



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

June 10, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 22023

EXPIRATION DATE: 2025-11-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Lyra Energy Solutions Inc.
Gardena, CA
2. PURPOSE AND LIMITATIONS:
 - a. This emergency special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries and those contained in battery-powered vehicles aboard cargo-only 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 A88 and Packing Instruction 952 (Additional Packing Requirements – Batteries, paragraph 2) ii) of the ICAO TI and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.
 - e. The regulatory authority under § 171.22(a) authorizes under the terms of this special permit, UN3556, vehicle, lithium ion battery powered to be offered for transportation and transported in accordance with the 2025-2026 Edition of ICAO TI, Packing Instruction 952 (Additional Packing Requirements – Batteries, paragraph 2)ii)).
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

Tracking Number: 2025054648

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.185(e)(7) and 173.220(d) in that prototype and low production lithium ion batteries may be transported aboard cargo-only aircraft, as provided herein.
5. BASIS: This emergency special permit is based on the application of Lyra Energy Solutions Inc. dated May 15, 2025, submitted in accordance with § 107.117 and the determination it is necessary to prevent economic loss.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Battery-powered vehicle*	9	UN3171	N/A
Lithium ion batteries <i>including lithium ion polymer batteries</i>	9	UN3480	N/A
Vehicle, lithium ion battery powered**	9	UN3556	N/A

*This proper shipping name is for domestic transportation of two-wheeled battery-powered vehicles.

**This proper shipping name is for international transportation of two-wheeled battery-powered vehicles.

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Only prototype and low production lithium ion batteries and those contained in vehicles may be offered for transportation under the terms of this special permit. "Low production" is defined as a production run of not more than 100 cells or batteries annually of a particular type. Each different cell and battery type must comply with all the conditions of this special permit prior to being offered for transportation.

(1) Lithium ion batteries:

(i) Inner Packaging: Each battery (UN3480 only) must be individually placed in a non-metallic inner packaging that completely encloses the battery and separates the batteries from contact with conductive materials in the packaging.

(ii) Outer Packaging: Inner packagings containing the batteries must be placed in a metal (4A, 4B, or 4N), plastic (4H), or wooden (4D) UN performance box tested and certified as meeting the Packing Group I performance level and secured from movement within the box.

(2) Battery-powered vehicle (or Vehicle, lithium ion battery powered):

(i) Each battery within the vehicle must have a mass of 12 kg or greater.

(ii) Each battery within the vehicle must be securely fastened in the battery holder. Each vehicle may contain not more than one battery.

(iii) Each vehicle containing the battery must be packaged within a strong wooden crate. Each vehicle must be secured within the wooden crate.

(3) Packaging containing the batteries and the vehicles containing the batteries must comply with the requirements in ICAO TI Packing Instruction 910 or 952, respectively.

(4) The net weight of lithium ion batteries including those contained in battery-powered vehicles (or vehicles, lithium ion battery powered) within each package must not exceed 35 kg.

b. TESTING:

(1) The two cell models described in the Lyra Energy Solutions, Inc.'s May 15, 2025, application on file with the Office of Hazardous Materials Safety (OHMS) must be of a type that have been successfully tested in accordance with Part III, Section 38.3 of the UN Manual of Tests and Criteria, sixth or seventh Revised Edition, as applicable.

(2) The prototype and low production lithium ion batteries have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria.

c. OPERATIONAL CONTROLS:

(1) Each battery including the battery contained in battery-powered vehicle (or vehicle, lithium ion battery powered) must have an impact-resistant, hard plastic cover and aluminum base.

- (2) The maximum rated energy capacity and the number of the cells comprising the battery are as described in the Lyra Energy Solutions, Inc.'s May 15, 2025, application and which on file with the OHMS.
- (3) The state of charge for each lithium ion battery including the battery contained in the battery-powered vehicle (or vehicle, lithium ion battery powered) may not exceed 30% when offered for transportation.
- (4) The batteries must be equipped with an effective means of preventing dangerous reverse current flow for the strings that contain cells connected in parallel.
- (5) Cells and the battery contained in the vehicle must be protected against short-circuiting.

d. MARKING: 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 22023.

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 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. It must be made available to a DOT representative upon request.
- 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, and destination and the State of the Operator.
- e. The grantee must maintain a record of activity for shipments 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.:

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

for William Quade
Acting 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