

August 11, 2020



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 20940
(FIRST REVISION)

EXPIRATION DATE: 2021-10-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Orbital Sciences LLC
Dulles, VA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of low production lithium ion batteries exceeding 35 kg by cargo aircraft. 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 A99 of the ICAO TI and Packing Instruction 910 of the ICAO TI Supplement 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.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Column (9B) in that the lithium batteries may exceed 35 kg; and 173.185(a) in that the lithium batteries are not of a type

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proven to have met the criterial in the UN Manual of Tests and Criteria.

5. BASIS: This special permit is based on the application of Orbital Sciences Corporation dated September 04, 2019 submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated August 2, 2020.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identi- fication Number	Packing Group
Lithium ion batteries <i>including lithium ion polymer batteries</i>	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

- a. SAFETY CONTROLS:

(1) Only SAFT battery packs comprised of cells of VES16, VES140SA, VES180SA, VL6P, VL41M or MP176065 series with a maximum number of cells in a battery not exceeding 300, manufactured for use in space craft (satellites) are authorized.

(2) Not more than a total of 100 batteries per year are authorized for manufacture and transport under this special permit.

(3) Each battery must be comprised of only one of the cell types referenced in paragraph 7.a.(1).

(4) The state of charge for batteries may not exceed 30% when offered for transportation.

(5) The net weight of the battery may not exceed 400 kg (882 pounds) and the gross weight of the package/palletized battery may not exceed 910 kg (2,000 pounds).

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(6) Maximum energy of a battery may not exceed 64,800 Wh.

b. PACKAGING: Authorized batteries must be packaged as follows:

(1) Each battery must have a strong, impact-resistant outer casing;

(2) Each battery must be individually packaged in a non-metallic inner packaging, inside an outer packaging, and is surrounded by cushioning material that is non-combustible and non-conductive;

(3) The outer packaging may be a strong outer packaging, in protective enclosures (e.g., in fully enclosed wooden crates), or on pallets;

(4) Batteries must be secured to prevent inadvertent movement;

(5) The terminals must be protected to prevent short circuits, and the battery so packaged that terminals could not be directly subjected to the weight of materials that may be superimposed during transportation; and

(6) Not more than one battery may be packaged within each packaging.

c. TESTING:

(1) Cells must be of a type that has been successfully tested in accordance with the UN Manual of Tests and Criteria, Fifth Revised Edition.

(2) Every battery design must undergo "qualification," and "acceptance" testing as described in the SAFT's application dated March 22, 2016 submitted to get approval for CA2016030020.

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 20940.

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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.

(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.

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- 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.

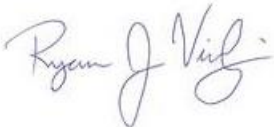
Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

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 Schoonover
Associate Administrator for Hazardous Materials Safety

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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: ae