



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

June 08, 2022

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21350

EXPIRATION DATE: 2024-04-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. **GRANTEE:** The National Reconnaissance Office
Chantilly, VA
2. **PURPOSE AND LIMITATION:**
 - a. This special permit authorizes the transportation in commerce of a low production lithium battery 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. No party status will be granted to this special permit.
 - d. This special permit serves as an "exemption" as defined in 1;3.1.1 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)(1) and 2.9.3 a) of the ICAO TI 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 special permit is based on the application of The National Reconnaissance Office dated March 10, 2022 submitted in accordance with § 107.105 and the public proceeding thereon.

Tracking Number: 2022034493

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 <i>including lithium ion polymer batteries</i>	9	UN3481	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING:

- (1) The equipment (spacecraft) containing the lithium ion battery must be packaged in a plastic Pelican Hardigg model CW4141-0858AC non-specification case and must comply with 49 CFR 173.185(b).
- (2) The Pelican case containing the equipment must be secured within a wooden shipping crate.
- (3) The combined net weight of the battery within each package may not exceed 2.1 kg (4.6 pounds).
- (4) Only one spacecraft may be contained in a package.

b. TESTING:

- (1) Each cell (LG Chem, Ltd. model ICR18650MJ1) must be of a type that has passed the tests in the UN Manual of Tests and Criteria, 5th Revised Edition.
- (2) The lithium battery contained in equipment must have passed testing necessary for outer space requirements including the T-1 (vacuum), T-2 (thermal), T-3 (vibration), and T-4 (shock) tests, which exceed or closely simulate the UN Manual of Tests and Criteria 38.3 testing as described in the application dated March 10, 2022.

c. OPERATIONAL CONTROLS:

- (1) The authorized low production lithium battery under the terms of this special permit is a bus battery design composed of 24 LG Chem, Ltd. model ICR18650MJ1 cells with a nominal total energy rating of 326.4 Wh configured in series and parallel connections.
- (2) Only one spacecraft is authorized for a one-time shipment under the terms of this special permit from Los Angeles, CA to Auckland, New Zealand.
- (3) Cells and the battery 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 for cells and modules that are connected in parallel.

d. MARKING: Each 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 21350".

8. SPECIAL PROVISIONS:

- a. The launch service integration contractor on file with the Office of Hazardous Materials Safety is authorized to prepare the shipment on behalf of The National Reconnaissance Office when under the direction of The National Reconnaissance Office.
- b. 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.
- 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, over flight, and destination of the consignment, as well as the State of the air operator.
- e. The grantee must maintain the following record and upon request make this record available to a DOT representative or an enforcement official. The record to be maintained is as follows:

- (1) Date of the shipment; and
 - (2) Description of the shipment.
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 cargo-only 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.:

A handwritten signature in blue ink, appearing to read "Dan B.", is written over a faint, circular official stamp.

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-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: Steve H