

CARGO TANK MOTOR VEHICLE “WETLINES”

49 CFR § 173.120(a) defines flammable liquids as having a flash point below 140°F or any material in a liquid phase with a flash point at or above 100°F that is intentionally heated and offered for transportation above its flash point in a bulk packaging.

49 CFR § 173.120(b) defines a combustible liquid as having a flashpoint above 140°F and below 200°F

The Department of Transportation authorizes the transportation of flammable liquids in specification cargo tanks. Certain flammable liquids with a flashpoint above 100°F can be reclassified as combustible and hauled in non-specification cargo tanks in U. S. domestic transportation. The most common example of this is diesel fuel.

There are a wide variety of flammable products carried in cargo tank equipment of various configurations. Below are examples of some of the different types of equipment that could be impacted by a ban on flammable materials in cargo tank external piping.

The most common product hauled in cargo tanks is gasoline which is primarily hauled in MC306 or DOT406 cargo tanks. Depending on the number of loading lines, the external piping in a DOT406 cargo tank could hold up to 50 gallons total for all lines. If an incident involves a loss of product of more than 50 gallons, then the product came from sources other than and including the lines, and a purging system would not be effective in preventing the incident.

DOT 406 semi-trailer:



Typically up to 9,000 gallon capacity with four to five compartments to allow transportation of different grades of gasoline or petroleum products.

DOT 406: 5 Compartments with 5 External loading lines.



DOT 406: 1 compartment – 1 wetline and 1 Line used for vapor recovery



Flammable liquids such as gasoline and diesel fuel also are transported in straight trucks where the tank sits on the truck chassis. The capacity of these tanks ranges from 1,500 to 4,500 gallons. The external piping is much shorter on these tanks and will hold less product.

DOT406 Straight truck:



DOT 406 Straight Truck – Short External Loading/Unloading lines:



DOT 406 – “Michigan Style”



This Michigan style DOT406 trailer can haul up to 12,000 gallons, because of the extra axles. The axles provide a protective barrier making it even more unlikely that wetlines could be damaged in an accident.

Combination Tank Truck Vehicle:



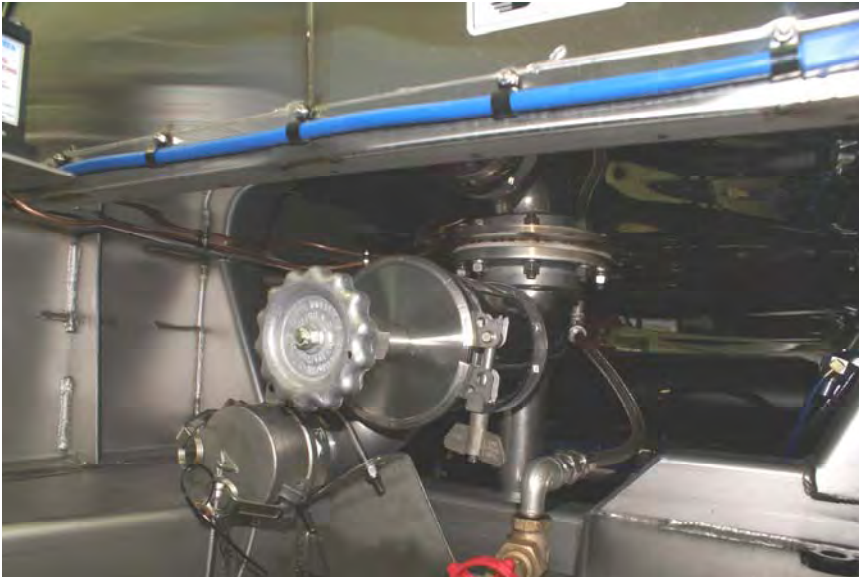
This is a typical truck and trailer combination which is commonly used on the West Coast. The external piping on the pull or pup trailer is more exposed than the piping on the truck mounted tank.



MC307 or DOT407 Chemical Trailers:



Flammable liquids chemicals and solvents also are hauled in cargo tanks. The most common type tank for these products is the MC307 or DOT407 with capacities of from 5,000 to 7,000 gallons.



External piping on a DOT407 or MC307 tends to be short (less than two feet) and can be at either rear or at side of trailer, depending on style of loading and unloading.

Unloading Hoses:

Deliveries to gas stations require the use of portable hoses that connect the tank truck to the facility's underground storage tank. These hoses are not permanently mounted to the cargo tank.



This accident occurred when a motorist drove her car over gasoline unloading lines at a service station. Such accidents are often misclassified as wetlines incidents; however, they do not involve a cargo tank's external product piping. Purging systems would have no impact on reducing these types of incidents.