



Coffee Break Training - Fire Protection Series

Hazardous Materials: Breakaway Devices for Fuel Dispenser Hoses

No. FP-2011-12 March 22, 2011

Learning Objective: The student shall be able to identify the requirements for breakaway devices in motor vehicle fuel dispenser hoses.

From time to time a careless motorist will drive away from a fuel dispenser without first removing the nozzle from the automobile's fill opening. In that case, there is potential for a fuel dispenser to continue delivering product through an open orifice.

To minimize the chance of unwanted flow, the model fire codes require dispenser hoses for Class I and II liquids to be equipped with a listed breakaway device that is designed to retain liquid on both sides of the breakaway point. These devices are required to be installed and maintained in accordance with the manufacturer's instructions.



This breakaway device is intended to stop fuel flow in the event the dispenser hose is pulled from its connections.

Visual inspection alone may not be suitable to verify that the breakaway device remains operational after being in service for some time. While dispenser nozzles can be tested on a regular schedule to determine their condition, there is no way to test breakaway devices without physically separating them. There have been reports of breakaway devices that were corroded together and did not separate when tested; this condition was all internal and could not be detected from the outside of the unit.

In order to minimize the risk of failure, the fuel dispenser manufacturing industry began a program of dating the breakaway devices with suggested "remove by" dates. Based on their research, the industry recommends these devices be removed and replaced within 5 years of the manufacture date. The "remove by" date is printed on the breakaway device.

For a cutaway video demonstration of how the device illustrated today operates, visit <http://www.opwglobal.com/Resources/videosAnimationsPresentations.aspx> and select the file for "reconnectable breakaways."

For additional information, refer to National Fire Protection Association (NFPA) 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages, Chapter 6, International Fire Code®, Chapter 22, or NFPA® 1, Uniform Fire Code®, Chapter 42.



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