. It is recommended that the appropriate crew members receive training on CO₂ system operation and its basic components.

Recently, during the annual servicing of a KIDDE CO₂ system onboard a passenger ferry, a technician and Coast Guard Marine Inspector discovered that an undetected discharge of the CO₂ system within the emergency generator room had taken place. Although the time of the inadvertent discharge could not be determined, the cause was due to be a worn internal mechanism within the control head.

The crew was unaware of the discharge in the emergency generator room because the space did not require any indicators (e.g., alarm, smoke/heat detection) to alert the crew and nobody was present at the time of discharge. This circumstance presented three latent unsafe conditions: the failure could have occurred while someone was within the space, a person could have entered the space after the release and the space remained unprotected for an unknown period of time.

Identifying the status of a fixed CO₂ system can be done visually. The control head of the valve has a slot that either aligns to the "SET" or the "RELEASED" position and the indicators are the same whether it is an electrically operated (left photograph) or pneumatically operated control head (center photograph).

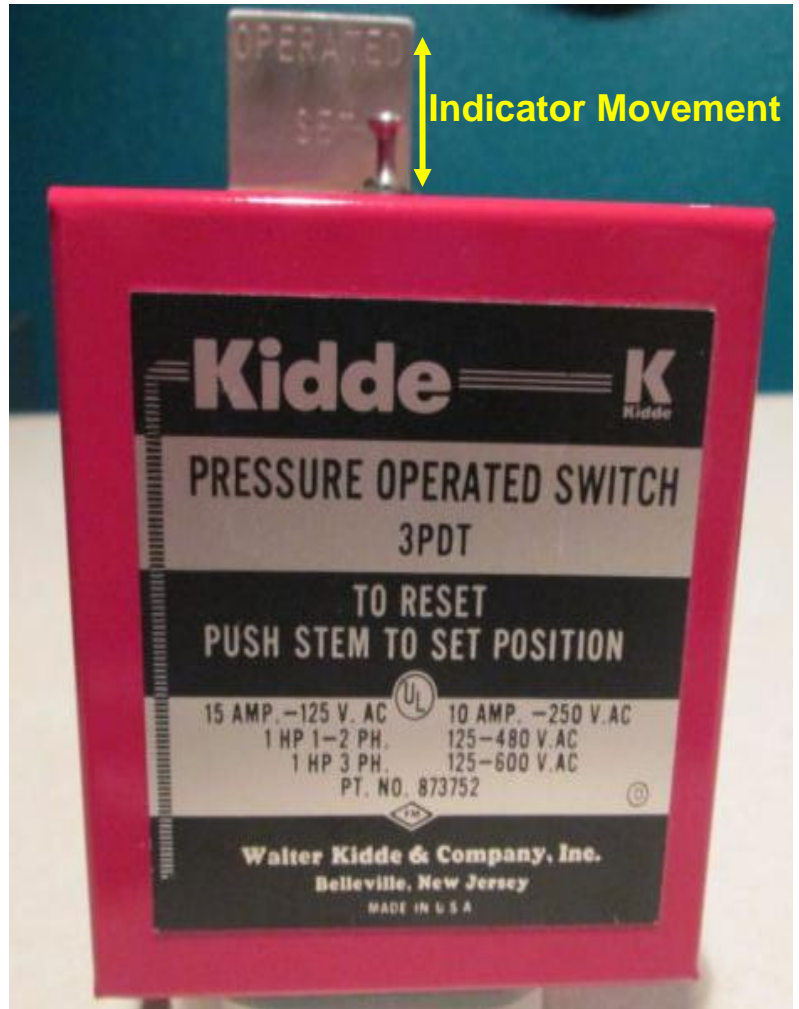


The slot and arrow indicator on the released component above aligns with the status of the CO₂ bottle.



Pictured above is a release indicator for an ANSUL system.

The photo on the right is an example of a second visual indicator for checking system status. It indicates the pressure switch position for the CO₂ system. If the indicator is in the down "SET" position, no CO₂ has been released and the system is ready for operation. If the indicator is in the up position, it indicates that the system has been "OPERATED" and that the proper servicing company should be contacted immediately to bring the system back to readiness.



Due to the risks associated with an inadvertent discharge of a fixed CO₂ system, the Coast Guard **strongly recommends** that owners and operators ensure that appropriate vessel personnel:

- Receive adequate training to perform routine inspections of their vessel's fixed CO₂ systems and fully understand their operation, particularly those protecting large spaces or multiple areas,
- Frequently review and update operating manuals, checklists, and safety management systems associated with vessel extinguishing systems onboard, and
- Post clear instructions for fixed CO₂ system emergency operation.

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 Sector Southeastern New England - Prevention Department. For questions or concerns, please email LT Kelli Dougherty - Kelli.M.Dougherty@uscg.mil. Distributed by the Office of Investigations and Casualty Analysis, Washington DC.