



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

APR 06 2017

Mr. Albert Calkin  
Transportation Safety Consultant  
Innovative Safety Solutions, Inc.  
3310 Baldy Dr.  
Helena, MT 59602

Ref. No.: 16-0009

Dear Mr. Calkin,

This responds to your January 10, 2016 email, and subsequent telephone conversation with a member of my staff, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask several questions concerning Specification DOT 406 cargo tank motor vehicle (CTMV) manufacturing and registration requirements. Your questions are paraphrased and answered below, please note that the answers to Q1, Q4, and Q5 apply to manufacturers as defined in § 178.320 (includes attaching a cargo tank to a motor vehicle or to a motor vehicle suspension component that involves welding on the cargo tank wall) and not to assemblers, as defined in § 107.502(a)(2) of CTMV's who attach a cargo tank to the motor vehicle or to a motor vehicle component if no welding to the cargo tank wall is involved:

Q1. You seek confirmation that when a person manufactures a portion of more than one cargo tank and then at a later date takes one of the incomplete cargo tanks and manufactures a new complete CTMV, that person is responsible for issuing a certificate of compliance for the CTMV only when it is completed and ready to be used in DOT specification service.

A1. For Specification DOT 406 CTMV's, § 178.345-15(a) requires certification documents to be provided to the owner of the CTMV at or before the time of delivery. The various certification documents referenced in § 178.345-15 require signatures that certify that the CTMV design meets the applicable specification. These documents need not be signed until the CTMV is in full compliance with the applicable specification.

Q2. You seek confirmation that the date stamped on the nameplate for original test date and the cargo tank certification date and cargo tank date of manufacture stamped on the specification plate do not need to be stamped until the tank is certified by the person responsible for ensuring compliance with the regulations and are the dates when the CTMV is tested and certified as a complete DOT specification CTMV.

A2. Section 178.345-14(a) requires the manufacturer to certify that each CTMV has been designed, constructed and tested in accordance with the applicable specification cargo tank requirements and, when applicable, with Section VIII of the ASME Code. This certification shall be accomplished by marking the cargo tank as prescribed in § 178.345-14(b) and (c) and by preparation of the certificate prescribed in § 178.345-15. The marking on the nameplate for the original test date should be the date that required cargo tank testing was completed. The CTMV certification date (if different from the cargo tank certification date) marking on the specification plate is to be the date on which the CTMV has been tested and certified as a complete DOT specification cargo tank motor vehicle. The cargo tank date of manufacture on the specification plate should be date the cargo tank has been tested and certified as a DOT specification cargo tank.

Q3. You present a scenario where a person partially completes construction of a cargo tank and sells the incomplete cargo tank to another person for completion of the cargo tank manufacturing process and mounting on a CTMV. You state it is your understanding that the person who started construction of the cargo tank must create an incomplete Certificate of Compliance which identifies those items (i.e. closures and vents) which must be installed to complete the cargo tank manufacturing process. You ask for confirmation of your understanding that this incomplete Certificate of Compliance does not need to include items, such as accident damage protection, that need to be addressed by the person who manufactures the complete DOT specification cargo tank motor vehicle.

A3. Your understanding is correct. Section 178.345-15(e) requires the manufacturer of the incomplete cargo tank to state the specification requirements not complied with on the manufacturer's Certificate of Compliance. These specification requirements not complied with that are required to be noted on the Certificate of Compliance are limited to items required for the cargo tank itself to be considered compliant, not to items required to be addressed by the person who manufactures the complete DOT specification CTMV.

Q4. You present a scenario where a person purchases a cargo tank which is partially constructed to Specification DOT 406 standards, but certified as meeting the specification requirements with shortages, such as missing the required venting and or closures. The person purchasing the cargo tank with specification shortages then completes the construction of the cargo tank by installing the parts that were identified as shortages on the incomplete Certificate of Compliance, and using the now complete DOT specification cargo tank, manufactures a new complete DOT specification CTMV. You ask for confirmation of your understanding that this manufacturer of the completed CTMV must issue a single Certificate of Compliance which identifies only the parts that were added to meet the requirements of a DOT specification cargo tank and certifies that the complete CTMV meets the applicable DOT cargo tank motor vehicle specifications.

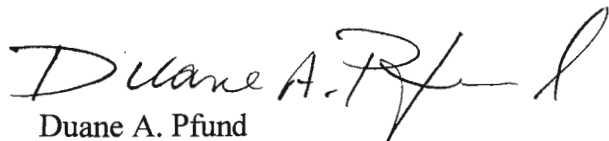
A4. Section 178.345-15(e) discusses certification requirements for cargo tanks manufactured with specification shortages. When the cargo tank is brought into full compliance with the applicable specification, the Registered Inspector shall issue a Certificate of Compliance stating details of the particular operations performed on the cargo tank, and the date and person accomplishing the compliance. This Certificate of Compliance requirement to describe the details of the particular operations performed on the cargo tank, and the date and person accomplishing the compliance is a separate document from the certificate required by § 178.345-15(b), (c), or (d) as applicable.

Q5. You ask if 49 CFR Part 180 requirements apply to those who manufacture cargo tank or cargo tank motor vehicles. Specifically, you reference § 180.413(e) requirements that require mounting of a cargo tank on a CTMV to be performed and certified by a Design Certifying Engineer and ask if these, and other Part 180 requirements apply to new cargo tank and CTMV manufacturers.

A5. The applicability of Part 180 as prescribed in § 180.1 states “this part prescribes requirements pertaining to the maintenance, reconditioning, repair, inspection and testing of packagings, and any other function having an effect on the continuing qualification and use of a packaging under the requirements of this subchapter.” The applicability of Subpart E of Part 180, specific to qualification and maintenance of cargo tanks, in § 180.401 states “this subpart prescribes requirements, in addition to those contained in parts 107, 171, 172, 173 and 178 of this subchapter, applicable to any person responsible for the continuing qualification, maintenance or periodic testing of a cargo tank.” Based on the limitations placed in these applicability sections, initial manufacturing of cargo tanks and CTMV and associated processes such as initial mounting of cargo tanks on a CTMV are not subject to requirements found in Part 180. The definition of manufacturer in § 178.320 was revised in a final rule issued under Docket HM-189M (October 1, 1996; 61 FR 51334). The preamble to the final rule stated that the definition was revised to clarify that the term does not include persons (i.e., assemblers) who attach a cargo tank to the motor vehicle or to a motor vehicle component if no welding to the cargo tank wall is involved. There are specific Part 180 requirements that apply to “assemblers” of CTMV’s.

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

Sincerely,



Duane A. Pfund  
International Standards Coordinator  
Standards and Rulemaking Division

**Goodall, Shante CTR (PHMSA)**

Webb  
107.502  
General Registration Reg.  
16-00009

**From:** Geller, Shelby CTR (PHMSA)  
**Sent:** Monday, January 11, 2016 2:01 PM  
**To:** Hazmat Interps  
**Subject:** FW: Request for a written interpretation

Dear Shante and Alice,

Forwarded is a request for a formal letter of interpretation.

Thanks,  
Shelby

**From:** Albert Calkin [mailto:acinnovativesafety@msn.com]  
**Sent:** Sunday, January 10, 2016 11:30 PM  
**To:** PHMSA HM InfoCenter  
**Subject:** Request for a written interpretation

U.S. DOT  
PHMSA Office of Hazardous Materials Standards  
Attn: PHH-10  
East Building  
1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001  
[phmsa.hm-infocenter@dot.gov](mailto:phmsa.hm-infocenter@dot.gov)

RE: Request for Interpretation

I have a series of questions regarding the applicability of the regulations as they apply to a person who is engaged in the manufacture and/or assembly of a new DOT Specification Cargo Tank and/or DOT Specification Cargo Tank Motor Vehicle. Additionally what are the specific requirements that apply when more than one manufacturer is involved in the design, construction and certification of a complete DOT Specification Cargo Tank Motor Vehicle? I have identified a few excerpts from the regulations that I feel are applicable to my questions. These excerpts are listed below followed by the areas for which I would like you to provide guidance.

In 49 CFR 107.502, Assembly is defined as the performance of any of the following functions when the function does not involve welding on the cargo tank wall:

1. The mounting of one or more tanks or cargo tanks on a motor vehicle or to a motor vehicle suspension component;
2. The installation of equipment or components necessary to meet the specification requirements prior to the certification of the cargo tank motor vehicle; or
3. The installation of linings, coatings, or other materials to the inside of a cargo tank wall.

In 49 CFR 178.320, there are several definitions that are listed below,

1. Manufacturer means any person engaged in the manufacture of a DOT specification cargo tank, cargo tank motor vehicle, or cargo tank equipment that forms part of the cargo tank wall. This term includes

attaching a cargo tank to a motor vehicle or to a motor vehicle suspension component that involves welding on the cargo tank wall. A manufacturer must register with the Department in accordance with subpart F of part 107 in subpart A of this chapter.

2. Cargo tank means a bulk packaging that:
  - a. Is a tank intended primarily for the carriage of liquids, gases, solids, or semi-solids and includes appurtenances, reinforcements, fittings, and closures (for tank, see §§178.337-1, 178.338-1, or 178.345-1, as applicable);
  - b. Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but that, by reason of its size, construction, or attachment to a motor vehicle, is loaded or unloaded without being removed from the motor vehicle; and
  - c. Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.
3. Cargo tank motor vehicle means a motor vehicle with one or more cargo tanks permanently attached to or forming an integral part of the motor vehicle.

In 49 CFR 178.345-1, it states, Specification DOT 406, DOT 407 and DOT 412 cargo tank motor vehicles must conform to the requirements of this section in addition to the requirements of the applicable specification contained in §§178.346, 178.347 or 178.348. Additionally it states, each cargo tank must be designed and constructed in conformance with the requirements of the applicable cargo tank specification.

In 49 CFR 178.345-15, it addresses certification of a cargo tank with specification shortages as follows; If a cargo tank is manufactured which does not meet all applicable specification requirements, thereby requiring subsequent manufacturing involving the installation of additional components, parts, appurtenances or accessories, the cargo tank manufacturer may affix the name plate and specification plate, as required by §178.345-14 (b) and (c), without the original date of certification stamped on the specification plate. The manufacturer shall state the specification requirements not complied with on the manufacturer's Certificate of Compliance. When the cargo tank is brought into full compliance with the applicable specification, the Registered Inspector shall stamp the date of compliance on the specification plate. The Registered Inspector shall issue a Certificate of Compliance stating details of the particular operations performed on the cargo tank, and the date and person (manufacturer, carrier, or repair organization) accomplishing the compliance.

In 49 CFR 180.401, it states, This subpart prescribes requirements, in addition to those contained in parts 107, 171, 172, 173 and 178 of this subchapter, applicable to any person responsible for the continuing qualification, maintenance or periodic testing of a cargo tank.

When reviewing all of the hazardous material regulations, including the specific sections listed above, are the following statements correct?

1. A person who designs, constructs and certifies a new cargo tank to the requirements for a DOT 406 specification, is a manufacturer and is responsible for ensuring all of the requirements of 49 CFR 178.345 and 49 CFR 178.346 are met for the cargo tank.
  - a. When the person manufactures a portion of more than one cargo tank and then at a later date, subsequently takes one of the incomplete cargo tanks and manufactures a new complete cargo tank motor vehicle that person is responsible for issuing a certificate of compliance for the cargo tank motor vehicle only when it is completed and ready to be used in DOT specification service. The date stamped on the Name plate for Original Test date and the date stamped on the Specification plate do not need to be stamped until the tank is certified by the person responsible for ensuring compliance with the regulations and are the dates when the cargo

tank motor vehicle is tested and certified as a new complete DOT specification cargo tank motor vehicle.

- b. Since a single person designed, constructed and certified the new complete cargo tank motor vehicle over an extended period of time, and since the same person completed the cargo tank motor vehicle in accordance with the requirements of 49 CFR 178.345 and 49 CFR 178.346 there is no requirement to create a certificate of compliance for the cargo tank and later create a certificate for the complete cargo tank motor vehicle. The person is only required to issue a single certificate of compliance for the completed cargo tank motor vehicle.
2. A person who designs, constructs and certifies a new cargo tank to the requirements for a DOT 406 specification, as a manufacturer, is responsible for ensuring all of the requirements of 49 CFR 178.345 and 49 CFR 178.346 are met for the cargo tank.
  - a. When this person does not complete the construction of the cargo tank and sells the incomplete cargo tank to another person for completion and mounting on a cargo tank motor vehicle, the person who started the construction of the cargo tank must create an incomplete certificate of compliance which identifies those items, such as closures and vents, which must be installed to complete the cargo tank. The incomplete certificate does not need to include items, such as those required to provide accident damage protection, that need to be addressed by the person who manufactures (i.e. designs, constructs and certifies) the complete DOT specification cargo tank motor vehicle.
  - b. A person purchases a cargo tank, which was partially constructed to DOT 406 specification, but the cargo tank was certified as meeting the specification requirements with shortages, such as missing the required venting and or closures. The person completes the construction of the cargo tank by installing the parts that were identified as shortages on the incomplete certificate of compliance. The person then, using the now complete DOT specification cargo tank, manufactures a new complete DOT specification cargo tank motor vehicle. The person must issue a single certificate of compliance which identifies only the parts that were added to meet the requirements of a DOT specification cargo tank and certifies that the complete cargo tank motor vehicle meets the DOT cargo tank motor vehicle specifications.
3. The applicability of 49 CFR Part 180.401 states “this subpart prescribes requirements applicable to any person responsible for the continuing qualification, maintenance or periodic testing of a cargo tank”. Since the newly manufactured cargo tank motor vehicle is not a DOT Specification package until it is certified by the manufacturer, the subpart (Part 180, subpart E) does not apply to a person who manufactures and/or assembles a newly designed, constructed and certified DOT specification cargo tank or cargo tank motor vehicle as outlined in any of the scenarios listed in the previous statements. Since the requirements of Part 180, subpart E do not apply to the manufacturing of a DOT specification cargo tank there is no requirement for a person engaged in the manufacturing process be a Registered Inspector except for the stamping and certification of the cargo tank motor vehicle as a DOT specification package as required by 49 CFR 178.345-15.

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