



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

April 21, 2026

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 22199

EXPIRATION DATE: 2028-03-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Li-S Energy Limited
Brisbane, Australia

U.S. AGENT: Paladin Defense Services LLC
Nicholasville, KY

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of low production lithium metal sulfur cells that have not been demonstrated by testing to pass all required tests as specified in the in the “UN Manual of Tests and Criteria”. 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 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.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a)(1) in that low production lithium sulfur cells have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria.

Tracking Number: 2026024100

5. BASIS: This special permit is based on the application of Li-S Energy Limited dated January 23, 2026, 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 metal batteries*	9	UN3090	N/A

*Only lithium metal sulfur cells are authorized.

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

- (1) Inner Packaging: Each cell must be individually packed in an inner plastic bag that completely encloses the cell.
- (2) Outer packaging: The inner packagings must be further packaged in a UN Standard 4H2 outer packaging tested and certified as meeting the Packing Group I performance level. Two inner packagings must be placed side-by-side to form a horizontal row or tier per layer and each layer must be separated by non-combustible vermiculite to provide thermal insulation and cushioning for the cells and to prevent movement during transport.
- (3) Each outer packaging may not contain more than twenty (20) cells.
- (4) Cell terminals must be protected against short circuiting by use of insulative and heat-resistant tape.
- (5) The total net weight of cells in a package must not exceed 1 kg (2.2 pounds).
- (6) The requirements in Packing Instruction 910 of the Supplement to the ICAO TI must be met.

b. TESTING:

(1) Each different cell type must be subjected to the following tests:

(i) For cells of a type that have not been demonstrated by testing to pass all required tests as specified in the “UN Manual of Tests and Criteria, 8th Revised Edition,” three cells must be stored at $55\text{ }^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for at least 48 hours followed by a short circuit test (connecting a conductor across the positive and negative terminals and maintaining this short circuit for at least 1 hour after the case temperature has returned to $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$).

(ii) The cells must have passed the attitude test (T.1), crush test (T.6), and over-discharge test (T.8) in accordance with the “UN Manual of Tests and Criteria, 8th Revised Edition” as described in the January 16, 2026, Li-S Energy Limited’s application on file with the Office of Hazardous Materials Safety.

(2) Cells are considered safe to transport under the terms of this special permit if the cell types show no disassembly or fire after completion of these tests.

c. OPERATIONAL CONTROLS:

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

(2) The lithium content of each cell may not exceed 8.5 grams of lithium metal.

(3) The state of charge for the low production lithium metal cells must be 0% of their rated capacity when offered for air transportation.

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 22199.

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 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 countries of origin, transit, destination, and the State of the Operator.

e. The grantee must maintain the following record and upon request make this record 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-6, 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