



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

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

JAN 27 2000

Mr. Scott W. Rumph
Sumter Transport
170 South Lafayette Drive
Sumter, South Carolina 29150

Ref. No. 00-0010

Dear Mr. Rumph:

This responds to your letter, dated October 29, 1999, concerning cargo tank specification requirements in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask about a design modification to MC 307, MC 312, DOT 407, and DOT 412 specification cargo tanks to equip them with an internal agitation system driven by a power source located outside the cargo tank.

Your letter suggests that you are considering manufacturing new cargo tanks equipped with the internal agitation system rather than modifying existing cargo tanks. You should be aware that MC 307 and MC 312 specification cargo tanks have not been authorized for new construction since August 31, 1995 (see § 180.405(b)).

The design and construction requirements for DOT 407 and DOT 412 specification cargo tanks are in § 178.345 of the HMR. The regulations do not prohibit a design of the type you describe. Each cargo tank motor vehicle design type must be approved by a Design Certifying Engineer (see § 178.320(b)). In addition, each finished cargo tank motor vehicle must be inspected by an Authorized Inspector or a Registered Inspector, as applicable (see § 178.345-1(e)).

Generally, MC 307, MC 312, DOT 407, and DOT 412 specification cargo tanks are authorized for bulk shipments of flammable liquids, including waste flammable liquids. Packaging requirements for bulk quantities of a specific hazardous material can be found in column 8(C) of the Hazardous Materials Table in § 172.101 of the HMR. You should consult the section of the HMR referenced in column 8(C) for the specific hazardous material you are transporting for the packagings authorized for transportation and any special requirements that also apply.



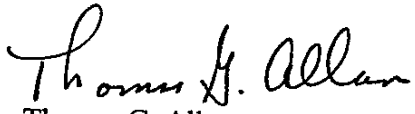
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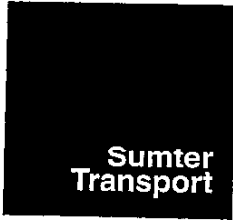
Additional requirements for transporting bulk quantities of hazardous materials are in Part 173, Subpart B – Preparation of Hazardous Materials for Transportation.

I hope this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in cursive script that reads "Thomas G. Allan". The signature is written in black ink and is positioned above the printed name.

Thomas G. Allan
Senior Transportation Regulations Specialist
Office of Hazardous Materials Standards



Gorskey
File: 178.345
Ref. No. 00-0010

October 29, 1999

Mr. Edward Mazullo
Director of Standards
U.S. Department of Transportation
U.S. Dot 400 7th Street S.W.
Washington, DC 20590

Dear Mr. Mazullo:

We are considering having some tank trailers built that will be equipped with an internal agitation system driven by a power source located outside of the vessel. The agitator will be connected to a rotating shaft, which would penetrate the shell wall below the liquid level in some applications. The rotating shaft will be sealed with either a shaft seal or a packing gland.

My question is whether this proposed application would meet the specifications as per the Code of Federal Regulations for the following code tankers:

- 1.) MC 307 Tankers
- 2.) MC 407 Tankers
- 3.) ASME 312 Tankers
- 4.) ASME 412 Tankers

We also are especially interested in how this may apply to the transportation of hazardous waste flammable liquids on the United States highways.

I would appreciate an early response, as we need guidance on several pending business expansion deadlines in the transportation business.

I can be reached by telephone at 1-800-479-7496 should you need to speak to me. Thank you for your time and response to this inquiry.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott W. Rumph".

Scott W. Rumph

SWR/jk