

September 12, 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-SP 20655

EXPIRATION DATE: 2020-04-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Space Dynamics Laboratory.
North Logan, UT
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries contained in equipment that are not of a type proven to meet the requirements of the UN Manual of Tests and Criteria. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) 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.
 - d. This special permit serves as an approval under Special Provision A88 of the International Civil Aviation Organizations Technical Instructions (ICAO TI) and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(e)(6) and ICAO TI Provision A88 in that low production and prototype batteries that have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria and are packaged as specified herein require an approval.
5. BASIS: This special permit is based on the application of Space Dynamics Laboratory dated March 15, 2018 and supplemental information dated July 31, 2018, submitted in accordance with § 107.105, the public proceeding thereon.
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	9	UN3481	N/A

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS -

(1) Only prototype and low production lithium ion batteries contained in equipment (spacecraft) may be offered for transportation under the terms of this special permit. ("Low production" is defined as a production run of no more than 100 batteries annually of a particular type.) Each different battery type must comply with all the conditions of this special permit prior to being offered for transportation.

(2) A battery contained in equipment (with a nominal voltage rating of 12 V) is comprised of three (3) cells each with a maximum energy capacity of 173 Wh.

(3) Cells and batteries contained in equipment must be protected against short circuiting.

(4) The battery contained in equipment must be equipped with an effective means of preventing dangerous reverse current flow when cells are connected in parallel.

b. TESTING -

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

(2) The battery must be of a type that has passed the tests as described in Space Dynamic Laboratory's application dated March 15, 2018 and supplemental information dated July 31, 2018 and on file with Office of Hazardous Materials Approvals and Permits Division.

c. PACKAGING REQUIREMENTS -

(1) Inner Packaging - The battery contained in equipment must be packed in an inner packaging (aluminum box) that completely encloses the battery contained in equipment. And then the aluminum box is enclosed within a plastic electrostatic dissipative bag.

(2) Outer packaging - The inner packaging must be further packaged in a Pelican case having an interior foam liner.

(3) The outer packaging may contain not more than one battery per package.

(4) The net weight of a battery must not exceed 1.8 kg.

d. MARKING - The package covered under the terms of this special permit must be durably and legibly marked and displayed on a background of contrasting color with "DOT-SP 20655."

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 or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

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- b. 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: Cargo-only aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft 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.
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.

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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-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: SH/TG