

January 07, 2021



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20637
(SECOND REVISION)

EXPIRATION DATE: 2023-12-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: LG Energy Solution, Ltd.
Seoul, Korea

US AGENT: LG Energy Solution Michigan, Inc.
Troy, MI

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of certain lithium ion batteries each with a net weight greater than 35 kg 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 the ICAO TI Special Provision A99 and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.

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3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180 and the ICAO TI.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Hazardous Materials Table Column (9B) in that a lithium ion battery may not exceed 35 kg when transported aboard cargo aircraft, except as provided herein.
5. BASIS: This special permit is based on the application of LG Chem, dated April 9, 2018, submitted in accordance with § 107.105 and the public proceeding thereon and additional information submitted by LG Energy Solution, Ltd. dated December 11, 2020.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

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

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

(1) This special permit is valid only for transportation of the lithium ion battery modules identified as EM048218P5B1 (11.172 kWh), consisting of JH4 cells, and EM048189P3BA (9.786 kWh), consisting of JH3 cells connected in arrangements as described in the application dated July 26, 2018 and on file with the Office of Hazardous Materials Safety Approvals and Permits Division.

(2) Cells and battery modules must be protected against short-circuiting.

(3) Battery modules connected in parallel must be equipped with an effective means to prevent dangerous reverse current flow.

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(4) All battery modules must be offered for transportation at a state of charge not greater than 30%.

(5) All battery modules must be equipped with a battery management system that has been verified as preventing overcharge, short circuits and over-discharge between the modules.

b. TESTING REQUIREMENTS: Each cell identified as JH3 and JH4 and each battery module composed of these cells must be of a type that has passed the required tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

c. PACKAGING:

(1) Inner Packaging: Each battery module must be enclosed in a vinyl sheet. The enclosed module must be surrounded with EPS foam on six sides and placed in a carboard box (which is not a UN box). The carboard box must be surrounded again with EPS foam on six sides.

(2) Outer Packaging: The inner packaging containing a battery module must be placed in a 4G/Y fiberboard box meeting the Packing Group II performance level.

(3) Not more than two (2) outer packagings may be placed on a wooden pallet each separated by non-conductive material and tightly secured on the pallet to prevent movement incidental to transportation.

(4) The packaging must comply with the requirements in ICAO TI Packing Instruction 965.

(5) The net weight of the battery module within each outer package must not exceed the following:

(i) EM048218P5B1 - 67.5 kg.

(ii) EM048189P3BA - 68.1 kg.

(6) The net weight of the battery modules on each pallet and its gross weight may be not more than the following:

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(i) EM048218P5B1:

(A) Net weight: 135 kg.

(B) Gross weight: 166.8 kg.

(ii) EM048189P3BA:

(A) Net weight: 136.2 kg.

(B) Gross weight: 168 kg.

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 20637".

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 and destination.

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.

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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

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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 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-30, 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 http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: ae