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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 20584
(SECOND REVISION)

EXPIRATION DATE: 2023-09-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Battery Solutions, LLC
Howell, MI

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, mark, sale, and use of certain packaging for the transportation in commerce of certain damaged, defective or recalled lithium cells and batteries (including those contained in equipment and packed with equipment) without shipping papers, and certain marking and labeling. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Maritime Dangerous Goods (IMDG) Code 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. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing permit. These packagings may be used in accordance with 49 CFR 173.22a.

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- d. This special permit serves as an "exemption" under Chapter 7.9, Section 7.9.1 of the 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180 and the IMDG Code.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Subparts C through H of Part 172 and Chapters 1.3, 5.2, 5.3, and 5.4 of the IMDG Code in that shipping papers, marking, labeling, emergency response information, and training are required for damaged or defective lithium ion cells or batteries, including those packed with or contained in equipment, which meet the size limits in § 173.185(c) or Special Provision 188 of the IMDG Code, as applicable, except as specified herein; § 173.185(f)(1) and Packing Instruction P908 in that inner packaging is required, except as specified herein; and § 173.185(f)(3) and Packing Instruction P908 of the IMDG Code in that more than one lithium cell or battery per package is not authorized, except as specified herein.
5. BASIS: This special permit is based on the applications of Battery Solutions, LLC dated November 2, 2018, submitted in accordance with § 107.105 and the public proceeding thereon and October 2, 2019, submitted in accordance with § 107.109 and additional information dated November 5, 2019.
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
Lithium ion batteries contained in equipment*	9	UN3481	N/A
Lithium ion batteries packed with equipment*	9	UN3481	N/A
Lithium metal batteries*	9	UN3090	N/A

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Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium metal batteries contained in equipment*	9	UN3091	N/A
Lithium metal batteries packed with equipment*	9	UN3091	N/A

*Only damaged, defective or recalled lithium cells and batteries are authorized under the terms of this special permit.

7. SAFETY CONTROL MEASURES:

a. PACKAGING:

(1) INNER PACKAGING:

(i) Each cell or battery including the cell or battery contained in or packed with equipment must be individually packaged in a non-metallic packaging that completely encloses the cell or battery or the piece of equipment unless the batteries are afforded equivalent protection by the equipment. For cells or batteries, including those contained in or packed with equipment, each must be sufficiently and completely surrounded with absorbent, thermally insulating fire suppressant material.

(ii) Inner packaging is not required if the outer packaging is prepared in accordance with paragraph 7.a.(2)(i).

(2) OUTER PACKAGING:

(i) Each outer packaging must be completely filled with absorbent, thermally insulating fire suppressant material described in the Battery Solutions, LLC application dated November 2, 2018 and on file with the Office of Hazmat Safety Approvals and Permits Division. Additionally, the thermally insulating fire suppressant must be in a sufficient quantity to absorb all of the potential

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release of electrolyte with a minimum of 2 inch loose fill surrounding each cell or battery (including those contained in or packed with equipment) as described in the packaging instruction provided in the application; to suppress lithium cell/battery fires, heat and smoke; to absorb the smoke, gases and flammable vapors and electrolytes during a thermal runaway incident; and to protect from the effects of shock and vibration and prevent movement of the cells, batteries, and/or equipment. The outer packaging must be a UN specification packaging meeting the Packing Group I performance level; or

(ii) Each inner packaging must be placed in a UN 1A2, 1H2, 4A, 4B, 4H, or thermally insulated UN 4G packaging that meets the Packing Group I performance level.

(3) The aggregate gross weight of the cells and/or batteries, including cells/batteries contained in equipment, and the thermally insulating fire suppressant within each package transported under this special permit may not exceed 60 kg (132 pounds).

b. OPERATIONAL CONTROLS:

(1) Damaged, defective or recalled lithium cells and batteries (including those contained in equipment and packed with equipment) must have been demonstrated by testing to have passed all required tests as specified in the UN Manual of Tests and Criteria incorporated by reference (see § 171.7) at the date of the type testing prior to becoming damaged, defective or recall.

(2) For transportation by cargo vessel, only lithium cells or batteries including those contained in or packed with equipment with a lithium content not exceeding 1 g for a lithium metal cell or 2 g for a lithium metal battery and with a Watt-hour rating not exceeding 20 Wh for a lithium ion cell or 100 Wh for a lithium ion battery are not subject to 49 CFR Subparts C through H of Part 172 or Chapters 1.3, 5.2, 5.3, and 5.4 of the IMDG Code, except as specified herein. Except when lithium cells or batteries are packed with, or contained in, equipment, each package must not exceed 30 kg (66 pounds) gross weight.

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(3) For transportation by highway or rail, only lithium cells or batteries including cells or batteries contained in or packed with equipment with the lithium content not exceeding 5 g for a lithium metal cell or 25 g for a lithium metal battery and with Watt-hour rating not exceeding 60 Wh for a lithium ion cell or 300 Wh for a lithium ion battery are not subject to 49 CFR Subparts C through H of Part 172. Except when lithium cells or batteries are packed with, or contained in, equipment, each package must not exceed 30 kg (66 pounds) gross weight.

(4) Cells or batteries, including those packed with or contained in equipment, that do not conform to the requirements in paragraphs 7.b.(2) or 7.b.(3) above are subject to 49 CFR Subparts C through H of Part 172 and Chapters 1.3, 5.2, 5.3, and 5.4 of the IMDG Code (i.e., shipping papers, marking, labeling, placarding, emergency response information and training), as applicable.

(5) Each cell and battery must be secured and protected against short-circuiting.

(6) Equipment containing lithium cells or batteries must be protected against short circuits and unintentional activation.

(7) Detailed closure, packing and shipping instructions must be provided to individuals preparing shipments under the terms of the special permit. Persons offering packages for transportation must comply with the closure instructions accompanying the packaging.

(8) Cells or batteries liable to rapidly disassemble, dangerously react, produce a flame or a dangerous evolution of heat or a dangerous emission of toxic, corrosive or flammable gases or vapors under normal conditions of transport may not be transported except when meeting the following conditions: The damaged, defective, or recalled cell or battery may be transported if for a period of at least seven (7) days prior to transport, there is no evidence of venting, leakage, heat, smoke, fire, or other adverse reaction.

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c. 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 the following:

(1) "DOT-SP 20584";

(2) As applicable:

(i) The words "FORBIDDEN FOR TRANSPORT BY AIRCRAFT - GROUND AND CARGO VESSEL SHIPMENT ONLY" and the lithium battery handling marking conforming to § 173.185(c)(3)(i) or 5.2.1.10 of the IMDG Code when the package contains lithium metal cells with a lithium content not exceeding 1 g, lithium metal batteries with a lithium content not exceeding 2 g, lithium ion cells with a Watt-hour rating not exceeding 20 Wh or lithium ion batteries with a Watt-hour rating not exceeding 100 Wh. This marking must be at least 6 mm in height on packages having a gross weight of 30 kg or less and at least 12 mm in height on packages having a gross weight exceeding 30 kg;

(ii) The words "FORBIDDEN FOR TRANSPORT BY AIRCRAFT AND VESSEL - GROUND SHIPMENT ONLY" and the lithium battery handling marking conforming to § 173.185(c)(3)(i) when the package contains lithium metal cells with a lithium content not exceeding 5 g, lithium metal batteries with a lithium content not exceeding 25 g, lithium ion cells with a Watt-hour rating not exceeding 60 Wh or lithium ion batteries with a Watt-hour rating not exceeding 300 Wh. This marking must be at least 6 mm in height on packages having a gross weight of 30 kg or less and at least 12 mm in height on packages having a gross weight exceeding 30 kg; or

(iii) Marked and labeled in accordance with the requirements in Subparts D and E of Part 172 and Chapter 5.2 of the IMDG code, as applicable, when the package does not conform to the requirements in paragraphs 7.b.(2) or 7.b.(3) above or to § 173.185(c)(1)(vi);

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(3) Marked with the words "Damaged/defective lithium ion battery" or "Damaged/defective lithium ion battery", as appropriate, in accordance with § 172.304;

(4) A phone number for additional information; and

(5) A specific URL where the most recent revision of the special permit and instructions for complying with the special permit can be viewed or downloaded.

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, the HMR, and the IMDG Code.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation. This requirement does not apply to cells or batteries, including those packed with or contained in equipment, offered or transported by a person not considered a "Hazmat employee" (e.g., a consumer offering for transportation or transporting hazardous materials subject to this special permit from the consumer's private residence).

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 Safety Approvals and Permits Division 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.

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f. 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 the States of origin, transit, and destination of the consignment.

g. When utilized as specified in this special permit, the completed package is not subject to 49 CFR Subparts C through H of Part 172 (i.e., shipping papers, marking labeling, placarding, emergency response information, and training), except as specified herein.

h. Packages are subject to 49 CFR Subparts C through H of Part 172 (i.e., shipping papers, marking, labeling, placarding, emergency response information, and training), as applicable, when not conforming to:

(i) The limitations in paragraphs 7.b.(2) or 7.b.(3) above; or

(ii) § 173.185(c)(1)(vi).

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

10. MODAL REQUIREMENTS:

a. A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit unless the package is marked in accordance with paragraph 7.c.(5).

b. A current copy of this special permit must be carried aboard each cargo vessel.

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.

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- 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 related to packages containing damaged, defective or recalled lithium cells or batteries, including those packed with or contained in equipment, that do not conform to the requirements in paragraphs 7.b.(2) or 7.b.(3) above or to § 173.185(c)(1)(vi) must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit related to packages containing damaged or defective lithium cells or batteries, including those packed with or contained in equipment, that conform to the requirements in § 173.185(c)(1)(vi) and in paragraphs 7.b.(2) or 7.b.(3) must receive adequate instruction on the requirements and conditions of this special permit.

A person not considered a "Hazmat employee" (e.g., a consumer offering for transportation or transporting hazardous materials subject to this special permit from the consumer's private residence) need not receive training on the requirements and conditions of this special permit or the training required by §§ 172.700 through 172.704 but must be provided appropriate instruction to comply with the requirements and conditions of this special permit.

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.

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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 Materials 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: Steve H