July 03, 2024

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 20301
(SIXTH REVISION)

EXPIRATION DATE: 2026-02-28

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Tesla, Inc.
Palo Alto, CA

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of production and prototype lithium ion cells and prototype and low production lithium ion batteries 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 A99 (for the production lithium ion cells and batteries) and Special provision A88 and State Variation US 3 of the ICAO TI (for the prototype and low production lithium ion batteries), as an "exemption" as defined in 1;3.1.1 of the ICAO TI (for the prototype lithium ion cells), 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.

Tracking Number: 2024065303

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Hazardous Materials Table Column (9B) in that lithium batteries may have a mass exceeding 35 kg per package; 49 CFR § 173.185(a)(1) in that low production and prototype batteries have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria; 49 CFR § 173.185(a)(1) and 2;9.3. a) of the ICAO TI in that prototype cells have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria; and § 173.185(b)(3)(i) and (ii) in that lithium batteries that weigh 12 kg or more and have a strong, impact-resistant outer casing need not be packaged in combination UN Standard packagings, as provided herein.

5. BASIS: This special permit is based on the modification application of Tesla, Inc. dated February 7, 2024, submitted in accordance with § 107.109 and additional information dated June 21, 2024.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Lithium ion batteries *including lithium ion polymer batteries*	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

a. Only the following may be offered for transportation under the terms of this special permit:

(1) Production and prototype lithium ion cells that are packaged non-wired in modules in a package; and

(2) Prototype and low production lithium ion battery modules and batteries. Low production is defined as annual production of not more than 100 battery modules or batteries of a particular type.

b. A battery module including the module made from the cells added in the Tesla, Inc.'s February 27, 2024, application containing the non-wired cells in a package may not exceed 100 kg or 25 kWh in total capacity of the module.

c. A battery module may not exceed 100 kg or 25 kWh capacity.

d. A battery including the battery assembled from the cells added in the Tesla, Inc.'s February 27, 2024, application may not exceed 500 kg or 100 kWh capacity.

e. The energy rating of the prototype/low production batteries may not exceed the Wh included in the modification application dated September 4, 2020, and on file with the Office of Hazmat Safety (OHMS).

f. The non-wired cells, battery modules and batteries must be offered for transportation at a state of charge not exceeding 30 percent.

g. The cells (wired and non-wired) must incorporate a safety venting device or otherwise be designed in a manner that precludes a violent rupture under conditions normally incident to transportation.

h. Batteries composed of modules must be designed to prevent overcharge, short circuits and over charge between the battery modules.

i. Cells, modules, and batteries must be protected against short circuiting.

j. TESTING:

(1) Production lithium ion cells (wired and non-wired) must be of a type that has passed all required tests as specified in the version of the "UN Manual of Tests and Criteria" applicable during the design type testing.

(2) The new cells added in the Tesla, Inc.'s February 27, 2024, application must be of a type that has passed all required tests as specified in the version of the "UN Manual of Tests and Criteria, 7th Revised Edition."

(3) For prototype cells (wired and non-wired) 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, 6th Revised Edition," three cells must be stored at 55 °C ± 2 °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 °C ± 2 °C).

(4) Prototype cells are considered safe to transport under the terms of this special permit if the cells show no disassembly or fire after completion of these tests. A cell type that has not passed these tests is not authorized to be offered for or transported under the terms of this special permit.

(5) The prototype and low production lithium ion modules and batteries need not be tested in accordance with the most current revision of the "UN Manual of Tests and Criteria."

(6) Each production module or battery must be a type that has passed the required tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

(7) A production battery with a Wh rating of greater than 6,200 Wh must be equipped with a battery management system verified to prevent overcharge, short circuits and over-discharge between the modules and is not required to be tested in accordance with the UN Manual of Tests and Criteria, 6th or 7th Revised Edition.

k. PACKAGING:

(1) Modules containing non-wired production or prototype cells:

(i) Each module must be composed of the number of cells noted in the supplemental information on file with the OHMS.

(ii) Cells in a module must be separated from each other and secured to the module to prevent cell contact and movement.

(iii) The strapped enclosure must be placed in a plastic liner that completely encloses the module. This serves an inner package.

(iv) The inner package must be further packaged in a 4D outer packaging that meets Packing Group I performance criteria. No more than one battery module may be packaged within one package.

(v) PE foam pad must be placed between the inner package and outer packaging to restrict the movement during shipping.

(2) Modules and Batteries (Production and Prototype):

(i) The modules and batteries must be individually packaged in a fully enclosed inner packaging and surrounded by cushioning material that is non-combustible, and non-conductive.

(ii) Modules must be further packaged in a 4D outer packaging that meets Packing Group I performance criteria. Not more than one module may be packaged within one package.

(iii) Batteries that weigh 12 kg or more and have a strong, impact-resistant outer casing may be packaged in strong outer packagings. Not more than one battery may be packaged within one package. The battery must be secured to prevent inadvertent movement and the terminals may not support the weight of other superimposed elements.

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 State of operator.

e. 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.:

Tony Gill

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: Jephthah Nti