

Hazardous Materials Bulletin

PROPANE TRANSPORTATION ISSUES

December 2007

Storage Tanks

Section 173.315(j) of the Federal Hazardous Materials Regulations (FHMR) allows the transportation of a non-specification storage tank for liquefied petroleum gas for permanent installation on consumer premises by a private motor carrier. Although it is a non-specification tank, it still must meet certain standards, including ASME and NFPA 58, and be adequately blocked and braced as to prevent relative motion during transit. Valves must be protected from damage during transportation.

Storage tanks with a water capacity of 1,042 pounds (125 gallons) or more may not be charged to more than 5% of its water capacity while in transportation except in certain narrowly drawn situations, in accordance with [USDOT Special Permit 13341](#). Tanks with a water capacity of less than 1,042 pounds may be charged to the filling density permitted in the FHMR.

Shipping papers, completed according to Part 172, Subpart C, are required. In addition, storage tanks must be marked according to Section 173.331 and 173.332. For tanks of 1,000 gallons or less water capacity, this includes the identification number (1075 or 1978) on two opposing sides of the tank. For tanks over 1,000 gallons water capacity, the identification number must appear on both sides and both ends. Storage tanks, in contrast to portable tanks, do not have to be marked with the proper shipping name.

With regard to placarding, each bulk package (a container over 119-gallon capacity) must be placarded on each side and each end. If the placards on the package are not visible outside the vehicle, then the vehicle must also be placarded on each side and each end. Section 172.514 (c)

Missing "U" Stamps

Some ASME/DOT cargo tanks have been located in Michigan which were missing the "U" stamp on the tank as required by the National Board of Boiler and Pressure Vessel Inspectors. Any DOT specification tank that is required to have the stamp but does not **must** have the stamp replaced. Propane carriers are urged to check their tanks to ensure the stamp is there. If it cannot be located, contact your Registered Inspector for the proper procedure to have it replaced.

Farm Cart Exemption

USDOT has issued Exemption DOT-E 11209, permitting the use of "farm carts" or "nurse tanks" for the transportation of liquefied petroleum gas **exclusively for agricultural purposes when transported by a private carrier**. To be a party to the exemption, a propane carrier **must** be registered with the National Propane Gas Association (NPGA).

These tanks are exempted from DOT cargo tank specifications, shipping papers, and the marking of the exemption number on the tank. A copy of the exemption must be carried in the vehicle. The tank must meet ASME and NFPA 58, be securely mounted, and have a water capacity of 1,200 gallons or less. The tank may only be filled to no more than 5% of its capacity.

Internal Valves

There have been several questions regarding the use of "back-check" valves on vapor discharge lines. Section 173.33(h) of the FHMR is quite clear: "Each liquid or vapor discharge opening in an MC330 or MC331 cargo tank ...must be provided with a remotely controlled internal self-closing stop valve...." There are certain exceptions for tanks transporting materials other than flammable liquids, flammable gases, hydrogen chloride, or anhydrous ammonia.

NON-ODORIZED marking on cargo tanks and other packages containing LPG

After September 30, 2006, no person may offer for transportation or transport a cargo tank or other package except a Specification 2P or 2Q container or a Specification 39 cylinder containing liquefied petroleum gas (LPG) that is un-odorized as authorized in Sec. 173.315(b)(1) unless it is legibly marked NON-ODORIZED or NOT ODORIZED on two opposing sides near the marked proper shipping name or near the placards (for bulk) or in letters not less than 6.3 mm (0.25 inches) in height near the marked proper shipping name (non-bulk).

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Michigan State Police – Traffic Safety Division, www.michigan.gov/motorcarrier

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