

October 17, 2006



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 10878
(FOURTEENTH REVISION)

EXPIRATION DATE: September 30, 2010

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Tankcon FRP Inc., Blainville, Quebec, Canada.
(U.S. Agent: National Resident Agent Services,
Incorporated, Wayne, PA)
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification fiberglass reinforced plastic (FRP) cargo tank motor vehicles described in paragraph 7 below for use in the transportation in commerce of certain Class 8 liquids described in paragraph 6 below. This special permit provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.102(c)(3) in that Special Provisions B15 and B23 are waived, § 173.203(a) in that the special permit number need not be shown on shipping papers and § 173.242 in that non-DOT specification cargo tanks are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Tankcon FRP, Inc., dated September 27, 2006, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/Division	Identification Number	Packing Group
Battery fluid, acid	8	UN2796	II
Corrosive Liquids, n.o.s.	8	UN1760	I, II, & III
Fluoroboric acid	8	UN1775	II
Fluorosilicic acid	8	UN1778	II
Hydrobromic acid, <i>with more than 49 percent hydrobromic acid</i>	8	UN1788	II
Hydrobromic acid, <i>with not more than 49 percent hydrobromic acid</i>	8	UN1788	II
Hydrochloric acid	8	UN1789	II
Hydrochloric acid and Sulfuric acid mixtures	8	UN1786	I
Hydrofluoric acid, <i>with not more than 60 percent strength</i>	8	UN1790	II
Hypochlorite solutions	8	UN1791	II
Potassium hydroxide, solution	8	UN1814	II
Sodium hydroxide solution	8	UN1824	II
Sulfuric acid <i>with not more than 51% acid</i>	8	UN2796	II
Other Class 8 materials authorized to be transported in a DOT Specification 412 cargo tank motor vehicle that are compatible with the material of construction of the cargo tank.	8	As Appropriate	As Appropriate

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7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are non-DOT specification fiberglass reinforced plastic (FRP) cargo tanks constructed as follows:

(i) A vessel having a nominal capacity of 4500 Imperial gallons (5404 US gallons), circumferentially reinforced by means of balsa sandwich construction, having an inside diameter of 60 inches and a design pressure of 40 psig with a safety factor of seven. The tanks must be constructed in accordance with TANKCON FRP Inc. drawing B-D1 dated November 9, 1977, and technical data supplied by TANKCON FRP Inc. dated November 30, 1992, February 19, 1993 and July 14, 1993, which are on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

(ii) A vessel having a nominal capacity of 6800 Imperial gallons (8166 US gallons), circumferentially reinforced by means of balsa sandwich construction, having an inside diameter of 72 inches and a design pressure of 40 psig with a safety factor of seven. The tanks must be constructed in accordance with TANKCON FRP Inc. drawing B-D1 dated November 9, 1977, and technical data supplied by TANKCON FRP Inc. dated November 30, 1992, February 19, 1993 and July 14, 1993, which are on file with OHMSPA.

(iii) A vessel having a nominal capacity of 4500 Imperial gallons (5404 US gallons), circumferentially reinforced by ring stiffeners, having an inside diameter of 60 inches and a design pressure of 35 psig with a safety factor of seven. Tanks must be constructed in accordance with TANKCON FRP Inc. drawing SR-D1 dated October 6, 1977 (except that overturn protection must be as delineated on drawing B-D1 dated November 9, 1977), and technical data supplied by TANKCON FRP Inc. dated November 30, 1992, February 19, 1993 and July 14, 1993, which are on file with OHMSPA.

b. Tanks must be in conformance with § 173.242 or § 173.243, as prescribed in the Hazardous Materials Table (§ 172.101), except that Provisions B15 and B23 are waived. In addition, they must meet all performance requirements for DOT 412 specification cargo tank motor vehicles, except as follows:

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§ 178.345-2 Material and material thickness.

Does not apply.

§ 178.345-3 Structural integrity.

References to the ASME Code do not apply. The physical properties of the FRP being employed must be used in calculating design stresses, with a factor of safety of at least seven.

§ 178.345-4 Joints.

Does not apply.

§ 178.345-7 Circumferential reinforcements.

Does not apply. However, circumferential reinforcement must be at least equivalent to that specified for steel and aluminum.

§ 178.345-14 Marking.

Applies except that the DOT Specification number is replaced by the special permit number "DOT-SP 10878" and requirements in subparagraphs (10), (13) and (14) are waived.

§ 178.345-15 Certification.

Manufacturer's certification documents must be appropriately modified to reflect compliance with the terms of this special permit.

§ 178.348-1 General requirements.

Except for paragraphs (ii), (iv), (v), (vi) and (vii), subsection (e) does not apply.

§ 178.348-2 Material and thickness of material.

Does not apply.

b. TESTING - The non-DOT specification cargo tanks must comply with all test requirements of § 178.345 and § 178.348 for a DOT 412 Specification cargo tank, and must meet all applicable requirements for periodic testing and inspection of Part 180 Subpart E for DOT 412 Specification cargo tank motor vehicles except that the internal and external visual

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inspections, lining test, leakage test and pressure retest must be performed annually. In addition to those items required to be examined by the visual inspections contained in § 180.407(d) and (e), the visual inspections must look for any cracks, delaminations, gauges, debonding at saddles and liner deterioration.

d. The compatibility of commodities and the FRP cargo tank must be based on ASTM C 581 "Standard Test Method for Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures". Test reports must be maintained by the owner or manufacturer for as long as the cargo tanks remains in active operation.

e. Any repair to the cargo tank not affecting its structural integrity must be made in accordance with manufacturer's recommendations. Any repair to the cargo tank affecting its structural integrity must be made by the manufacturer. After repair, the tank must be hydrostatically retested at one and one-half times the design pressure. A record of the repairs made and testing performed must be maintained by the manufacturer for as long as the cargo tank remains in service.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous

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Materials Special Permits and Approvals for a specific manufacturing facility.

- e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.
 - f. MARKING - Each cargo tank must be plainly marked on the right side near the front, in letters two inches high on a contrasting background, "DOT-SP 10878".
 - g. Packagings permanently marked 'DOT-SP 10878', 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. Packagings marked on or after October 1, 2007, must be marked 'DOT-SP 10878'.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: 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 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 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 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.

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No person may use or apply this special permit, including display of its number, when the 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 'special permit' 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: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - 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.:



for Robert A. McGuire
Associate Administrator
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: KFW/sln

