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INCORPORATED 1917

177638 P-1409  
**E.D. ETNYRE & CO.,** Oregon, Illinois 61061-9778  
1333 South Daysville Road • Phone: 815/732-2116 • Fax: 815-732-7400 • Telex: MCI 6505104321

RSPA-2000-12637-1

Mr. Edward Mazzullo  
Director, Office of Hazardous Materials Standards  
RSPA DHM-10  
400 7<sup>th</sup> Street, South West  
Washington D.C. 20590

December 13, 2000

Dear Mr. Mazzullo:

E.D. Etnyre & Company is a 100+ year old organization engaged in the manufacture of road maintenance and transportation equipment. We specialize in the manufacture of cargo tanks and application equipment for elevated temperature materials. We have been active in the TTMA since 1964, and I just completed my duties as the Chair of the Tank Conference Engineering Committee.

Today, we face a situation in the construction of cargo tanks for molten sulfur, caused by what we believe was merely an oversight in the compilation of 49CFR 172.102 Hazardous Material Table. The technical details of this proposed change follow. Our Company has not constructed any new tanks for molten sulfur since the inception of HM-183. However, we presently have business opportunities in this product line. Unless the regulations are changed, we will be forced to forgo this opportunity. We would appreciate your prompt response to our petition.

Historically, (before HM-183) cargo tanks for molten sulfur were constructed with shells made from 3/8 inch thick shells of 5454 H32 material. Typically, these tanks were approximately 50 inches in diameter and forty feet long. Molten sulfur is a relatively dense material and is transported at 350° to 375° F. These tanks were manufactured by several cargo tank manufacturers, and continue to operate with good performance and safety records.

The stress levels to which these tanks were designed was, (prior to HM-183) 25% of the ultimate strength found in the Aluminum Association's "Aluminum standards and data, 1982" for "O" temper at the maximum design temperature of the tank. Presently, these tanks must be built to the allowable stress levels of ASME Section II, table 1B.

The allowable stresses from these two references are shown below:

Allowable Stress Levels, pounds per square inch		
Temperature, °F.	ASME table 1B	Aluminum Association
300	5500	7250
350	4100	none shown
400	3000	5500

The result of this change in stress levels is that the shells of these cargo tanks, which were formerly 3/8 inch thick now, need to be 1/2 inch thick. This results in an additional 930 pounds of weight, and \$2400 in additional cost to the carrier. The 1/2 inch thickness is beyond the rolling capacity of some manufacturers. As a further result, very few of these tanks have been built in the last few years. Carriers have decided to keep their old fleet running instead of retiring the old cargo tanks and replacing them with much heavier ones.

49CFR 172.102 special provision B13c allows the use of the Aluminum Association's numbers for certain cargo tanks such as in "tars, liquid including road asphalt and oils, bitumen and cut backs".

Please also note that prior to HM-183 molten sulfur was an unregulated product, not listed in the Hazardous Materials table.

We request that the special provision B13c be allowed for cargo tanks transporting Molten Sulfur, and that B13c be added to 49CFR 172.101 Hazardous Material Table, at the entry for Molten sulfur.

Again, because of the immediate business opportunities awaiting us, we would appreciate a prompt response to our petition.

Sincerely:



Patrick O'Brien  
Product Engineering Manager



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

P1409a

3/28/2001

Mr. Jeff Sims  
Engineering Manager  
Truck Trailer Manufacturers Association  
1020 Princess Street  
Alexandria, VA 22314-2247

Dear Mr. Sims:

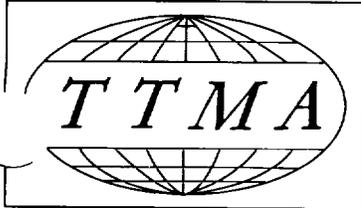
This acknowledges the receipt of your February 22, 2001 letter requesting an amendment of the entry "Molten Sulfur" in the Hazardous Materials Table, in 49 CFR 172.101 to add Special provision B13c.

Your request has been made a part of petition number P-1409. This number is for tracking purposes only. This request has not been assessed for merit. If accepted under 49 CFR 106.31 as a petition for rulemaking, it will be considered for a future rulemaking action.

If you write or call us regarding this petition, please make refer to this number.

Sincerely,

Gail L. Twitty  
Transportation Assistant  
Office of Hazardous Materials Standards



P-14099  
**TANK CONFERENCE**

**Truck Trailer Manufacturers Association**

1020 Princess Street • Alexandria, Virginia 22314-2247 • (703) 549-3010 • Fax (703) 549-3014

Richard P. Bowling  
President

February 22, 2001

Robert A. McGuire  
Associate Administrator  
Research & Special Programs Administration  
400 Seventh Street S.W.  
Washington, DC 20590-0001

Dear Mr. McGuire:

Historically, (before HM-183) cargo tanks for molten sulfur were constructed with shells made from 3/8 inch thick shells of 5454 H32 material. Typically, these tanks were approximately 50 inches in diameter and forty feet long. Molten Sulfur is a relatively dense material and is transported at 350° to 375° F. These tanks were manufactured by several cargo tank manufacturers, and continue to operate with good performance and safety records.

The stress levels to which these tanks were designed was 25% of the ultimate strength found in the Aluminum Association's "Aluminum standard and data, 1982" for "O" temper at the maximum design temperature of the tank. Presently, these tanks must be built to the allowable stress levels of ASME Sections II, table 1B.

The allowable stresses from these two references are shown below:

Allowable Stress Levels, pounds per square inch		
Temperature, °F	ASME table 1B	Aluminum Association
300	5500	7250
350	4100	none shown
400	3000	5500

The results of this change in stress levels is that the shells of these cargo tanks, which were formerly 3/8 inch thick, now need to be 1/2 inch thick. This results in an additional 930 pounds of weight, and \$2,400 in additional cost to the carrier. The 1/2 inch thickness is beyond the rolling capacity of some manufacturers. As a further result, very few of these tanks have been built in the last few years. Carriers have decided to keep

their old fleet running instead of retiring the old cargo tanks and replacing them with much heavier ones.

49CFR172.102 special provision B13c allows the use of the Aluminum Association's numbers for certain cargo tanks such as in "tars, liquid including road asphalt and oils, bitumen and cut backs".

Please also note that prior to the HM-183 molten sulfur was an unregulated product not listed in the Hazardous Materials Table.

We request that the special provision B13c be allowed for cargo tanks transporting Molten Sulfur, and that B13c be added to 49 CFR 172.101 Hazardous Material Table, at the entry for Molten sulfur.

With Kind Regards;



Jeff Sims  
Engineering Manager  
[Jeff@ttmanet.org](mailto:Jeff@ttmanet.org)

CC: TTMA Tank Conference Engineering Committee