

U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Service Station Fuel Dispensing Hoses

Learning objective: The student shall be able to identify the Underwriters Laboratories standard for motor vehicle fuel dispensing hoses at automotive service stations.

The accompanying picture of a gasoline dispensing hose illustrates the fact that the fire codes do not provide solutions to all challenges.

The checkered rubber cover and the exposed, braided inner liner suggest this hose has been subject to damage from weather, sunlight, or other factors. One might suspect that this damage is a precursor to a leak and the hose should be taken out of service or repaired.

However, none of the model flammable or combustible liquids codes addresses this condition. The codes simply state that dispensing hoses must be listed and approved, leaving no clear guidance to the code official as to how to approve a fuel dispensing hose.

Underwriters Laboratories UL330, *Standard for Safety for Hose and Hose Assemblies for Dispensing Flammable Liquids*, covers hose and hose assemblies, including vapor recovery hose and assemblies, for use on dispensing devices for flammable liquids. For the purpose of this standard, flammable liquids are gasoline and diesel fuel. The term “gasoline” includes gasoline with small amounts of additives such as detergents, solvents for detergents, and anti-icing chemicals, and gasoline with up to 15 percent ethanol or methyl tertiary butyl ether (MTBE).



These requirements cover hose and hose assemblies (hose with couplings attached) in sizes up to and including 1-1/2 inches (38.1 mm). Dispensing hose is not permitted to be longer than 18 feet (5.48 m).

Hose for conveying liquid fuel is intended for use at a maximum working pressure of 50 psig (345 kPa). Hose for conveying fuel vapors as part of a vapor recovery system is intended for use at a maximum working pressure of 0.5 psig (3.4 kPa), including slight negative pressures from vapor assist systems.

For additional information, refer to *International Fire Code*[®], Chapter 22; NFPA 1, *Uniform Fire Code*[™], Chapters 30 and 42; or NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*.