U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

July 11, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 10878
(TWENTIETH REVISION)

EXPIRATION DATE: 2029-05-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Tankcon FRP Inc
Blainville, Quebec, Canada

US AGENT: North America Transportation Consultants Inc.
Highstown, NJ

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. 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. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing special permit. These packagings may be used in accordance with 49 CFR 173.22a.

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 May 29, 2025, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication 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, *with more than 49 percent hydrobromic acid*	8	UN1788	II
Hydrobromic acid, *with not more than 49 percent hydrobromic acid*	8	UN1788	II
Hydrochloric acid	8	UN1789	II
Hydrochloric acid and Sulfuric acid mixtures	8	UN1786	I
Hydrofluoric acid, *with not more than 60 percent strength*	8	UN1790	II
Hypochlorite solutions	8	UN1791	II
Potassium hydroxide, solution	8	UN1814	II
Sodium hydroxide solution	8	UN1824	II
Sulfuric acid with not more than 51% acid	8	UN2796	II
Other Class 8 hazardous materials authorized to be transported in a DOT Specification 412 cargo tank motor vehicle that is compatible with the material of construction of the cargo tank	8	As Appropriate	As Appropriate

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 4,500 Imperial gallons (5,404 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 Safety (OHMS).

(ii) A vessel having a nominal capacity of 6,800 Imperial gallons (8,166 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 OHMS.

(iii) A vessel having a nominal capacity of 4,500 Imperial gallons (5,404 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 OHMS.

b. Tanks must be in conformance with §§ 173.242 or 173.243, as prescribed in the Hazardous Materials Table (§ 172.101), except that Special 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:

§ 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), paragraph (e) does not apply.

§ 178.348-2 Material and thickness of material. Does not apply.

c. TESTING:

(1) The fiber reinforced plastic (FRP) cargo tank motor vehicle shall meet all requirements for DOT Specification 412 Cargo Tank Motor Vehicle except that references to the ASME Code do not apply. Qualification and maintenance shall meet all requirements for DOT 412 CTMV's in Subpart E of Part 180.

(2) 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. In 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.

d. Compatibility of commodities and the FRP cargo tank.

(1) 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.

(2) The cargo tank owner must maintain product compatibility data for as long as the cargo tank remains in active operation.

(3) Prior to loading a cargo tank, the cargo tank owner must determine that the product being loaded is compatible with the cargo tank.

(4) Shippers using cargo tanks authorized under this special permit must comply with the compatibility requirements of § 173.24(e).

e. Any modification, stretching, or rebarrelling must be authorized in writing by OHMS. 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. The grantee of the special permit shall inform OHMS of the person who is manufacturing the GFRP shells under the terms of the special permit. The grantee may not utilize a new person to manufacture the GFRP shells unless acknowledged in writing by OHMS. Persons manufacturing the GFRP shells may be inspected by PHMSA or other government agencies to verify their capability to perform their manufacturing functions authorized under the terms of the special permit.

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 modification or change is 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. In addition to the information contained on the nameplate, the following information must be plainly and durably marked on the cargo tank or another metal plate:

CARGO TANK MANUFACTURED BY
XXXXXXXX, INC.
XXXXXXX, XX

DOT Reg. #:	CT-	_____
CARGO TANK MFR:		_____
CARGO TANK MFR. SERIAL #:		_____
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 10878
CARGO TANK MOTOR VEHICLE MFR. VIN:		_____

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.

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. Each cargo tank must be reinspected and retested in accordance with § 180.407(c) as prescribed for DOT Specification 412 cargo tanks.

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:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, Parts 171-180.
- 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.

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 "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: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notices 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 William Quade
Acting 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-13.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SEG/Casey Chambers