U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

December 06, 2021

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 12130
(ELEVENTH REVISION)

EXPIRATION DATE: 2025-10-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: FIBA Technologies, Inc.
Littleton, MA

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, mark, sale, and use of seventeen non-DOT specification vacuum insulated portable tanks conforming with all regulations applicable to a DOT Specification MC 338 cargo tank motor vehicle, except as specified herein, for the transportation in commerce of the materials authorized by this special permit. 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. New construction of the authorized non-DOT specification portable tank is prohibited.

d. 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 § 173.315, § 173.318, and § 176.76(g) in that a non-DOT specification portable tank is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of FIBA Technologies, Inc. dated November 5, 2021, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Carbon dioxide, refrigerated liquid	2.2	UN2187	N/A
Argon, refrigerated liquid *(cryogenic liquid)*	2.2	UN1951	N/A
Nitrogen, refrigerated liquid *(cryogenic liquid)*	2.2	UN1977	N/A
Oxygen, refrigerated liquid *(cryogenic liquid)*	2.2	UN1073	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

(1) Packaging prescribed is a non-DOT specification portable tank designed, constructed, and "U" stamped in accordance with Section VIII, Division 1 of the ASME Code. The portable tank is vacuum insulated and is enclosed in an ISO frame. The portable tank must conform to FIBA Technologies drawing VS-CO2-17P-01 Rev 02, VS-HDS-4220-01 dated 5/2/00 and VS-HDS-4220-02 dated 5/4/00, and related drawings and calculations on file with the Office of Hazardous Materials Safety (OHMS). The design criteria for the inner tank are as follows:

Lading:	Carbon dioxide	Argon, Nitrogen, or Oxygen
Design Pressure	24.13 bar (350 psig)	17.24 bar (250 psig)
Temperature	-40 °C to 93 °C (-40 °F to 200 °F)	-195 °C (-320 °F)
Water Capacity	15,974 liters (4,220 US gals)	15,974 liters (4,220 US gals)
Head and Shell material	SA 612N	SA 240 304
Minimum Head thickness	18.33 mm (0.722 in)	14.44 mm (0.5687 in)

Minimum Shell thickness	18.51 mm (0.729 in)	14.55 mm (0.5729 in)
Inside diameter	1981 mm (78 inches)	1981 mm (78 inches)
Overall length	5550 mm (218.4 inches)	5550 mm (218.4 inches)

(2) Additionally, each tank must conform to the requirements contained in § 178.338 except as follows:

§ 178.338-2 Material.

* * *

(c) Impact testing is not required.

* * *

§ 178.338-6 Manholes.

(a) Manholes are optional. If provided, manholes must conform to the requirements of the ASME Code and the tank must be provided with a means of entrance and exit through the jacket, or the jacket must be marked to indicate the access hole location.

§ 178.338-9 Holding Time.

(a) In lieu of tests, holding times have been established by calculation for the following materials:

Carbon dioxide: 45 days

Argon: 43 days

Nitrogen: 38 days

Oxygen: 57 days

(b) Not applicable.

(c) Not applicable.

§ 178.338-10 Collision damage protection. This section does not apply.

§ 178.338-13 Supports and anchoring.

(a) * * *

(b) and (c) The portable tank need not conform to § 178.338-13(b) or (c). The portable tank must meet the definition of "container" specified in 49 CFR 450.3(a) and must fully comply with the applicable provisions of 49 CFR parts 450-453, and each design must be qualified in accordance with § 178.270-13(c).

b. TESTING: Each tank must be reinspected and retested once every five years in accordance with the procedure prescribed in § 180.605 for DOT Specification 51 portable tanks. The test pressure for the inner tank must be determined by the following formulas:

If there is no vacuum in the outer jacket during the test:

$P_T = 1.25 \times P_d$

If vacuum exists in the outer jacket during test:

$P_T = [1.25 \times P_d] - 14.7$

Where:

P_T = Test pressure, psig

P_d = Design pressure (the sum of the maximum allowable working pressure, liquid head and 14.7 psi)

c. OPERATIONAL CONTROLS:

(1) Each portable tank must be prepared and shipped as required in 49 CFR 173.318, as applicable for the lading.

(2) Shipments by cargo vessel must conform with the following:

(i) The package must conform with § 176.76(g). Portable tanks may be over stowed only if enclosed in ISO-type frames and otherwise suitably protected. Portable tanks must be stowed such that they are readily accessible and can be monitored in accordance with the provisions of this special permit.

(ii) The legend "One-Way Travel Time ___ Hours" or "OWTT Hours" must be marked on the shipping paper and on the dangerous cargo manifest immediately after the container description. The OWTT is determined by the formula:

OWTT = MRHT - 24 hours.

(iii) Any lading road relief valve set at a pressure lower than that prescribed for the (safety) pressure relief valve must be closed during transportation by cargo vessel unless the holding time was determined based on the setting of the pressure control valve.

(3) No person may transport or offer for transportation a charged portable tank unless the pressure of the lading is equal to or less than that used to determine the marked rated holding time MRHT and the OWTT is equal to or greater than the elapsed time between the start and termination of travel.

(4) The actual holding time for each tank must be determined after each shipment. If it is determined that the actual holding time is less than 90 percent of the MRHT of the tank, the tank may not be refilled until it is restored to its MRHT or the tank is re-marked with the reduced holding time determined by this examination.

(5) The holding time and the MRHT of the first portable tank must be determined and results thereof must be submitted to OHMS prior to initial shipment.

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. 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 Materials Safety 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 portable tank must be plainly marked "DOT-SP 12130" on both sides near the middle, in letters at least two inches high on a contrasting background.

g. No new construction is authorized after January 1, 2003.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or 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, 49 CFR 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.
- 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 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: 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 William Schoonover
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: LM/NICKS