DGP-WG/05-IP/8
14/4/05

DANGEROUS GOODS PANEL (DGP)

MEETING OF THE WORKING GROUP OF THE WHOLE

Montreal, 18 to 22 April 2005

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions* for incorporation in the 2007/2008 edition
2.3: Dangerous Goods List and Limited Quantities Exceptions

LITHIUM BATTERY PROTOTYPE APPROVAL LETTER

(Presented by R. Richard)

The attached approval was issued by the competent authority in the United States of America in accordance with special provision A88 to allow prototype batteries to be transported aboard cargo aircraft under specific conditions for the purpose of product development testing. This is provided in light of the fact that a number of States have requested information on the conditions that should be afforded to such approvals and the questions raised in DGP-WG/05-WP/28.

U.S. Department
of Transportation

400 Seventh Street, S.W.
Washington, D.C. 20590

**Research and
Special Programs
Administration**

APPROVAL CA2003030003
ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES
Expiration Date: 06-30-2008

1. **APPROVAL HOLDER**: **Portable Rechargeable Battery Association (PRBA) Members**
1000 Parkwood Circle
Suite 430
Atlanta, GA 30339

2. **REGULATORY AUTHORITY**: 49 CFR § 173.185(i), International Civil Aviation Organization's Technical Instructions for the Safe Transportation of Dangerous Goods by Air (ICAO TI) Special Provision A88 and State Variation US 3.

3. **SYNOPSIS**: Portable Rechargeable Battery Association Members are authorized to offer for transportation prototype lithium cells and batteries in accordance with the conditions of this approval.

4. **BASIS**: This approval is issued in response to the Portable Rechargeable Battery Association's application dated March 6, 2003.

5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL**: This approval does not provide relief from any requirements of the Hazardous Materials Regulations or ICAO TI except as stated herein. This approval is valid until the posted expiration date or until terminated by the Associate Administrator for Hazardous Materials Safety.

a. Approved Materials: Only the following material(s) may be transported under the terms of this approval.

Proper shipping name-Hazardous materials description	Hazard Class / Division	Identi-fication Number	Packing Group
Lithium battery	9	UN 3090	II

b. Safety Controls: Only prototype and low production lithium cells and batteries (i.e. production run of less than 100) may be transported under the provision of this approval.

c. Testing and Inspection:

(1) Cells and batteries must be subjected to the following tests:

(i) Three cells or one 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 maintain this short circuit for at least 1 hour after the case temperature has returned to 55°C); or

(ii) If batteries comprise cells that have passed all required tests as specified in the "UN Manual of Tests and Criteria", the short circuit test may be conducted at room temperature (approximately 23°C).

(2) Cells and batteries are considered safe to transport under the terms of this approval if the cells and batteries show no disassembly or fire.

d. Packaging:

(1) Cells and batteries must be individually packaged in inner packagings and surrounded by cushioning material that is non-combustible, and non-conductive. Cells and batteries must be protected against short circuiting;

(2) Cells and batteries must be packaged in a metal outer packaging that meets Packing Group I performance criteria; and

(3) The cells and batteries per completed package may not exceed the following limitations:

(i) RECHARGEABLE LITHIUM CELLS AND BATTERIES

CELLS

- < 1.5 g: No more than 24 per package
- 1.5 g – 5 g: No more than 12 per package
- > 5 g: No more than 6 per package

BATTERIES

- < 8 g: No more than 12 per package
- 8 g – 25 g: No more than 6 per package
- > 25 g: No more than 3 per package

(ii) FOR PRIMARY LITHIUM CELLS AND BATTERIES

CELLS

- < 1 g: No more than 24 per package
- 1 g – 5 g: No more than 12 per package
- > 5 g: No more than 6 per package

BATTERIES

- < 2 g: No more than 12 per package
- 2 g – 25 g: No more than 6 per package
- > 25 g: No more than 3 per package

(iii) No single package may contain more than 500 g of lithium metal or equivalent lithium content.

d. Marking Requirements: Each package, and overpack if used, prepared under the provisions of this approval must be plainly marked with the approval number "CA2003030003."

6. **MODES OF TRANSPORTATION AUTHORIZED**: Motor vehicle and cargo aircraft.

7. **SPECIAL PROVISIONS**:

a. A current copy of this approval must be maintained and made available for examination at each location where materials are packaged and offered for transportation.

b. Any person who offers for transportation or transports the above-described package(s) may do so under the authority of this approval if all requirements and conditions of this approval are met.

8. **GENERAL PROVISIONS:**

a. Failure by any person to comply with the terms and conditions of this approval, the Hazardous Materials Regulations, 49 CFR Parts 171-180, and International Civil Aviation Organization's Technical Instructions may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

b. Only PRBA members may use this approval to package and ship low production and prototype lithium cells and batteries.

c. PRBA must provide a current list of members by June 30 of each year or upon demand by the Associate Administrator for Hazardous Materials Safety.

d. Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by §§ 172.700 through 172.704.

Issued in Washington, D.C.

Dated: **June 17, 2003**

Approved by:



Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-32.