



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**July 02, 2024**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 21793

**EXPIRATION DATE: 2024-12-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Space BD Inc.  
Tokyo, Japan

U.S. AGENT: ShipMate, Inc.  
Sisters, OR

2. PURPOSE AND LIMITATIONS:

a. This emergency special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries contained in equipment (spacecraft). 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. 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.

d. 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(a)(1) in that lithium batteries have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria.

5. BASIS: This emergency special permit is based on the application of Space BD Inc. dated June 5, 2024, submitted in accordance with § 107.117 and the determination it is necessary to prevent significant economic loss.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material 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. PACKAGING: Prescribed batteries are contained in equipment (spacecraft), which is further packed in satellite transport containers that are non-DOT specification packagings (specially designed satellite transport containers (STCs)) and packaged as follows:

- (1) Each battery must be contained in equipment (spacecraft) designed for space application and constructed of suitable material of adequate strength and design.
- (2) The equipment containing the battery must be placed in a rigid and fully encased, specifically designed non-DOT specification packing (STC or outer transport container) as described in the June 5, 2024, application on file with the Office of Hazardous Materials Safety (OHMS).
- (3) The aggregate net weight of each battery type, which is comprised of no more than six (6) cells (3.6V nominal, 3450 mAh nominal), is 1.0 kg maximum (626 g and 331 g respectively).
- (4) When transported aboard aircraft, batteries and equipment must conform to Packing Instruction 910 of the Supplement to the ICAO TI.

b. TESTING:

- (1) Each cell within the battery must be of a type tested in accordance with the UN Manual of Tests and Criteria, 5<sup>th</sup> Revised Edition.

(2) The battery need not be of a type tested in accordance with the UN Manual of Tests and Criteria.

c. OPERATIONAL CONTROLS:

(1) Only prototype and low production lithium ion batteries contained in equipment as described in the June 5, 2024, application on file with the OHMS may be offered under the terms of this special permit. ("Low production" is defined as a production run of no more than 100 batteries annual of a particular type).

(2) Two (2) satellites (AE1c and AE1d) may each contain one (1) BlueTrek battery, which consists of six (6) Sanyo NCR18650GA cells (6S1P) and has a maximum Watt-hour capacity of 74.52 Wh.

(3) One (1) satellite (FUSION-1) may contain one lithium ion battery containing one (1) Panasonic battery, which consists of four (4) Sanyo NCR18650GA cells (2S2P) and has a maximum Watt-hour capacity of 49.68 Wh.

(4) Each different battery type must comply with all the conditions of this special permit prior to being offered for transportation.

(5) Cells and batteries must be protected against short circuiting, and the batteries must be equipped with an effective means of preventing a dangerous reverse current flow for the batteries that contain cells connected in parallel.

(6) Equipment containing lithium ion batteries must be protected against short circuits and unintentional activation.

d. MARKING: The outer transport container must be plainly and durably marked on two opposite sides in letters at least 2 inches (50 mm) in height on contrasting background, "DOT-SP 21793" and "DO NOT STACK" as specified in § 173.301(c).

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, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging and it is offered for transportation in conformance with this special permit, the HMR, and the ICAO TI.

- c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
  - d. 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 the States of origin, transit, destination of the consignment, and the State of the Operator.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo-only aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft or 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.
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 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-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