

July 18, 2018



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 20419
(THIRD REVISION)

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: (See individual authorization letter)

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the transportation in commerce of "Vehicle, flammable liquid powered" with lithium ion batteries installed, or individual spare "lithium ion batteries" as described herein. This special permit provides no relief from the Hazardous Materials Regulations (HMR), the International Maritime Dangerous Goods (IMDG) Code, 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with 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 "exemption" under 1;1.1.3 of the International Civil Aviation Organization's (ICAO) Technical Instructions (TI) and Chapter 7.9, Section 7.9.1 of the International Maritime Dangerous Goods (IMDG) Code (see IMO MSC/Circ. 1075-Granting Exemptions from the Provisions of the IMDG Code) 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, the ICAO TI and IMDG Code.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.185(a), IMDG Code Section 3.3.1, Special Provision 962, and ICAO TI Packing Instruction 950 Paragraph 2) in that the battery must be of the type proven to meet the criteria in the UN Manual of Tests and Criteria, except as provided herein.
5. BASIS: This special permit is based on the application of Insitu, Inc. dated May 8, 2018, submitted in accordance with § 107.117 and a determination that it is necessary for immediate national security purposes.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material 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
Vehicle, flammable liquid powered	9	UN3166	N/A

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

(1) The approved batteries are Insitu Part Numbers 530-0000243-000, 530-000314-000, 530-000303-000 and 530-000303-001 comprised of the number of cells and having an energy rating as described in the March 7, 2017 application and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD).

(2) For "Vehicles, flammable liquid powered" (referred to as Vehicles):

- (i) Each vehicle contains not more than one battery;

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(ii) The vehicle engine must be drained of liquid fuel as far as practicable when offered for transportation aboard cargo aircraft and cargo vessel.

(iii) The battery must be installed in and securely fastened to the vehicle;

(iv) The battery installed must be protected to prevent damage, short circuits, and accidental activation during transport; and

(v) The vehicle must be packed and secured against movement to prevent accidental operation during transportation.

(3) Spare Batteries:

(i) Spare batteries may be shipped separately from the vehicles.

(ii) Batteries must be fitted with an effective means to protect against external short circuits.

(iii) The state of charge for the batteries must be not more than 30% when offered for transportation aboard cargo aircraft.

b. TESTING:

(1) All cells must be of a type that have successfully passed the testing requirements in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition.

(2) All batteries must be of a type that have successfully passed the testing requirements in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition except for the T.5 test as described in paragraph 7.b.(3).

(3) The plastic outer battery case may be ruptured attributable to a design of a very small tolerance during the T.5 test and due to cell swelling without exceeding the external battery temperature of 170 °C.

c. PACKAGING: Authorized batteries contained in equipment and spare batteries must be prepared for transportation as

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follows: Authorized vehicles and spare batteries must be prepared for transportation as follows:

(1) Vehicles with batteries installed:

(i) Each vehicle must be packed in strong outer packagings constructed of suitable material of adequate strength as described in the drawings included in the March 7, 2017 application and on file with OHMSAPD;

(ii) Each package must meet additional requirements in ICAO TI Packing Instruction 950 or IMDG Code Special Provision 962, as appropriate; and

(iii) For cargo aircraft transportation, the net weight of a battery within a package may not exceed 35 kg.

(2) Spare Batteries Shipped Separately:

(i) Inner Packaging: The batteries must be placed in non-metallic inner packagings that completely enclose the batteries;

(ii) Outer Packaging: Each inner packaging must be packed inside an outer packaging with cushioning foam inserts meeting the Packing Group II performance criteria as shown in the drawings described on March 7, 2017 and July 11, 2018 email and on file with OHMSAPD;

(iii) Each package may contain not more than two batteries;

(iv) Batteries must be secured to prevent inadvertent movement;

(v) The terminals must be protected to prevent short circuits, and the battery must be so packaged that terminals could not be directly subjected to the weight of materials that may be superimposed during transportation;

(vi) Each package must meet additional requirements in Section 1A of ICAO TI Packing Instructions 965; and

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(vii) The net weight of a battery in a package may not exceed 35 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 20419".

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, the ICAO TI and the IMDG Code.

b. A current copy of this special permit must be maintained and made available for examination at each facility where the materials are package and 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 special permit holder must maintain a record of the following and upon request make this record available to DOT representatives or enforcement officials. The record must contain a complete listing and number of shipments made to include:

(1) Dates of shipment.

(2) Description of each type of shipment.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel and cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft, or motor vehicle 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", 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

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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.

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: SH/TG