

May 11, 2016



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 15509
(SECOND REVISION)

EXPIRATION DATE: 2018-01-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: The Virginia Commercial Space Flight Authority
Norfolk, VA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of a Division 2.2 compressed gas in a non-DOT specification cylinder which is a component of a pressurized flight vehicle. 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 and 173.302a in that a DOT specification cylinder is required, except as provided herein.
5. BASIS: This special permit is based on the application of The Virginia Commercial Space Flight Authority dated April 12, 2016, and a determination that it is necessary to prevent significant economic impact.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Helium, compressed	2.2	UN1046	N/A
Air, compressed	2.2	UN1002	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Oxygen, compressed	2.2	UN1072	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING -

(1) The packaging for Helium is a non-DOT Specification metal-lined, carbon fiber wrapped composite cylinder. The cylinder is designed, tested, and manufactured in accordance with the November 15, 2011 application and January 30, 2012 supplemental information on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). The cylinder has a maximum volume of 4206 cubic inches and a maximum expected operating pressure (MEOP) of 4800 psig.

(2) The packaging for the Nitrogen and Oxygen is a non-DOT Specification cylinder authorized under DOT-SP 15515.

b. OPERATIONAL CONTROLS -

(1) The cylinders shall be transported as a component of the pressurized flight vehicle (PFV). The PFV must be transported inside of the Cygnus Vertical Container (CVC) by military semi-truck described in the November 15, 2011 and April 12, 2016 applications.

May 11, 2016

(2) Transportation of the cylinder is authorized by motor carrier only and is limited to travel from the Wallops Flight Facility to the Wallops Island Launch Facilities in Wallops Island, VA.

(3) Transportation of the CVC shall only occur during non-peak hours; the vehicle must maintain low speed; and the CVC must be accompanied by a police escort. All additional Virginia Department of Transportation (VDOT) requirements must be followed.

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. The CVC must be marked "DOT-SP 15509" on two opposite sides in letters at least 2 inches in height on a contrasting background.

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.

May 11, 2016

- 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.

May 11, 2016

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: Majors:dl