



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

September 29, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21996

EXPIRATION DATE: 2027-08-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Arkedge Space Inc.
Tokyo, Japan

U.S. AGENT: Nissin International Transport U.S.A., Inc.
Torrance, CA

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of prototype lithium ion batteries contained in equipment via cargo-only aircraft in alternative 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. No party status will be granted to this special permit.

d. This special permit serves as an approval under Special Provision A88 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.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(e)(3) in that alternative packaging is authorized; and § 173.185(e)(7) in that transportation aboard cargo-only aircraft requires an approval.

Tracking Number: 2025044463

5. BASIS: This special permit is based on the application of Arkedge Space Inc. dated April 11, 2025, submitted in accordance with § 107.105 and 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

*Only prototype lithium ion batteries contained in equipment may be offered for transportation under the terms of this special permit. Each different battery type must comply with all the conditions of this special permit prior to being offered for transportation.

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

- (1) Each battery must meet the § 173.185(c) smaller cells and batteries requirement.
- (2) The battery contained in equipment must be packed in a non-UN performance specification Pelican case 1637 outer packaging.
- (3) The equipment must be secured to prevent inadvertent shifting.
- (4) Packages offered for transportation must be in accordance with the requirements in Packing Instruction 910 of the Supplement to the ICAO TI. Additionally, waste lithium batteries and lithium batteries being shipped for recycling or disposal are forbidden from air transport, and lithium batteries must not be packed in the same outer packaging with substances and articles of Class 1 (explosives) other than Division 1.4S, Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids), or Division 5.1 (oxidizers).
- (5) No more than one battery contained in equipment is allowed per outer package.
- (6) The net weight of the battery may not exceed 0.288 kg (0.6 pounds).

b. OPERATIONAL CONTROLS:

- (1) Only batteries identified as:
 - (i) ArkEdge Space Inc. battery pack composed of 6 cells manufactured by Sanyo Electric Co., Ltd. Panasonic group as outlined in the application dated April 11, 2025, and on file with the Office of Hazardous Materials Safety, may be offered for transportation under the terms of this special permit.
 - (ii) A battery is comprised of 6 cells in a 3S2P configuration.
- (2) Each battery has a nominal energy rating of 0.07128 kWh.
- (3) All lithium ion batteries must be offered for transportation at a state of charge not exceeding 30 percent.
- (4) The batteries must be equipped with an effective means of preventing dangerous reverse current flow for cells that are connected in parallel.
- (5) Cells and batteries must be protected against short circuiting.
- (6) The batteries must be equipped with a battery management system (BMS) verified to prevent overcharge, short-circuiting, and over-discharge.
- (7) Lithium batteries must be packed to prevent accidental activation of the battery.
- (8) Cells or batteries that are leaking or liable to rapidly disassemble, dangerously react, produce a flame or a dangerous evolution of heat or a dangerous emission of toxic, corrosive, or flammable gases, or vapors under normal conditions of transport may not be transported under this special permit.
- (9) Any changes to the battery or cell from the types listed above invalidate this special permit.

c. MARKING: Each package must be marked with the Special Permit number "DOT-SP 21996" in accordance with § 172.301(c).

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, the HMR, and the ICAO TI.

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 the States of origin, transit, over flight, and destination of the consignment, as well as the State of the air operator.

d. The grantee must maintain a record of all activity conducted under the authority granted in this special permit and upon request make this information available to DOT representatives or enforcement officials. The record must contain a listing and number of shipments made to include:

- (1) Dates of shipment; and
- (2) Description of each type of shipment.

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.

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 Quade
Acting 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-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: TG/CB