



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

APR 20 2006

Mr. Brad Ferstan
Goodall Rubber Company
3525 Labore Road
Vadnais Heights, MN 55110

Ref. No. 05-0195

Dear Mr. Ferstan:

This responds to your letter regarding the use of rubber hose fittings on MC-331 cargo tanks in accordance with the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you asked if your understanding is correct that rubber hose fittings made to NPTF thread specification would be acceptable to use on MC-331 cargo tanks, provided they meet all applicable requirements of § 178.337-9.

For an MC-331 cargo tank, pipe joints must be threaded, welded, or flanged. If threaded pipe is used, the pipe and fittings must be "Schedule 80" weight or heavier, except for sacrificial devices. Malleable metal, stainless steel, or ductile iron must be used in the construction of primary valve body parts and fittings used in liquid filling or vapor equalization. As a result, a rubber fitting cannot be used in any connection on the cargo tank that involves either filling the tank or any system on the tank that provides for vapor equalization. Stainless steel may be used for internal components such as shutoff discs and springs except where incompatible with the lading to be transported. Where copper tubing is permitted joints must be brazed or be of equally strong metal union type. The melting point of the brazing material may not be lower than 538°C (1,000°F). The method of joining tubing may not reduce the strength of the tubing. (See § 178.337-9 (b)(2)).

The hose identification, inspection, and testing requirements for hoses on cargo tanks used to transport liquefied compressed gases are in §180.416 of the HMR. These requirements apply to delivery hoses and hose assemblies only. A rubber hose used as a flexible connector in the piping system of a cargo tank is not a delivery hose. Thus, such rubber flexible connectors need not be marked with a unique identifier and are not subject to the periodic inspection, testing, and recordkeeping requirements applicable to delivery hose assemblies in § 180.416. Note, however, that rubber flexible connectors must be



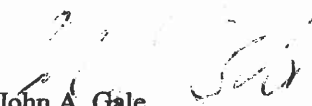
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178.337-9

inspected and tested in accordance with requirements applicable to piping systems in § 180.416.

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,


John A. Gale
Chief, Standards Development
Office of Hazardous Materials Standards