



GOOD CATCH from **The American Club**

Make Sure to Know What to Do, Before You Release the CO₂

Description

An ocean-going ship had an engine room fire when lube oil escaped under high pressure from an oil plug that had vibrated loose on a generator's lube oil pump. The spraying lube oil made contact with the generator's hot exhaust casing and ignited. The 2 engineers on watch were almost immediately chased out of the engine room by the heavy smoke and heat as the fire moved rapidly through the engine room space. They quickly notified the bridge and the fire alarm was sounded. The crew responded professionally and swiftly got to their assigned muster stations. The engineers used the remote valves to isolate the fuel from the engine room.



Moving quickly, the Chief Engineer spoke with the Captain and they agreed to use the fixed CO₂ system to extinguish the fire. Sensing the urgency of the situation, the Chief Engineer and 2nd Assistant Engineer quickly confirmed that no personnel remained in the engine room. Immediately thereafter, the Chief Engineer activated the CO₂ system. As expected, the CO₂ time delay alarm sounded and the engine room vent fans stopped when the CO₂ alarm started. Soon after, they heard the CO₂ bottles release their contents.

Unfortunately, the fire continued to burn for several hours as the CO₂ failed to put out the fire. Upon later investigation, it was found that 2 doors to the engine room had been left open as were 4 large engine room vent covers. Both of the engine room doors exited onto the main deck, one portside and the other to starboard and were routinely kept open for ventilation

purposes. Consequently, most of the CO₂ that had been released into the engine room was rendered ineffective as it quickly escaped out the doors and vents until the fire burned itself out leaving the ship dead in the water.

Actual Consequences

The damage from the fire, having burned for several additional hours, added \$3.4 million to the vessel's repair cost. That extra fire damage could have been avoided. The ship was out of service for 5 months for repairs.

Potential Consequences

The consequences of this fire could have been worse. Fortunately, most of the CO₂ escaped into the atmosphere and didn't flow from the engine room into other manned spaces of the vessel through doors that had been left open. Also, if the fuel had not been isolated and secured, the fire could have burned for days and likely jeopardized the entire ship, cargo and the crew alike.

Prevention

Be mentally prepared for fire emergencies. Think through in advance what must be done for different engine room fire scenarios and practice those steps during fire drills. Before activating the CO₂ system, ALWAYS:

- ★ Ensure no one is left in the engine room;
- ★ Use remote shutoffs to isolate and secure the fuel;
- ★ Verify that the vent fans are secured;
- ★ Make sure the vent covers are tightly closed; and
- ★ Make sure all doors to the engine room are fully closed.

Necessary Maintenance Activities

- ★ Ensure the vent covers are in good working order and periodically inspected;
- ★ Ensure the CO₂ system is properly maintained and regularly inspected;
- ★ Ensure all fire dampers and automatic shutoffs are in good working order and are tested regularly;
- ★ Ensure that fire doors are never held open by ropes, latches or other means.



When you identify a hazard before someone gets hurt...

it's a Good Catch.

When you fix a problem before something bad happens...

it's a Good Catch.

When you take responsibility for your own safety...

that's a Good Catch, too!



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