



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

SEP 25 2003

Sergeant David P. Feather
Safety Division, Motor Carrier Safety
Commonwealth of Virginia
Department of State Police
P.O. Box 10900
Fairfax Station, Virginia 22039-0900

Ref. No. 02-0287

Dear Sergeant Feather:

This responds to your letter requesting clarification on venting for double bulkheads or void spaces for MC 300 and DOT 400 series cargo tanks under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether it is permissible to plug the hole on top of the cargo tank at the double bulkhead, provided that the bottom opening is left open.

Sections 178.340-7(c), 178.345-1(i)(2) and 178.345-3 require any MC 300 and MC 400 cargo tank void or airspace to be vented and equipped with a drain located on the bottom centerline which is accessible and open at all times. Based on the information and photos provided in your letter, it is the opinion of this Office that it is permissible to plug the hole on the top of the cargo tank, provided the bottom opening or drain is open and operational at all times.

I hope this answers your inquiry.

Sincerely,

Susan Gorsky
Senior Transportation Regulations Specialist
Office of Hazardous Materials Standards



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Boothe
§ 178.340-7(c)
§ 178.345-3
Cargo Tanks
02-0287

Col. W. Gerald Massengill
Superintendent

(804) 674-2000

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF STATE POLICE

P. O. Box 10900
Fairfax Station, Virginia 22039-0900

October 24, 2002

Mr. Delmer Billings
Office of Hazardous Materials Transportation
Research & Special Programs (DHM-11)
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Billings

I have a question that concerns both the MC 300 and DOT 400 series cargo tanks when it comes to what is venting for double bulkheads or void spaces. The question that arises is whether it is permissible to plug the hole on top of the cargo tank at the double bulkhead, provided that the bottom plug is left open.

As stated for MC 300 series cargo tanks in 178.340-7(c). Referring to Double Bulkheads: "Tanks designed to transport different commodities which if combined during transit will cause a dangerous condition or evolution of heat or gas shall be provided with compartments separated by an air space. This air space shall be vented and be equipped with drainage facilities which shall be kept operative at all times."

And the language for the DOT 400 series tanks is similar as is contained in 178.345-1(i)(2). "The strength of the connecting structure joining multiple cargo tanks in a cargo tank motor vehicle must meet the structural design requirements in § 178.345-3. Any void within the connecting structure must be vented to the atmosphere and have a drain located on the bottom of the centerline. Each drain must be accessible and must be kept open at all times. The drain in any void within the connecting structure of a carbon steel, self supporting cargo tank may be either a single drain of at least 1.0 inch diameter, or two or more drains of at least 0.5 inch diameter, 6.0 inches apart, one of which is located on the bottom of the centerline."

I have enclosed three photographs of the double bulkheads showing top and bottom of the cargo tanks. I appreciate your taking the time to answer this question and I look forward to your response.

David P. Feather, Sergeant
Safety Division, Motor Carrier Safety
Fairfax Station, Virginia