



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

September 01, 2021

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21247

EXPIRATION DATE: 2023-05-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Volkswagen AG
Wolfsburg, Germany

US AGENT: Gruber International Group LLC
Tampa, FL
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain lithium ion batteries exceeding 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 Special Provision A99 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 § 172.101 Hazardous Materials Table Column (9B) in that lithium batteries may have a mass exceeding 35 kg per package and § 173.185(b)(6) in that transportation aboard cargo aircraft is authorized, as specified herein.

5. BASIS: This special permit is based on the application of Volkswagen AG dated May 17, 2021 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 ion batteries <i>including lithium ion polymer batteries</i>	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

- (1) Only production lithium ion battery assemblies, as described in Volkswagen AG's application dated May 17, 2021 and on file with the Office of Hazardous Materials Safety may be offered for transportation under the terms of this special permit. Each different type of battery assembly must comply with all the conditions of this special permit prior to being offered for transportation.
- (2) The authorized battery assembly is identified as Part No. 4KE.915.100 is comprised of thirty-six (36) modules in a 108S4P configuration and has a nominal energy rating of 95 kWh (see paragraph 7.a.(3) below for the module).
- (3) Each battery module identified as Part No. KE.915.591.D/4KE.915.591.E is comprised of twelve (12) LG E61V cells.
- (4) All battery assemblies must be offered for transportation at a state of charge not exceeding 30 percent.
- (5) The battery assemblies must be equipped with an effective means of preventing dangerous reverse current flow for cells or modules that are connected in parallel.
- (6) Cells, modules, and battery assemblies must be protected against short circuiting.
- (7) Each battery assembly must be equipped with a battery management system verified to prevent overcharge, short-circuiting, and over discharge.

b. TESTING REQUIREMENTS:

- (1) Each cell within the battery must be of a type tested in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.
- (2) Each battery module must be of a type tested in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

c. PACKAGING:

- (1) Each battery assembly must have a mass of 12 kg or greater and a strong, impact-resistant outer casing.
- (2) The battery assembly must be packed in a 50D wooden Large Packaging that meets the Packing Group II performance criteria.
- (3) The box containing the battery assembly must be closed with ratchet straps and secured to a wooden pallet.
- (4) The net weight of a package (battery assembly with battery management system and casing) may not exceed 800 kg (1,764 pounds).
- (5) Only one battery assembly may be packed within a packaging.
- (6) Packaging must comply with the requirements in Packing Instruction 974 of the Supplement to the ICAO TI. Additionally, waste lithium battery assemblies and lithium battery assemblies being shipped for recycling or disposal are forbidden from air transport, and lithium ion battery assemblies must not be packed in the same outer packaging with substances and articles of Class 1 (explosives) other than Division 1.4S, Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids), or Division 5.1 (oxidizers).

d. MARKING: Each package must be marked with the special permit number DOT-SP 21247 accordance with § 172.301(c).

8. SPECIAL PROVISIONS:

- a. 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 and the HMR.
- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be maintained at the operational locations where this special permit is intended to be used. The grantee must furnish a copy of this special permit to the air carrier before, or at the time the shipment is tendered. Prior to the acceptance and transport of materials authorized herein, the air carrier must ensure that their assigned State of the Operator has acknowledged in writing, that the air carrier has the appropriate procedures in place that mitigate the additional risk posed by the carriage of authorized hazardous materials aboard aircraft.
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 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/Kenny Herzog