

August 1, 2014



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14815
(FOURTH REVISION)

EXPIRATION DATE: June 30, 2018

(FOR RENEWAL, SEE 49 CFR § 107.109.)

1. GRANTEE: Air Products and Chemicals, Inc.
Allentown, PA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of fifteen vacuum insulated UN portable tanks conforming to the requirements of § 172.102(c)(7) PORTABLE TANK CODE T75 which are designed and constructed in accordance with the EN 13530 standard instead of the ASME Code Section VIII for export only of nitrous oxide, refrigerated liquid. 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. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.318 and 176.30 in that portable tanks are not authorized, except as specified herein.

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5. BASIS: This special permit is based on the application of Air Products and Chemicals, Inc. dated June 26, 2014 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Nitrous oxide, refrigerated liquid	2.2	UN2201	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a UN portable tank conforming to the requirements of § 172.102(c)(7) PORTABLE TANK CODE T75 which are designed, constructed, certified and stamped in accordance with EN 13530 with a design margin of 3.2:1 based on actual material properties. Each tank must conform to the design criteria set forth in the Approval Certificates below:

Owner's Number	Manufacturer	Manufacturer Serial Number	Approval Certificate
SFCU 200609 3	Chart/Ferox	47196	DNV S-3758
SFCU 200610 7	Chart/Ferox	47197	DNV S-3758
SFCU 200611 2	Chart/Ferox	47398	DNV S-3758
SFCU 200612 8	Chart/Ferox	47399	DNV S-3758
SFCU 200613 3	Chart/Ferox	47415	DNV S-3758
SFCU 200614 9	Chart/Ferox	47416	DNV S-3758
SFCU 200615 4	Chart/Ferox	47489	DNV S-3758
SFCU 200616 0	Chart/Ferox	47490	DNV S-3758

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Owner's Number	Manufacturer	Manufacturer Serial Number	Approval Certificate
SFCU 200617 5	Chart/Ferox	47491	DNV S-3758
SFCU 200718 7	M1 Engineering	CC/204/06	Royal Sunalliance SS/0615274/1
SFCU 200719 2	M1 Engineering	CC/205/06	Royal Sunalliance SS/0615274/1
SFCU 200720 6	M1 Engineering	CC/206/06	Royal Sunalliance SS/0615274/1
SFCU 200721 1	M1 Engineering	CC/207/06	Royal Sunalliance SS/0615274/1
SFCU 200722 7	M1 Engineering	CC/208/06	Royal Sunalliance SS/0615274/1
SFCU 200723 2	M1 Engineering	CC/209/06	Royal Sunalliance SS/0615274/1

b. TESTING -

(1) Each tank must be inspected, tested, and repaired as specified in § 180.605 for UN portable tanks.

(2) In place of the requirement for visual inspection in § 180.605(g), before and after vacuum readings must be used to detect leakage. Nitrogen or an inert gas may be used as a test medium in place of air or water as required by § 180.605(h) (3). The test pressure for the inner tank must be determined from the following formula:

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

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) The following documentation must be submitted to and acknowledged in writing by OHMEA prior to the first shipment:

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(i) Suitable calculations to show that the actual venting capacity of the pressure relief devices provided on each tank exceeds the capacity required as calculated in accordance with § 178.277(e)(4).

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

(3) For vessel shipment, stowage shall be limited to above deck only, stowage code "D" as defined in § 172.101(k), and clear of living quarters in accordance with § 176.84, code "40".

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 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. Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-SP 14815"

d. New construction is not authorized.

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

10. MODAL REQUIREMENTS:

a. 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.

b. Shipments by cargo vessel must conform with the following:

(1) The package and its stowage must conform with § 176.76(g). In all situations, the portable tanks must be stowed such that they are readily accessible

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and can be monitored in accordance with the provisions of this special permit. Portable tanks may be overstowed only if enclosed in ISO frames with valid CSC approval plate and the following provisions are met:

(i) The pressure of the lading is equal to or less than that used to determine the marked rated holding time (MRHT) and the one way travel time (OWTT) is equal to or greater than the elapsed time between the start and termination of travel.

(ii) 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% of the MRHT of the tank, a charged tank may not be overstowed until it is restored to its MRHT or the tank is re-marked with the reduced holding time determined by this special permit.

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

$$\text{OWTT} = \text{MRHT} - 24 \text{ hours.}$$

(3) A written record of the portable tank's pressure and ambient (outside) temperature at the following times must be prepared for each shipment.

(i) At the start of each trip;

(ii) Immediately before and after any manual venting;

(iii) At least every 24 hours; and

(iv) At the destination point.

(4) 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.

c. The portable tank may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.

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, 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 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 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 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: SGrey