

April 03, 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 20840
(FIRST REVISION)

EXPIRATION DATE: 2019-09-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: York Space Systems LLC
Denver, CO
2. PURPOSE AND LIMITATIONS:
 - a. This emergency special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries in a special packaging. 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. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
 - d. This special permit serves as an approval under Special Provision A88 and State Variation US 3 of the 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 and the ICAO TI.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a) in that the batteries must be of the type proven to meet the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria; and § 173.185(b)(3)(iii) in that each lithium battery must be individually packed in a non-metallic inner packaging and then placed in an outer packaging at the Packing Group II level, except as specified herein.
5. BASIS: This special permit is based on the application of York Space Systems LLC dated February 27, 2019 and additional information dated March 5, 2019 submitted in accordance with § 107.117, the determination of significant economic loss, and additional information submitted April 1, 2019.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries packed with equipment	9	UN3481	N/A

7. SAFETY CONTROL MEASURES:
- a. OPERATIONAL CONTROLS:

(1) Only prototype and low production lithium ion batteries 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 cells or batteries annually of a particular type.) Each different cell and battery type must comply with all the conditions of this special permit prior to being offered for transportation.

(2) The battery within the equipment (satellite) is electrically disconnected from the satellite function during transportation and hence is not "contained in equipment."

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(3) The state of charge for prototype and low production lithium ion cells and batteries must be between 5% and 10% when offered for transportation.

(4) The battery (with a nominal energy rating of 432 Wh) is comprised of cells as described in the February 27, 2019 application and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD).

(5) Cells and batteries must be protected against short circuits during transport.

(6) The battery must be equipped with an effective means of preventing dangerous reverse current flow for battery strings connected in parallel.

b. TESTING AND INSPECTION FOR EACH TYPE:

(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 testing including the vibration, thermal vacuum, internal short circuiting and overcharge tests as described in the reports dated June 18, 2018 and October 4, 2018 which are on file with the OHMSAPD.

c. PACKAGING REQUIREMENTS:

(1) The battery must be individually enclosed in a satellite (equipment) casing made of rigid aluminum material which serves as an inner packaging;

(2) The battery terminals must be protected with non-conductive covers to prevent the possibility of external short-circuiting using harness and rubber cushioning;

(3) The battery must be securely fastened to the interior of the equipment to prevent movement;

(4) The equipment is placed in an electrostatic dissipative bag which serves as the intermediate packaging;

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(5) The equipment must be further packaged in a non-combustible, high strength plastic Pelican case (Model AL5240-1138AC/HL) with non-conductive, non-combustible foam material between the intermediate packaging and the Pelican case which serves as an outer packaging;

(6) The outer packaging must stay on container feet at the base designed for lifting by forklift from the bottom;

(7) The net weight of the lithium battery in a single package must not exceed 4.4 kg; and

(8) Only one battery is allowed per package.

d. MARKING REQUIREMENTS: Each package, and overpack if used, prepared under the provisions of this special permit must be plainly marked with the special permit number: "DOT-SP 20840".

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. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

d. For each cell and battery type, the grantee must maintain the following record and upon request and make this record available to DOT representatives or enforcement officials. The record to be maintained is as follows:

(1) A description of each cell and battery type and types of tests conducted and test results prior to offering for transportation.

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(2) Dates and description of each shipment, to include number of cells and batteries.

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 Materials 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