



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**January 22, 2026**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 22165

**EXPIRATION DATE: 2026-12-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Noble Gas Systems Inc.  
Wixom, MI
2. PURPOSE AND LIMITATIONS:
  - a. This emergency special permit authorizes the manufacture, mark, sale, and use of non-DOT specification composite cylinders (dry composite pressure vessels (DCPVs)) with a non-load sharing plastic liner that meet the ISO 11119-3 Standard, except as specified herein. 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. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302(a) in that the use of a non-DOT specification cylinder is authorized, as provided herein.
5. BASIS: This emergency special permit is based on the application of Noble Gas Systems Inc. dated December 15, 2025, submitted in accordance with § 107.117 and the determination it is necessary to support an essential governmental function.

Tracking Number: 2025124867

6. HAZARDOUS MATERIALS (49 CFR 172.101):

| <b>Hazardous Material Description</b> |                               |                              |                      |
|---------------------------------------|-------------------------------|------------------------------|----------------------|
| <b>Proper Shipping Name</b>           | <b>Hazard Class/ Division</b> | <b>Identification Number</b> | <b>Packing Group</b> |
| Argon, compressed                     | 2.2                           | UN1006                       | N/A                  |
| Hydrogen, compressed                  | 2.1                           | UN1049                       | N/A                  |
| Helium, compressed                    | 2.2                           | UN1046                       | N/A                  |
| Neon, compressed                      | 2.2                           | UN1065                       | N/A                  |
| Nitrogen, compressed                  | 2.2                           | UN1066                       | N/A                  |

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packagings are non-DOT specification composite cylinders (dry composite pressure vessels (DCPVs)) with a non-load sharing plastic liner manufactured using the braiding technology and segmented design conforming to the specifications in the Noble Gas System Inc. drawing on file with the Office of Hazardous Materials Safety (OHMS) and described in the application on file with the OHMS. Each DCPV must meet all the design and construction requirements for UN composite cylinders specified in § 178.71(1) and in the ISO 11119-3 Standard, except as follows:

- (1) Scope § 1: Composite cylinders under this special permit are composed of dry composite pressure vessels (DCPVs) with a non-load-sharing plastic liner manufactured using braiding technology without using resin. The DCPVs are limited to a minimum water volume of 1.8 liters and a maximum water volume of 445 liters and a working pressure up to 350 bar (5,076 psi),
- (2) Design (General Requirement) § 7.1.4: The minimum fiber stress ratio for braided reinforcement must be 2.1 or greater.
- (3) Type approval procedure (General Requirement) § 8.1:

(i) A DOT Independent Inspection Agency (IIA) approved in writing by the Associate Administrator for Hazardous Materials Safety (AAHMS) in accordance with 49 CFR Part 107, Subpart I must review the results of design qualification testing that was submitted in the application for special permit. The IIA must either verify that the cylinder design meets the requirements of the special permit based on the testing and other documentation submitted in the application for special permit, or the IIA may require additional testing and/or information from the manufacturer to verify the cylinder design meets all requirements of the special permit. Prior to production of cylinders, the IIA's verification of the cylinder design must be submitted to and acknowledged in writing by the OHMS.

(ii) Prior to any manufacture of cylinders under this special permit, an IIA approved in writing by the AAHMS must provide inspections and verifications of all batch testing and all new design qualification testing in accordance with the requirements of this special permit.

(4) Hydraulic Elastic Expansion Test, § 8.5.2: Expansion test is not required.

(5) Environmentally Assisted Stress Rupture Test, § 8.5.7: The test must be performed in accordance with § 8.5.7, except the holding temperature for 1000 hours was 55 °C temperature.

(6) Saltwater Immersion Test, § 8.5.14: This test is not required since the cylinder is not authorized for underwater applications.

(7) Resin Shear Strength Test, § 8.5.19: This test is not required since the DCPVs do not use resin.

(8) Marking § 10.1 & 10.2: Marking must contain the following:

(i) DOT special permit number (DOT-SP 22165) followed by working pressure expressed in bar (psig). Marking shall be on a label permanently attached to the outside of the cylinder.

(ii) A serial number and the manufacturer's identification number or a symbol as obtained from the Associate Administrator for Hazardous Materials Safety, located just below or immediately following the DOT marking. The serial number and the manufacturer's identification number may be placed on the vessel provided the markings are accessible for inspection.

(iii) The DOT Independent Inspector Agency (IIA) official mark must be placed near the serial number. The marking must contain the date (month and year) of the initial hydraulic proof pressure test for that cylinder.

(iv) The size of the letters and numbers used must be at least 0.64 cm (1/4 inch) high if space permits.

(v) The following are examples of an authorized format for marking:

DOT-SP AAAAA-YYYY

(where AAAAA is the special permit number and YYYY is the working pressure)

CCCC MMI

(where CCCC is the serial number and MMI is the manufacturer's mark or symbol)

DDD - MM/YY

(where DDD is the inspector's mark and MM/YY is the month and year of the hydraulic proof pressure test).

Additional markings are permitted, provided the additional markings do not obscure the required marking and are not detrimental to the integrity of the cylinder. Provisions for marking of the required requalification dates and RIN information must be made near the cylinder markings.

b. **REQUALIFICATION**: Each cylinder must be requalified once every 5 years by the methods described in this special permit. The facility that performs requalification of these dry composite pressure vessels (DCPVs) must be a valid DOT RIN holder for requalification of this type of composite cylinder as described in § 180.205(b). Requalification must include the following:

(1) External Visual Inspection in accordance with CGA pamphlet C-6.2 and the Noble Gas Systems Inc.'s Standard Operating Procedure (SOP) on file with OHMS. In addition:

(i) All vessels with corroded or damaged end fittings, or bulges or visible dents, must be rejected.

(ii) Any vessel with damage to more than one layer of the braided material shall be taken out of service.

(2) Pneumatic proof pressure testing in accordance with relevant procedure of CGA pamphlet C-1 and the Noble Gas Systems Inc.'s SOP on file with the OHMS.

(3) Requalification Marking: The date (month/year) of requalification must be permanently marked on the cylinder as specified in paragraph § 180.213. The marking of the RIN symbol on the cylinder certifies compliance with all of the terms and conditions of this special permit.

c. OPERATIONAL CONTROLS:

(1) Limited-Service Life: Noble Gas Systems Inc.'s DCPVs manufactured under this special permit are not authorized for use beyond fifteen (15) years from the date of manufacture.

(2) Use After Fire Exposure: Any Noble Gas Systems Inc. DCPV that has been exposed to extreme heat or fire shall not be returned to service.

(3) DCPVs must be transported in protective outer packaging to ensure end fittings are protected from damage. The outer packaging must be secured to prevent tipping or damage while in transport.

(4) The pressure of a filled vessel must not exceed the design filling pressure indicated on the vessel label.

(5) Tank temperature must be limited to under 185 °F during fast filling.

(6) Underwater Applications: Noble Gas Systems Inc.'s DCPVs are not authorized for underwater breathing applications.

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 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 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 packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.
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:
- 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 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, U.S. Department of Transportation, East Building PHH-6, 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 <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: AS