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DANGEROUS GOODS PANEL (DGP) MEETING OF THE WORKING GROUP OF THE WHOLE

Auckland, New Zealand, 4 to 8 May 2009

Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel

5.3: Review of provisions for dangerous goods relating to batteries

- a) **lithium batteries**
- b) **battery-powered devices**
- c) **battery-powered mobility aids**

UNITED STATES POSTAL SERVICE LITHIUM METAL BATTERY AND LITHIUM ION BATTERY REGULATIONS

(Presented by G. Kerchner)

REVISED

1. INTRODUCTION

1.1 The following is a summary of the requirements that were incorporated in to the United States Domestic Mail Manual effective October 5, 2007.

2. GENERAL REQUIREMENTS

2.1 Lithium metal batteries

- 1) Cells must not exceed 1.0 grams per cell. Batteries must not exceed 2.0 grams per battery.
- 2) Cells and batteries must meet the requirements of each applicable test in the UN *Manual of Test and Criteria*, Part III, Subsection 38.3.
- 3) Cells and batteries must be in firmly sealed packages separated and cushioned to prevent short circuit, movement or damage.
- 4) All packages must have both a delivery and return address.
- 5) Cells and batteries are forbidden aboard passenger aircraft.

- 6) The package must be marked on the address side “Surface Mail Only”(1) and “PRIMARY LITHIUM BATTERIES — FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT”(2)
- 7) The package must not exceed 5 pounds.

2.2 **Lithium metal batteries packed with or contained in equipment**

- 1) By surface or air the package must not contain more batteries than are needed to operate the equipment.
- 2) Cells and batteries must be protected against short circuits and damage.
- 3) The equipment must be equipped with an effective means to prevent accidental activation.
- 4) The package must be marked on the address side “Package contains primary lithium batteries”(1)
- 5) The package must not exceed 11 pounds.

2.3 **Lithium ion batteries**

- 1) Cells must not exceed 1.5 grams of ELC per cell. Each battery must not exceed 8.0 grams of ELC per battery.
- 2) Cells and batteries must meet the requirements of each applicable test in the UN Manual of Test and Criteria, Part III, Subsection 38.3.
- 3) Cells and batteries must be in firmly sealed packages separated and cushioned to prevent short circuit, movement or damage.
- 4) Except for batteries installed in equipment, they must be in strong outer packaging.
- 5) All outer packaging must contain a complete delivery and return address.
- 6) Via surface or air transportation, when cells or batteries are mailed or when properly packed with or installed in equipment, they must be protected from short circuit and damage and the device must be equipped with an effective means to prevent accidental activation
- 7) The outside of the package must be marked on the address side “Package Contains Lithium–Ion Batteries (No lithium metal)” (1)
- 8) The mail piece must not contain more than three (3) batteries.

2.4 **Lithium ion batteries packed with or contained in equipment**

- 1) By surface or air the package must not contain more than three batteries.
- 2) Cells and batteries must be protected against short circuits and damage.

- 3) The equipment must be equipped with an effective means to prevent accidental activation.
- 4) No weight limitation.

Damaged or recalled batteries are prohibited from mailing unless approved by the manager, Mailing Standards.

3. **SUMMARY CHART**

Lithium	<u>Surface</u>	<u>Air</u>	<u>Mail Piece Weight Limit</u>	<u>International APO/FPO</u>
Battery	Yes	Prohibited	5 lbs	Prohibited
Packed With	Yes	Yes	11 lbs	Yes
Contained In	Yes	Yes	11 lbs	Yes

Lithium Ion	<u>Surface</u>	<u>Air</u>	<u>Mail Piece Battery Limit</u>	<u>International APO/FPO</u>
Battery	Yes	Yes	3 batteries maximum	Yes
Packed With	Yes	Yes	3 batteries maximum	Yes
Contained In	Yes	Yes	3 batteries maximum	Yes

Note (1): The postal labeling requirements do not specify font, size or color. They must just be easily viable, durable, and of a contrasting color to its background.

Note (2): The “PRIMARY LITHIUM BATTERIES — FORBIDDEN ABOARD PASSENGER AIRCRAFT” must meet the US DOT size requirements of at least 12 mm (0.5 inch) per letter on packages having a gross weight of 30 Kg (66 pounds) or at least 6 mm (0.25 inch) on packages having a gross weight of less than 30 Kg (66 pounds). There is no font or color requirement.

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