

September 28, 2017



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 20452
(FIRST REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (see individual authorization letter)
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain lithium ion batteries exceeding 35 kg net weight by 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. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
 - d. This special permit serves as an approval under 49 CFR 173.185(b)(5), Special Provision A99 of the ICAO TI, Section IA.2, paragraph 3 of Packing Instruction 965 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, except as specified herein.

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5. BASIS: This special permit is based on the application of XALT Energy MI, LLC dated April 5, 2017 submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated August 17, 2017.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries*	9	UN3480	N/A

*Only batteries identified as the XPAND Modular Pack (XMP Gen I or Gen II) comprised of cells identified as XALT 40 HP (as identified in the XALT Energy test report revised January 4, 2017) may be offered for transportation under the terms of this special permit.

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS -

(1) Each battery has an energy rating of 7.1 kWh for XMP Gen I and 13 kWh for XMP Gen II.

(2) The state of charge for lithium ion batteries must not exceed 30% when offered for transportation aboard cargo aircraft.

(3) Cells and batteries must be protected against short-circuiting.

(4) The battery must be equipped with an effective means of preventing dangerous reverse current flow.

b. TESTING REQUIREMENTS -

(1) Each cell within the battery must be of a type that has been demonstrated by testing to pass the tests specified in the UN Manual of Tests and Criteria, 5th Revised Edition or any subsequent revision and amendment applicable at the date of the type testing.

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Any subsequent revision and amendment to the UN Manual of Tests and Criteria may not be used unless incorporated by reference (see § 171.7).

(2) Each battery must be of a type that has been demonstrated by testing to pass the tests specified in the UN Manual of Tests and Criteria, 5th Revised Edition or any subsequent revision and amendment applicable at the date of the type testing. Any subsequent revision and amendment to the UN Manual of Tests and Criteria may not be used unless incorporated by reference (see § 171.7).

c. PACKAGING REQUIREMENTS -

(1) Batteries have a strong, impact-resistant outer casing and must be packaged in non-UN performance-oriented packaging that meets the requirements in § 173.185(b)(5) and Packing Instruction 965, Section IA of the ICAO TI. The battery must be secured to prevent inadvertent movement and the terminals may not support the weight of other superimposed elements.

(2) No more than one battery may be packaged within one outer packaging.

(3) Packages offered for transportation must meet the requirements in accordance with § 173.185(b) and Packing Instruction 965 of the ICAO TI.

(4) The net weight of the battery within a package may not exceed 100 kg.

d. MARKING - Each package must be marked with the special permit number DOT-SP 20452 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, the HMR and the ICAO TI.

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

c. 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.

d. The grantee must maintain the following record and upon request and make this information 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.

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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-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

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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: Steve H/NICKS