

April 10, 2020



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 20971
(FIRST REVISION)

EXPIRATION DATE: 2020-09-30

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Pro-dex, Inc.
Irvine, CA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain lithium ion batteries exceeding a thirty percent (30 %) state of charge by cargo-only aircraft under conditions specified herein. 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. No party status will be granted to this special permit.
 - d. This special permit serves as an approval under Section 1A.1 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.

Tracking Number: 2020044407

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §172.102 Special Provision A100 in that lithium ion batteries may exceed a thirty percent state of charge.
5. BASIS: This special permit is based on the application of Pro-Dex, Inc. dated November 08, 2019 submitted in accordance with § 107.117 and the determination that it is necessary to protect life and property and additional information dated April 10, 2020.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials 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

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

- (1) Each single cell battery (referred to as the cell hereafter) identified as APD-BP-001S-X may not exceed a nominal energy rating of 9 Wh.
- (2) The labeled product names for the authorized cells are APD-BP-010S-1 and APD-BP-010S-2.
- (3) The state of charge for the lithium ion cells may exceed more than 30% when offered for transportation under conditions provided herein.
- (4) The cells must be protected against short-circuiting.

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b. TESTING REQUIREMENTS:

(1) Each single cell must be of a type tested in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

(2) Each package as prepared for transportation must have passed the requirements in the ICAO TI SP A331 of Table S-3-4 as demonstrated by tests in the Pro-Dex Inc.'s report dated March 10, 2020 on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD) to meet the following:

(i) no hazardous amount of flame is allowed outside the package;

(ii) the external surface temperature of the package cannot exceed the amount that would ignite adjacent packing material or cause batteries or cells in adjacent packages to go into thermal runaway;

(iii) no hazardous fragments can exit the package, and the package must maintain structural integrity; and

(iv) the quantity of flammable vapors emitted must be less than the amount of gas that when mixed with air and ignited could cause a pressure pulse that could dislodge the overpressure panels of the aircraft cargo compartment or damage the aircraft cargo compartment liners.

c. PACKAGING REQUIREMENTS:

(1) Inner Packaging -

(i) Each single cell must be placed in a non-metallic, non-combustible, and electrically non-conductive tray that is completely enclosed by use of non-metallic and non-combustible foam pads at the bottom and top and a Tyvek top lid in such a way to prevent cell movement and short-circuiting.

(ii) Each tray securely closed with the lid must be placed in a chipboard box.

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(iii) No more than four sealed chipboard boxes may be in a heat-mitigating cell (battery) bag as described in the Pro-Dex Inc.'s report dated March 10,2020 on file with the (OHMSAPD) with the spacing between the centers of each cell not less than six(6) inches. The sealed cell bag serves as an inner packaging.

(2) Outer Packaging - Each bagged inner packaging must be placed in an outer 4G packaging that meets the Packing Group I performance level.

(3) The total net weight of cells contained in a package may not exceed 0.33 kg.

d. MARKING: Each package must be marked with the special permit number, "DOT-SP 20971", in 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 or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

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

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:

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- 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 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.

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/ae