



U.S. Department  
of Transportation

1200 New Jersey Avenue SE  
Washington, DC 20590

**Pipeline and Hazardous  
Materials Safety  
Administration**

**MAR 15 2012**

Mr. David Thompson  
Thompson Tank Inc.  
8029 Phlox Street  
Downey, CA 90241

Ref. No.: 11-0121

Dear Mr. Thompson:

This is in response to your May 26, 2011, letter requesting further clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) based on two letters issued by this office (Ref. No. 10-0219, 11-0002) regarding inspection and use of non-DOT specification cargo tank motor vehicles constructed from glass fiber reinforced plastics (GFRP) authorized by several Department of Transportation (DOT) special permits. Your questions are restated and answered below:

Q1. If the resin rich barrier is destroyed and replaced with a sprayed in lining, is the new liner still considered a corrosion barrier and not a lining?

A1. In our May 11, 2011 letter (11-0002), we clarified that GFRP cargo tanks authorized by DOT special permits incorporate a corrosion barrier that is a thin resin rich area that is part of the cargo tank wall. A spray lining used to repair the corrosion barrier would constitute a corrosion barrier and not a lining.

Q2. Some GFRP cargo tanks authorized by DOT special permits have a carbon layer between the corrosion barrier or lining material and the cargo tank wall for the purpose of spark testing the liner. Is this carbon layer also a corrosion barrier and not an interior lining? Is the inspection facility required to perform a spark test?

A2. Based on the information provided in your letter, the carbon appears to serve as a conductive layer and does not protect the cargo tank from attack from the lading. The carbon layer would not be considered a corrosion barrier or a lining material. However, linings on any cargo tanks that are manufactured with conductivity should be spark tested in accordance with the manufacturer's requirements.

Q3. When will the DOT inform the original manufacturers of the GFRP cargo tanks authorized by DOT special permits of their responsibilities to furnish inspection facilities, when requested, the proper procedures to verify the minimum thickness and structural integrity of the cargo tank wall and enforce compliance?

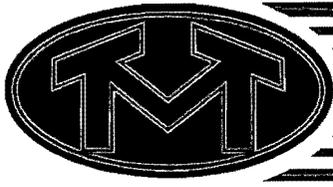
A3. The HMR require any person performing thickness testing to be trained in the proper use of the thickness testing device used in accordance with the manufacturer's instruction (§ 180.407(i)(2)). PHMSA has revised the special permits that authorize the manufacture, marking, sale and use of GFRP cargo tanks (e.g. DOT SP-9166, 10878, 11565, 12516, 14275, 14277, 14779) to include specific requirements for visual inspection in addition to those items required to be inspected by § 180.407. These requirements include an inspection to detect cracks, gouges, debonding or delamination of any layers. In accordance with these special permits, the manufacturer must be notified and authorize any repairs to the pressure vessel, including repairs to the corrosion barrier.

I hope this answers your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division at (202) 366-8553.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Supko". The signature is fluid and cursive, with the first name "Ben" and the last name "Supko" clearly distinguishable.

Ben Supko  
Acting Chief, Standards Development  
Standards and Rulemaking Division



THOMPSON TANK, INC.

ASME - D.O.T. CERTIFICATION  
D.O.T. INSPECTIONS - TESTING  
DESIGN ENGINEERING - CONSTRUCTION

Leary  
\$ 178.345-2  
\$ 178.347-1  
\$ 180.407  
Cargo Tanks  
11-0121

**THOMPSON VACUUM-PRESSURE UNITS**

May 26, 2011

U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration  
Attn: Ben Supko  
1200 New Jersey Avenue SE  
Washington, DC 20590

Ref: 11-0002

Dear Mr. Supko:

Thank you for your response, Ref. No.: 11-0002, Dated May 11, 2011, in reply to our request for clarifications regarding the inspection and testing of GFRP DOT-SP Cargo Tanks.

We are working with other Inspection, Testing, Lining and Repair Facilities in an attempt to provide competent DOT required inspection services that protect public safety and the operators that are using this equipment to haul some of the most hazardous materials being transported on public highways today. Please understand that we must have explicit answers and instructions to provide these professional services and that we appreciate your patience.

- Q1. If the resin rich corrosion barrier is destroyed and replaced with a sprayed in lining, is the new liner still considered a corrosion barrier, and not a lining?
- Q2. Some GFRP DOT-SP Cargo Tanks now have a carbon layer between the corrosion barrier, or interior liner, and the cargo tank wall for the purpose of spark testing the liner. Is this liner also considered a corrosion barrier, and not an interior lining? Is the inspection facility required to perform a spark test?

We now understand that the minimum thickness and the structural integrity of the cargo tank wall must be verified after a failure of the interior corrosion barrier

before it can be repaired or replaced. DOT states that the Original Manufacturer is responsible to provide the inspection facility with the proper procedures to verify the thickness and integrity of the cargo tank wall required to certify compliance.

Our original question, more clearly stated;

Q.3 When will DOT inform the Original Manufacturers of these GFRP DOT-SP Cargo Tanks of their responsibilities to furnish DOT Inspection Facilities, when requested, the proper procedures to verify the minimum thickness and structural integrity of the cargo tank wall, and enforce compliance?

Please understand that we are not interested in filing complaints. We are interested in obtaining the information required to perform effective inspection and repair services that comply with DOT regulations.

Thank you in advance for your kind consideration.

Best regards,  
THOMPSON TANK, INC.

A handwritten signature in black ink, appearing to read "David L. Thompson", with a long horizontal flourish extending to the right.

David L. Thompson

DLT/cs