March 28, 2024



Pipeline and Hazardous Materials Safety Administration 1200 New Jersey Avenue, SE Washington, DC 20590

DOT-SP 20646 (THIRD REVISION)

EXPIRATION DATE: 2028-02-29

(FOR RENEWAL, SEE 49 CFR 107.109)

1. <u>GRANTEE</u>: Omni Tanker Pty. Ltd. Smeaton Grange, New South Wales, Australia

> <u>US AGENT</u>: North American Transportation Consultants, Inc. Hightstown, NJ

2. <u>PURPOSE AND LIMITATIONS</u>:

a. This special permit authorizes the manufacture, mark, sale, and use of nonspecification "T7" and "T10" UN portable tanks constructed of carbon fiber reinforced plastic (CFRP) conforming to all requirements of a UN portable tank, except as specified herein. The portable tanks, mounted in ISO frames, are authorized for the transportation in commerce of the hazardous 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. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not 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. <u>REGULATORY SYSTEM AFFECTED</u>: 49 CFR Parts 106, 107 and 171-180.

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- 4. <u>REGULATIONS FROM WHICH EXEMPTED</u>: 49 CFR § 107.503(b) and 107.503(c) in that the manufacturer is not required to hold an ASME U stamp or National Board R stamp; § 178.274(b), § 178.274(c), § 178.274(d), and § 172.102(c)(3) provision B53 in that UN portable tanks constructed of carbon fiber reinforced plastic (CFRP) are not authorized, except as specified herein; § 172.102(c)(7)(ii) in that shell thickness for "T7" and "T10" portable tank instructions do not apply.
- 5. <u>BASIS</u>: This special permit is based on the application of Omni Tanker Pty. Ltd. dated March 15, 2024, submitted in accordance with § 107.109.

Hazardous Material Description					
Proper Shipping Name	Hazard Class/ Division	Identi- fication Number	Packing Group		
Class 8 hazardous materials authorized to be transported in a polyethylene lined UN portable tank and included in the compatibility list submitted and on file with the Office of Hazardous Materials Safety (OHMS) - specific chemical name or generic description as appropriate	8	As appropriate	I, II, or III		
Hydrogen, peroxide, aqueous solutions with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary)	5.1	UN2984	III		
Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)	5.1	UN2014	II		
Hydrogen, peroxide, aqueous solutions with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary)	5.1	UN2014	П		
Hydrogen peroxide, stabilized <i>or</i> Hydrogen peroxide aqueous solutions, stabilized <i>with more</i> <i>than 60 percent hydrogen peroxide</i> ¹	5.1	UN2015	Ι		

6. <u>HAZARDOUS MATERIALS (49 CFR 172.101)</u>:

Hazardous Material Description				
Proper Shipping Name	Hazard Class/ Division	Identi- fication Number	Packing Group	
Perchloric acid with not more than 50 percent acid by mass	8	UN1802	Π	
Potassium chlorate, aqueous solution	5.1	UN2427	Π	
Sodium chlorate, aqueous solution	5.1	UN2428	II or III	
Calcium chlorate aqueous solution	5.1	UN2429	II or III	
Organic peroxide type F, liquid ²	5.2	UN3109	N/A	
Chlorates, inorganic, aqueous solution, n.o.s. ³	5.1	UN3210	II or III	
Perchlorates, inorganic, aqueous solution, n.o.s. ⁴	5.1	UN3211	II or III	

¹May not exceed 70 percent hydrogen peroxide.

²Before offering an organic peroxide for transportation under the terms of this special permit, it is the responsibility of the offeror to: 1) confirm that an organic peroxide formulation is listed in the Table in § 173.225(g) and that the tank conforms to § 173.225(h)(3) or 2) apply for and be granted an approval in accordance with § 173.225(h) that authorizes the transportation of the organic peroxide formulation in the bulk packagings authorized by this special permit.

³Authorized solutions must only contain strontium chlorate or mixtures composed of strontium chlorate and other chlorates or perchlorates listed by name in this paragraph 6., and must be included in the compatibility list submitted and on file with OHMS.

⁴Authorized solutions must only contain calcium perchlorate, magnesium perchlorate, potassium perchlorate, sodium perchlorate, strontium perchlorate or mixtures composed of these perchlorates and/or other chlorates listed by name in this paragraph 6. and must be included in the compatibility list submitted and on file with OHMS.

7. <u>SAFETY CONTROL MEASURES</u>:

a. <u>PACKAGING</u>:

(1) The authorized packaging is a non-specification carbon fiber reinforced

plastic (CFRP) UN portable tank conforming to all regulations applicable to a UN portable tank, except as specified herein.

(2) Each portable tank must have a maximum allowable working pressure (MAWP) of 40 psig, and a design margin of at least 4.0:1. Maximum capacity must be 6,208 US water gallons (23.5 kL).

(3) Each portable tank and corresponding ISO frame must be designed and constructed in accordance with OMNI Tanker Pty. Ltd. drawing L4ISO_0000_00-01 Rev. A.1 dated April 19, 2018. The corresponding calculations and specifications for the CFRP portable tank and frame design must be on file with OHMS.

(4) Each portable tank must be in compliance with §§ 173.241, 173.242, or 173.243 as prescribed in the Hazardous Materials Table (§ 172.101), except as specified herein. In addition, it must meet all requirements for a UN portable tank (§§ 178.274 and 178.275), except as follows:

(i) § 178.273 and 178.274: Any reference to ASME Code requirements do not apply.

(ii) § 178.273 and 178.274: Type of material and wall thickness do not apply. Portable tank shell, heads, manway, liner, and fittings must be constructed in accordance with the data on file with the OHMS.

(iii) Each portable tank utilizing bottom openings must meet the requirements of the "T7" portable tank instruction found in § 172.102, except for the shell thickness, and may be used as a "T7" portable tank.

(iv) Each portable tank utilizing top openings must meet the requirements of the "T10" portable tank instruction found in § 172.102, except for the shell thickness, and may be used as a "T10" portable tank.

(v) The certificate of compliance must be retained by the owner of the portable tank and shall reflect the portable tank manufacturer and reflect compliance of the terms contained in the special permit.

(vi) Each portable tank must be plainly and durably marked on both sides near the middle in letters at least two inches in height on a contrasting background "DOT-SP 20646" as specified in § 172.302(b) and (c).

(vii) § 180.605: Any modification must be authorized in writing by OHMS. The portable tank manufacturer must be notified and authorize

any repairs to the pressure vessel including lining. Repairs that effect the structural integrity of the portable tank design that involve replacement of structural layers shall be considered "structural" and must be performed by the manufacturer of the portable tank. If total "structural" repair area is less than 2 square feet in total area the repair may be performed by an authorized service center approved by the manufacturer following written procedures provided by the portable tank manufacturer.

(viii) Specification plate and name plate requirements must be appropriately modified to reflect compliance with terms of this special permit and must display shell thickness and liner thickness.

(ix) The grantee may not utilize a new entity to manufacture the CFRP portable tanks unless acknowledged in writing by OHMS. Persons manufacturing the CFRP portable tanks 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.

b. <u>TESTING</u>:

(1) The CFRP portable tank shall meet all requirements for a UN portable tank except that references to the ASME Code do not apply. Qualification and maintenance shall meet all requirements for UN portable tanks in Subpart G of Part 180.

(2) Initial qualification testing must be in accordance with § 180.603, except that any references to ASME Code requirements do not apply.

(3) The intermediate and periodic requalification must be in accordance with § 180.605 and must include an internal/external visual inspection and a hydrostatic pressure test as specified. In addition to those items required to be examined by the visual inspections specified in § 180.605, 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 to require structural repairs. Liner deterioration that includes significant "fiber bloom" or exposed carbon fibers subject to chemical attack below the surface layers will be cause for repair. Linings on any portable tanks that are manufactured with conductivity should be spark tested according to the manufacturer requirements.

(4) If defects requiring repair are found in the liner or shell, OHMS must be notified of the following: which portable tank was damaged, the defects found,

and the repairs made. The repaired portable tank will then be required to complete internal/external visual inspections annually.

c. <u>OPERATIONAL CONTROLS:</u>

(1) The compatibility of commodities and the CFRP portable tank must be based on the compatibility list submitted and on file with OHMS.

(2) Test reports must be maintained by the owner or manufacturer for as long as the portable tank remains in active operation.

(3) Portable tanks fitted with bottom openings may be used to transport hazardous materials authorized to be transported in "T7" portable tanks.

(4) Portable tanks fitted with top openings may be used to transport hazardous materials authorized to be transported in "T10" portable tanks.

8. <u>SPECIAL PROVISIONS</u>:

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 <u>name of the manufacturer and location (city and state) of the facility at which it is manufactured</u> or (2) marked with a <u>registration symbol</u> designated by the Office of Hazardous Materials Safety <u>for a specific manufacturing facility</u>.

e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. <u>MODES OF TRANSPORTATION AUTHORIZED</u>: Motor vehicle and rail freight.

- 10. <u>MODAL REQUIREMENTS</u>: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
- 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 <u>et seq</u>., 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. <u>REPORTING REQUIREMENTS</u>: 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, inwriting, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

and &

for William Schoonover Associate Administrator for Hazardous Materials Safety

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Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building PHH-13, 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 <u>https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search</u>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: VC/Casey Chambers