

June 27, 2018



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-SP20629

EXPIRATION DATE: 2020-02-29

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Spaceflight, Inc.
Seattle, WA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of low production lithium ion batteries contained in equipment in alternative packaging. 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 § 173.185(e)(3) in that alternative packaging is authorized.
5. BASIS: This special permit is based on the application of Spaceflight, Inc. dated March 20, 2018 and supplemental information dated May 7, 2018 submitted in accordance with § 107.105 and the public proceeding thereon.

Tracking Number: 2018039597

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6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries contained in equipment <i>including lithium ion polymer batteries</i>	9	UN3481	N/A

7. SAFETY CONTROL MEASURES:a. OPERATIONAL CONTROLS:

(1) This special permit is valid only for transportation of lithium ion batteries contained in equipment (spacecraft) which will be shipped in specially designed shipping containers identified as LoFF (Container 1), CEC (Container 2), and Hub (Container 3).

(2) Container 1, Container 2, and Container 3 may contain not more than thirty-eight (38), twenty-three (23), and thirty-two (32) batteries each contained in equipment (spacecraft), respectively.

(3) The total numbers of spacecraft in Container 1, Container 2, and Container 3 must be thirty-nine (39), twenty-five (25), and thirty-two (32), respectively.

(4) The number of cells in each battery in each of the Containers is as described in the supplemental information dated May 7, 2018 and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD).

(5) Cells and batteries must be protected against short-circuiting.

(6) Batteries connected in parallel must be equipped with an effective means to prevent dangerous reverse current flow.

(7) This Special Permit authorizes one shipment of three (3) specially-designed containers containing

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batteries contained in equipment (spacecraft) by motor vehicle from Auburn, Washington to Vandenberg Air Force Base.

b. TESTING REQUIREMENTS:

(1) Each cell in the batteries must be a type that has passed the required tests in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition.

(2) Sixteen (16) batteries contained in equipment in Container 1, nine (9) batteries contained in equipment Container 2, and all the batteries contained in equipment Container 3, must have passed the required tests in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition.

c. PACKAGING:

(1) Inner Packaging: Each battery contained in equipment (spacecraft) must be completely enclosed in an electrostatic precipitative bag separating the battery in equipment from each other.

(2) Outer Packaging: The inner packagings must be placed in wooden containers specially designed to meet ASTM-D0256 with dimensions as provided in the March 20, 2018 application and supplemental information dated May 7, 2018 and on file with OHMSAPD, and with the number of batteries contained in equipment and spacecraft as identified in 7.a.(1), (2), and (3) above.

(3) Container 1 and Container 2 must be on the same flatbed truck.

(4) Container 3 must be carried on a single truck.

(5) All batteries contained in equipment must be secured to prevent movement and unintentional activation during transportation.

(6) The net weight of batteries in each Container may not exceed the following:

(i) Container 1: 5 kg.

(ii) Container 2: 13 kg.

(iii) Container 3: 30 kg.

8. MARKING REQUIREMENTS: Each package (Container) prepared under the provisions of this approval must be plainly marked with the approval number "DOT-SP 20629".
9. 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 or its contents 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.
10. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
11. 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. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.
12. 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.

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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.

13. 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-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: Steve H/Kenny Herzog