

July 25, 2019



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
(SIXTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of Division 2.1 and 2.2 compressed gas in non-DOT specification cylinders, which are integrated into 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. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.56(a) in that a new explosive must be approved and §§ 173.301, 173.302(a) and 173.304(a) in that a DOT specification cylinder is required, except as provided herein.

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5. BASIS: This special permit is based on the application of Orbital Sciences Corporation dated July 22, 2019, submitted in accordance with § 107.117 and the determination that it is necessary to prevent significant economic loss.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Liquefied or non-liquefied compressed gases, which are authorized for transportation under DOT-SP 15515, DOT-SP 7277, DOT-SP 8131, DOT-SP 8178, DOT-SP 10776, DOT-SP 10945, DOT-SP 11725, DOT-SP 12396, DOT-SP 12429, DOT-SP 15483, DOT-SP 15531, DOT-SP 15971, DOT-SP 16175, and DOT-SP 16535	2.1 or 2.2 as applicable	As appropriate	N/A
Cutters, cable, explosive*	1.4S	UN0070	N/A

*As authorized under DOT-SP 16175

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

(1) A non-DOT Specification metal-lined, carbon fiber wrapped composite cylinder intended to contain helium. 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 4,206 cubic inches and a maximum expected operating pressure (MEOP) of 4,800 psig.

(2) Non-DOT specification cylinders authorized under the following special permits are authorized to be incorporated into the pressurized flight vehicle (PFV):

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DOT-SP 7277, DOT-SP 8131, DOT-SP 8178, DOT-SP 10776, DOT-SP 10945, DOT-SP 11725, DOT-SP 12396, DOT-SP 12429, DOT-SP 15483, DOT-SP 15515, DOT-SP 15531, DOT-SP 15971, DOT-SP 16175, and DOT-SP 16535. These cylinders may only contain the materials authorized in their respective special permit that are classed as Division 2.1 or 2.2.

(3) Cutters, cable, explosive, UN0070, must be incorporated into the i-Ball Capsule as described in DOT-SP 16175. The cutters are excepted from the requirement for explosive approval.

b. OPERATIONAL CONTROLS:

(1) The cylinders shall be transported as a component of the 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.

(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. 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.

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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

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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-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: Andrew Eckenrode