

East Building, PHH-30 1200 New Jersey Avenue S.E. Washington, D.C. 20590

## Pipeline and Hazardous Materials Safety Administration

# DOT-SP 9166 (ELEVENTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)

#### 2. PURPOSE AND LIMITATIONS:

- a. This special permit authorizes the transportation in commerce of those materials listed in paragraph 6 below in glass fiber reinforced plastic (GFRP) cargo tanks manufactured and certified by Comptank Corporation prior to September 1, 1995. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
- b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
- c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
- 3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
- 4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.102(c)(3) Special Provisions B15 and B23, §§ 173.241, 173.242, 173.243, 180.405, and 180.413(d) in that the use of non-DOT specification cargo tank motor vehicles is not authorized except as specified herein.
- 5. <u>BASIS</u>: This special permit is based on the safety and technical review conducted by the Pipeline and Hazardous Materials Safety Administration completed on April 14, 2010.

# 6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description				
Proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group	
Class 8 materials authorized to be transported in a lined MC-312 cargo tank motor vehicle, Class 8 liquid and semi-solid waste materials (specific chemical name or generic description as appropriate)	8	Various	I,II or III	
Class 3 liquid and semi-solid waste materials (specific chemical name or generic description as appropriate)	3	Various	I,II or	
Class 6.1 liquid and semi-solid waste materials (specific chemical name or generic description as appropriate)	6.1	Various	I,II or	
Class 9 liquid and semi-solid waste materials (specific chemical name or generic description as appropriate)	9	Various	I,II or	

## 7. SAFETY CONTROL MEASURES:

- a. <u>PACKAGING</u> Packagings prescribed are non-DOT specification glass fiber reinforced plastics (GFRP) cargo tank motor vehicles having a design pressure of 35 psig and a normal capacity of 5,680 U.S. gallons manufactured and certified by Comptank Corporation prior to September 1, 1995. No new construction is authorized.
  - (1) Tanks must be designed and constructed in accordance with Composite Engineering drawings CE-101-83 through CE-108-83 dated September 1983, calculations, and technical specifications on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

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- (2) For the transportation of hazardous waste materials, tanks must be designed and constructed in accordance with Composite Engineering drawing CE-101V-1-84 dated May, 1984, calculations, and technical specifications on file with the OHMSPA.
  - (i) Vacuum pumps and separators may not be mounted on the cargo tank shell or heads.
  - (ii) Tanks must have a minimum internal design pressure of 35 psig and a minimum external design pressure of 15 psig. The internal design pressure must be at least equal to the maximum pressure for unloading. The ASME "U" stamp is not required.
  - (iii) In place of the required internal valves, each tank may be equipped with one 6-inch maximum diameter bottom outlet stop valve and one optional 4-inch maximum diameter bottom inlet stop valve located near the rear of the tank protected by the under carriage. Each bottom outlet and each bottom inlet must be equipped with an additional shut-off valve, or a blank flange or sealing cap. Each stop valve must be provided with a remote means of closure located not less than 10 feet from the stop valve. In addition, for cargo tanks in Class 3 or Division 6.1 material service, each stop valve must be self-closing and must be able to be closed in case of fire or accident by an automatic heat-actuated means which must become effective at a temperature not over 250°F.

#### b. OPERATIONAL CONTROLS:

- (1) Tanks that are to be used in transporting Class 3 materials must be equipped with a spring loaded relief valve.
- (2) Compatibility of commodities and the GFRP cargo tank.
  - (i) The compatibility of each commodity offered for transportation and the GFRP cargo tank must be confirmed. Compatibility must be based on testing performed in accordance with ASTM C 581 "Standard Test Method for Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures", or compatibility

information provided by the composite material manufacturer.

- (ii) The cargo tank owner must maintain product compatibility data for as long as the cargo tank remains in active operation.
- (iii) Prior to loading a cargo tank, the cargo tank owner must determine that the product being loaded is compatible with the cargo tank.
- (iv) Shippers using cargo tanks authorized under this special permit must comply with the compatibility requirements of § 173.24(e).

### c. TESTING

- (1) The glass fiber reinforced plastic (GFRP) cargo tank motor vehicle shall meet all requirements for DOT Specification MC-307/312 Cargo Tank Motor Vehicles except that references to the ASME Code do not apply. Qualification and maintenance shall meet all requirements for DOT MC-307/312 CTMV's in Subpart E of Part 180.
- Initial qualification testing must be in accordance with § 180.405, except that any references to ASME Code requirements do not apply. Periodic requalification must include a hydrostatic test and an annual inspection of lining, which must be performed as described in the manufacturer's application. addition to those items required to be examined by the visual inspections specified in §§ 180.407(d) and (e), the visual inspections must include detection of cracks, gouges, debonding or delamination of any layers, and liner deterioration. Any cracks or contamination that are beyond the liner and extend into the structural layers will be considered structural repairs. Liner deterioration that includes significant "fiber bloom" or exposed glass fibers subject to chemical attack below the surface veil layers will be cause for repair. Linings on any tankers that are manufactured with conductivity should be spark tested according to the manufacturer's requirements.

# 8. SPECIAL PROVISIONS:

- a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modifications or changes are made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.
- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- c. In addition to the information contained on the metal certification plate, the following information must be plainly and durably marked on the cargo tank or another metal plate:

CARGO TANK MANUFACTURED BY XXXXXXXX, INC. XXXXXXXX, XX

DOT Reg. #:	CT-
CARGO TANK MFR:	
CARGO TANK MFR. SERIAL #:	
CARGO TANK DESIGN TEMP. RANGE:	-xx°F to xxx°F
NOMINAL WATER CAPACITY:	
MAXIMUM LADING DENSITY:	
SHELL MATERIAL:	
MINIMUM SHELL THICKNESS:	
HEAD MATERIAL:	
MINIMUM HEAD THICKNESS:	·
LINER/CORROSION BARRIER MATERIAL	
MIN. LINER/CORROSION BARRIER	
THICKNESS	·-
EXPOSED SURFACE AREA:	·-
SPECIFICATION:	DOT-SP 9166
CARGO TANK MOTOR VEHICLE MFR. VIN:	

d. The manufacturer's certificate retained by the motor carrier shall reflect the cargo tank manufacturer and final assembly and/or cargo tank motor vehicle (CTMV) and reflect compliance of the terms contained in the special permit.

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- e. Any modification, stretching or rebarrelling must be authorized in writing by the Office of Hazardous Materials Safety, Office of Special Permits and Approvals (OHMSPA). The manufacturer must be notified and authorize any repairs to the pressure vessel including the lining. Repairs that affect the structural integrity of the design that involve replacement of structural layers beyond the liner shall be considered "structural" and must be performed by the manufacturer. If total "structural" repair area is less than 2 sq. ft. in total area, the repair may be performed by an authorized service center approved by the manufacturer following written procedures provided by the cargo tank manufacturer.
- f. Each cargo tank must be reinspected and retested in accordance with § 180.407(c) as prescribed for DOT Specification MC-307/312 cargo tanks.
- g. Packagings permanently marked "DOT-E 9166", prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid.
- h. Prior to the first use of glass fiber reinforced plastics (GFRP) cargo tank motor vehicles under this special permit, each cargo tank must be: visually examined for cracks, gouges, debonding or delamination of any layers or liner deterioration which could adversely affect the cargo tanks structural integrity; and pressure tested.

  Additionally, each cargo tank must be identified by Vehicle Identification Number (VIN), Date of Manufacture, accident and repair history, a list of materials transported in the cargo tank and a reason for the replacement of the liner/corrosion barrier. The results of the visual inspection, pressure test and other cargo tank information must be submitted to the OHMSPA prior to using a glass fiber reinforced plastics (GFRP) cargo tank motor vehicles under this special permit.
- 9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

# 10. MODAL REQUIREMENTS:

a. A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

- b. Drivers must have been instructed as to necessary safeguards and proper procedures in the event of unusual delay, fire or accident.
- 11. <u>COMPLIANCE</u>: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 <u>et seq.</u>:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601  $\underline{\text{et seq.}}$ , when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

# 12. REPORTING REQUIREMENTS:

a. Any cracks, delaminations, gouges, debonding or linear deterioration found during the visual inspection that could substantially reduce the structural integrity of the cargo tank must be reported to the OHMSPA.

b. Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR § 171.15(b) Immediate notice of certain hazardous materials incidents, and 171.16(b) Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

Dr. Magdy El-Sibaie

Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at <a href="http://hazmat.dot.gov/sp\_app/special\_permits/spec\_perm\_index.htm">http://hazmat.dot.gov/sp\_app/special\_permits/spec\_perm\_index.htm</a>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

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