



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**September 05, 2025**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 21213  
(THIRD REVISION)

**EXPIRATION DATE: 2029-08-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Space Exploration Technologies Corp. (SpaceX)  
Hawthorne, CA
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of lithium ion batteries contained in equipment (satellites) and argon, compressed in non-DOT specification cylinders. 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 § 172.300 in that marking is not required; § 172.400 in that labeling is not required; § 173.301(f) in that pressure relief devices are not installed; § 173.302(a) in that non-DOT specification cylinders are authorized as specified herein; and § 177.840 in that the requirements for shipment of cylinders do not apply.
5. BASIS: This special permit is based on the application of Space Exploration Technologies Corp. (SpaceX) dated April 17, 2025 and additional information on June 14, 2025, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Argon, compressed*	2.2	UN1006	N/A
Lithium ion batteries contained in equipment**	9	UN3481	N/A

\*This entry is provided for clarity though the gas pressure within the cylinder does not meet the definition of “compressed”.

\*\*Only low production lithium ion batteries contained in equipment (satellite) (“Low production” is defined as a production run of no more than 100 cells or batteries annually of a particular type) may be offered for transportation and transported under the terms of this special permit.

7. SAFETY CONTROL MEASURES:a. PACKAGING:

## (1) Inner Packaging:

(i) Each battery must be contained in equipment (satellite) which is built with a strong, impact resistant casing, and the battery must be securely mounted to prevent movement within the equipment.

(ii) Each cylinder holding argon and secured within the equipment is non-DOT specification seamless aluminum cylinder meeting the requirements of special permit DOT-SP 12440. Additionally, the cylinders must be analyzed and tested to meet the requirements of Volume 3, Chapter 12 of the U.S. Air Force Space Command Manual (AFSPCMAN) 91-710, as described in the application on file with the Office of Hazardous Materials Safety (OHMS). The cylinders are a component of Space Exploration Technologies Corp.’s manufactured satellites and integrated into the satellites. There is one cylinder within a satellite.

(2) Outer Packaging: Satellites must be further packaged inside metallic, humidity-controlled containers.

(3) The net weights and energy contents of the batteries within each package as described in the SpaceX’s April 17, 2025 application on file with OHMS.

b. TESTING:

- (1) Cells must be of a type that has been successfully tested in accordance with the UN Manual of Tests and Criteria, Eighth Revised Edition.
- (2) The two types (V2 and V2 optimized) of the lithium batteries contained in equipment need not be of a type that has been successfully tested in accordance with the UN Manual of Tests and Criteria.

c. MARKING:

- (1) The outer container containing the satellite(s) must be marked on two sides, in letters at least 2 inches high on a contrasting background, "DOT-SP 21213".
- (2) The marking and labeling requirements of Part 172, Subparts D and E, respectively, do not apply.

d. PLACARDING: In lieu of labeling required by Part 172 Subpart E, each container must be placarded using the NON-FLAMMABLE GAS placard.

e. OPERATIONAL CONTROLS:

- (1) Transportation is authorized for SpaceX communication satellites for the following planned over-the-road movements:
  - (i) From Redmond, WA, to Cape Canaveral Space Force Station and Kennedy Space Center, FL.
  - (ii) From Redmond, WA, to Vandenberg Air Force Base, CA
  - (iii) From Redmond, WA, to NASA Plum Brook Station, Sandusky, OH.
  - (iv) From NASA Plum Brook Station, Sandusky, OH to Seattle, WA.
  - (v) From Hawthorne, CA, to Cape Canaveral Space Force Station and Kennedy Space Center, FL.
  - (vi) From Hawthorne, CA, to Vandenberg Air Force Base, CA.
  - (vii) Additional locations where the satellites may be transported to and from are 1 Rocket Rd., Brownsville, TX 78521, 7323 Aviation Blvd., Baltimore, MD 21240, and 21830 Atlantic Blvd., Sterling, VA 20166.

- (2) The equipment (satellites) must be shipped secured in the transport containers.
- (3) Only one battery type is contained per satellite.
- (4) Transportation of the equipment is limited to direct movement from point of origin to destination.
- (5) The cells and battery contained in equipment must be protected against short-circuiting.
- (6) The battery contained in equipment must be equipped with an effective means of preventing dangerous reverse current flow when it contains cells that are connected in parallel.

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).
- 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.

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.

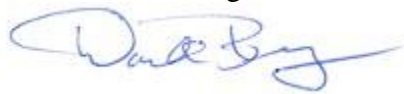
Each “Hazmat employee”, as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

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 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: SH/TG