

June 12, 2013



U.S. Department  
of Transportation

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

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 15827

EXPIRATION DATE: May 31, 2016

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Advanced Chemical Transport  
Sunnyvale, CA
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of combination UN 4G fiberboard boxes used for the transportation in commerce of spent, used lithium ion polymer batteries that do not meet the requirements of § 173.185(a). This special permit provides no relief from the Hazardous Materials Regulations (HMR) 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a) in that spent, used lithium ion polymer batteries are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Advanced Chemical Transport dated February 14, 2013, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identi- fication Number</b>	<b>Packing Group</b>
Lithium battery*	9	UN3090	II
Lithium ion batteries* ( <i>including lithium ion polymer batteries</i> )	9	UN3480	II

\*Only spent, used lithium ion polymer batteries conforming to the following may be transported in packagings under the terms of this special permit:

- a. iPad type batteries each with an Equivalent Lithium Content of 1.0 to 1.2 grams and each containing three (3) lithium ion cells.
- b. iPhone type batteries each with an Equivalent Lithium Content of 0.21 grams.
- c. Laptop type batteries each with an Equivalent Lithium Content of 4.8 to 5.0 grams.
- d. Each lithium ion battery may not be rated to more than 100 watt hours.
- e. Each spent, used lithium ion battery must have previously met all requirements of § 173.185(a) prior to being spent or used.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - The spent, used lithium ion polymer batteries identified in Paragraph 6. may be transported by motor vehicle and cargo vessel only provided they meet the following:

(1) Standard size iPad, iPhone, and laptop type batteries:

(i) A spent, used lithium ion polymer battery

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(which may not exceed 0.4 pounds [182 grams]) must be placed in two 6 mil Ziplock plastic bags surrounded with sodium bicarbonate sufficient to absorb any leaked electrolyte surrounding the battery;

(ii) The two Ziplock plastic bags containing the spent, used lithium ion polymer battery surrounded by sodium bicarbonate must be immobilized and placed in a 1-gallon metal can tested and certified to the Packing Group I performance level. Non-combustible and non-conductive cushioning must fill the void spaces within the metal can. The metal can must be securely sealed with a plastic locking ring;

(iii) The metal can containing the spent, used lithium ion polymer battery must be placed in a UN 4G fiberboard box tested and certified to the Packing Group I performance level;

(iv) A fiberboard insert must be used to prevent movement of the metal can containing the spent, used lithium ion polymer battery in the UN 4G fiberboard box; and

(v) Only one spent, used lithium ion polymer battery may be packaged within the UN 4G fiberboard box.

(2) Large size (9" by ¾" by 3½" or greater) laptop type batteries:

(i) A spent, used lithium ion polymer battery (which may not exceed 0.4 pounds [182 grams]) must be placed in two 6 mil Ziplock plastic bags immersed in sodium bicarbonate sufficient to absorb any leaked electrolyte surrounding the battery;

(ii) The two Ziplock plastic bags containing the spent, used lithium ion polymer battery surrounded by sodium bicarbonate must be placed in a 5-gallon UN 1A2 steel drum tested and certified to the Packing Group II performance level or a 1-gallon UN 1H2 plastic drum tested and certified to the Packing Group II performance level. Non-combustible and non-conductive cushioning must

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fill the void spaces within the UN 1A2 steel drum and the UN 1H2 plastic drum, as applicable;

(iii) The UN 1A2 steel drum or UN 1H2 plastic drum containing the spent, used lithium ion polymer battery must be placed in a UN 4G fiberboard box tested and certified to the Packing Group I performance level;

(iv) Cushioning must be used to prevent movement of the UN 1A2 steel drum or UN 1H2 plastic drum containing the spent, used lithium ion polymer battery in the UN 4G fiberboard box; and

(v) Only one spent, used lithium ion polymer battery may be packaged within the UN 4G fiberboard box.

b. TESTING - Each spent, used lithium ion polymer battery must be stored at 55°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).

c. OPERATIONAL CONTROLS - The spent, used lithium ion polymer batteries identified in Paragraph 6. must conform to the following:

(1) Cell contacts must not be exposed during transportation;

(2) Spent, used lithium ion polymer battery contacts must not be exposed during transportation; and

(3) Each spent, used lithium ion polymer battery must be observed for any structural, chemical, or electrical changes and staged to vent, diffuse potential vapors, and de-energize the battery for two weeks prior to offering for transportation. A spent, used lithium ion polymer battery that exhibits structural, chemical, or electrical changes may not be offered for transportation under the terms of this special permit.

d. MARKING - Each package shipped under the terms of this special permit must be marked "Spent, Used" on a contrasting background in proximity to the markings and labels required by the HMR.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but 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 offered for transportation in conformance with this special permit and the HMR.

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

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

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

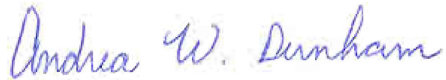
Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation 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 Associate

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Administrator for Hazardous Materials Safety - OHMSPA must be notified in writing, of any incident involving a package, shipment, or operation conducted under the terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
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](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.

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