



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**January 24, 2022**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 7274  
(THIRTEENTH REVISION)

**EXPIRATION DATE: 2025-12-31**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Linde Inc.  
Danbury, CT
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of certain cryogenic liquids in non-DOT portable tanks. 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. Party status will not 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 § 172.101, § 173.318, § 173.320, § 176.30, and § 176.76(h) in that non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Linde Inc. dated September 30, 2021, submitted in accordance with § 107.109 and additional information dated November 23, 2021.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Argon, refrigerated liquid ( <i>cryogenic liquid</i> )	2.2	UN1951	N/A
Nitrogen, refrigerated liquid <i>cryogenic liquid</i>	2.2	UN1977	N/A
Oxygen, refrigerated liquid ( <i>cryogenic liquid</i> )	2.2	UN1073	N/A

7. SAFETY CONTROL MEASURES:

- a. Prescribed packagings are non-DOT specification vacuum insulated portable tanks made to CGA proposed DOT Specification 51L, dated November 1963, and Linde model 200-VCC mounted on skids or in an ISO type frame.
- b. Each tank must be prepared and shipped as required in § 173.318 as applicable for the lading. Maximum gross weight of each tank, charged with the specified lading, must be as follows:
- (1) Liquid argon: 32,300 lbs.
  - (2) Liquid nitrogen: 23,600 lbs.
  - (3) Liquid oxygen: 28,700 lbs.
- c. Each portable tank must be equipped with one or more pressure control devices set-to-discharge at not over 20 psig.
- d. 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:
- $$\text{OWTT} = \text{MRHT} - 24 \text{ hours.}$$
- e. A written record of the portable tank’s pressure and ambient (outside) temperature at the following times must be prepared for each shipment.
- (1) At the start of each trip;
  - (2) Immediately before and after any manual venting;

- (3) At least every 24 hours; and
  - (4) At the destination point.
- f. 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.
- g. Each pressure relief valve, pressure controlling valve and frangible disc must be arranged so that discharge will not impinge upon any part of the vessel, the tank itself or any other cargo.
- h. Each portable tank must be securely installed on a flat-bed trailer or enclosed in an ISO frame. "On deck only" stowage is authorized.
- i. Each tank must be plainly and durably marked on both sides near the middle in letters and numbers at least two inches high on a contrasting background, "DOT-SP 7274".

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 modification or change is 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. A measured holding time test described in paragraph 8.d. below must be performed on one tank of each design. The test may be done in conjunction with an actual shipment.
- d. To determine the "One-Way travel time" (OWTT), a measured holding time test must be performed with the tank charged with the intended commodity as prescribed in paragraph 7.b. above. The equilibrium pressures and ambient temperatures must be recorded at 6-hour intervals until the pressure level of the contents reaches a pressure not to exceed that at which the lowest pressure relieving device is set to open. This total time lapse in hours must be noted "measured holding time at \_\_\_\_°F. average temperature". The measured holding time must be adjusted to the equivalent holding time at 80 °F. to establish the rated holding time (RHT). The holding time stamped on the jacket nameplate (marked rated holding time--MRHT) may be equal to or less than the established RHT.

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

- e. The time required between the loading and subsequent unloading of the tank at its final destination must not exceed the OWTT as determined above.
- f. Each portable tank must be reinspected and retested once every 5 years in accordance with § 173.32(e) at a pressure (in psig) of 14.7 plus 1.25 times the sum of the design pressure and the static head as prescribed for DOT 51 Specification portable tanks.
9. MODES OF TRANSPORTATION AUTHORIZED: Cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel 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, 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 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 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: dl/NICKS