

Do You Recognize Change?

In 2014, a fire occurred on a passenger vessel in the Atlantic Ocean about a mile from the U.S. A crewmember discovered the small fuel spray fire above one of the four propulsion engines during his routine rounds. He left the area and informed the bridge. Proper emergency procedures were followed and the fire was quickly extinguished using the vessel's fixed fire protection system (CO₂). None of the 174 people on board were injured.

The vessel was equipped with four diesel propulsion engines

(Photo 1). Fuel was delivered to each cylinder through a threaded variable-length coupling (Photo 2). The couplings lengthen when the ends are threaded through the cylinder connection during installation. Couplings on three of the four engines had been incorrectly replaced with threaded hose fittings and rubber hoses (Photo 3). One of the hoses failed and sprayed fuel directly onto the hot engine exhaust, which likely provided the ignition source for the fire.



Source: U.S. Coast Guard, Marine Safety Alert 12-14, U.S.C.G., Washington, DC (Nov. 3, 2014).

What can you do?

Although this incident occurred on a passenger ship, a similar incident can occur in a process plant if a robust management of change (MOC) procedure is not followed. The most important step in MOC is recognizing a change. If the change is not recognized, the MOC process will never be initiated!

- Use the correct replacement parts when repairing any equipment.
- Understand your plant's MOC procedures, and your role in implementing those procedures.
- Know how to recognize changes in procedures, equipment,

instrumentation, controls, process control computer software, materials, and safety systems.

- If you are involved in approving change proposals as part of your plant's MOC process, make sure that you understand the basis for the original design when you evaluate the proposed change.
- If you are not sure if something is considered a change, ask for help, or initiate the MOC procedure just in case.
- If you see something different in your plant, ask if the MOC procedure has been followed for the modification.

You can't manage a change that hasn't been recognized!

©AIChE 2016. All rights reserved. Reproduction for non-commercial, educational purposes is encouraged. However, reproduction for any commercial purpose without express written consent of AIChE is strictly prohibited. Contact us at ccps_beacon@aiche.org or 646-495-1371.