

October 30, 2019



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 20432
(FOURTH REVISION)

EXPIRATION DATE: 2023-04-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Procyon-Alpha Squared, Inc.
Cookeville, TN
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, mark, sale, and use of specially designed packagings for the transportation in commerce of damaged, defective, or recalled lithium ion cells, batteries and these cells and batteries contained in or packed with equipment. 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. 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.

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- d. 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.
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, defective or recalled lithium 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; and § 173.185(f) in that alternative packaging and that more than one cell or battery per package is authorized.
5. BASIS: This special permit is based on the application of Procyon-Alpha Squared, Inc. dated July 15, 2019, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material 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

*Only damaged, defective or recalled 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 may be transported under the terms of this special permit.

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7. SAFETY CONTROL MEASURES:

a. PACKAGING:

(1) Authorized packagings are specially designed 4G fiberboard boxes with an inner lining treated with materials having characteristics of retarding fire and absorbing heat that thermally insulates the external environment from the heat or fire in an event of thermal runaway inside the package. As documented by testing (Document No.: PA-2 05_18_17), each different package design that requires UN Performance testing (as defined in § 178.601(c)(4)) must meet the following during a thermal event:

(i) Ensuring no flames exit the package;

(ii) Not allowing a projectile or projectiles to exit the package;

(iii) Maintaining an external surface temperature of less than 200 °C; and

(iv) Demonstrating that flammable gas or smoke exiting the package does not produce a flame or fire when sparked at the minimal interval of every second outside of the package surface where the gas or smoke is exiting.

(2) The requirements in paragraph 7.a.(1) can be demonstrated by testing. A package as prepared for transportation must be used for the testing. Such demonstrations must be recorded on videos and photographed. All parameters such as energy ratings of cells or batteries, the number of cells or batteries, the state of charge, specifics on the package tested and the type and thickness of cushioning material if used must be documented. The documented materials must be readily made available to a DOT representative upon request.

(3) The packagings must meet the Packing Group I performance criteria.

(4) The lining must surround the contents on all interior surfaces of the fiberboard.

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(5) Each package must meet the requirements in § 173.185(f), except that 4G fiberboard boxes are authorized and that more than one cell or battery may be packaged within an outer packaging.

b. TESTING: All cells and batteries must have met all requirements of § 173.185(a) prior to being damaged, defective or recalled.

c. OPERATIONAL CONTROLS:

(1) Each cell and battery must be protected against short-circuits.

(2) Each cell and battery contained in in equipment must be protected from short-circuits.

(3) When conforming to the terms of this special permit, lithium ion cells or batteries, including those packed with or contained in equipment, which:

(i) Do not exceed 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 and Chapters 1.3, 5.2, 5.3 and 5.4 of the IMDG Code, except as specified herein. Each package must not exceed 30 kg (66 pounds) gross weight.

(ii) Do not exceed 60 Wh for a lithium ion cell or 300 Wh for a lithium ion battery may be transported aboard motor vehicle and rail freight and are not subject to 49 CFR Subparts C through H of Part 172, except as specified herein. Each package must not exceed 30 kg (66 pounds) gross weight.

(4) 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.

d. MARKING:

(1) Each packaged must be marked "DOT-SP 20432" in accordance with § 172.304;

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(2) Each package must be marked with the words "Damaged/defective lithium ion battery" in accordance with § 173.185(f)(4);

(3) Each package must be marked in accordance with paragraph 7.d.(3)(i) or (ii):

(i) Marked with 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) when the package contains lithium ion cells or batteries, including those packed with or contained in equipment, described in paragraph 7.c.(3)(i) above.

(ii) Marked with the words "FORBIDDEN FOR TRANSPORT BY AIRCRAFT AND CARGO VESSEL - GROUND SHIPMENT ONLY" and the lithium battery handling marking conforming to § 173.185(c)(3) when the package contains lithium ion cells or batteries, including those packed with or contained in equipment, described in paragraph 7.c.(3)(ii) above.

(4) Additionally, each package may be marked with a QR code, which when scanned provides a direct link to a specific URL where the most recent revision of the special permit can be viewed or downloaded. If the QR code is marked on the packaging, the URL must also be marked on the packaging.

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 the package is offered for transportation in conformance with this special permit, the HMR and the IMDG Code.

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- 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 Approval 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.
- f. For purposes of transportation by cargo vessel, this special permit also constitutes an exemption to the IMDG Code in accordance with Chapter 7.9, Section 7.9.1.
- g. Any package that is damaged is not authorized to be loaded and transported.
- h. 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.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel (see paragraph 10.c. for restrictions).
10. MODAL REQUIREMENTS:
- a. A current copy of this special permit must be carried aboard each cargo vessel.

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b. For packages that are marked in accordance with paragraphs 7.d.(3)(i) or (ii), a current copy of this special permit must be carried aboard each common motor vehicle unless the package is marked in accordance with paragraphs 7.d.(4).

c. For packages that are marked in accordance with paragraph 7.d.(3)(ii) of this special permit, transportation by cargo vessel is only permitted when motor vehicle or rail shipments are not possible.

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 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.

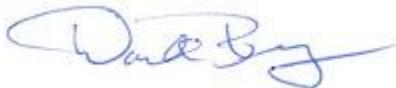
No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

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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 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/NICKS