



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

February 22, 2023

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21200
(SECOND REVISION)

EXPIRATION DATE: 2027-01-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: National Aeronautics and Space Administration
Washington, DC
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of non-DOT specification cylinders containing compressed air. 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 the development of this special permit only considered the hazards and risks associated with the 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 §§ 173.301(a)(1) and 173.302(a)(1) in that a non-DOT specification cylinder is not authorized, § 173.301(f)(1) and (2) in that a cylinder must be equipped with one or more pressure relief devices, and § 173.301(h)(3) in that the cylinder valve assembly protection device must meet the performance requirement, except as specified here.
5. BASIS: This special permit is based on the application of the National Aeronautics and Space Administration dated January 20, 2023, and submitted in accordance with § 107.109.

Tracking Number: 2023015415

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Air, compressed	2.2	UN1002	N/A
Nitrogen, compressed	2.2	UN1066	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Packaging prescribed is a non-DOT specification Fiber Reinforced Plastic Hoop-Wrapped aluminum lined cylinder. The cylinder is manufactured, under Luxfer DOT-SP 12479, and modified for spaceflight with a flow reducer in place of the dip tube as described in the National Aeronautics and Space Administration's (NASA) application on file with the Office of Hazardous Materials Safety.

b. OPERATIONAL CONTROLS:

- (1) Cylinders are authorized for use in NASA missions.
- (2) Only NASA or NASA contractors are authorized shippers (see paragraphs 8.a. and 8.e. below).
- (3) Charged pressure vessels must be shipped in Americase manufactured Super Box Model HM224B shipping containers (rigid outer packaging) to protect from heat of a fire.
- (4) Final operating pressure must not exceed 4,350 psi as permitted under DOT-SP 12479. This must be verified during each charge.
- (5) The temperature of the cylinder during each charge shall not exceed the range of -58 °F to 140 °F per Resupply Air Tanks Fill System Specifications and Procedures.
- (6) Notwithstanding DOT-SP 12479's requirement that the cylinders under that special permit must be used for SCUBA service, the cylinders authorized under this special permit may be used for purposes other than SCUBA service when in conformance with this special permit.

c. MARKING: Each pressure vessel shipped under the terms of this special permit must be plainly and durable marked "DOT-SP 21200".

8. SPECIAL PROVISIONS:

a. Under the terms of this special permit, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier). When under the direction of the National Aeronautics and Space Administration (NASA), contractors may offer hazardous materials under 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 reoffered 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. Transportation must be by contract carriage.

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 Schoonover
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-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 <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: TG