



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

SEP 11 2006

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

Mr. David Hopkins
Vice President, Government Affairs
Matthews Associates, Incorporated
Battery Assemblers, Incorporated
220 Power Court
Sanford, FL 32771

Ref. No. 06-0159

Dear Mr. Hopkins:

This is in response to your July 10, 2006 letter regarding the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to rescue radios and ancillary devices containing lithium manganese dioxide (LiMnO₂) batteries.

According to your letter, your company manufactures LiMnO₂ batteries for use in rescue radios and other ancillary devices. Each battery is made with twelve CR123 LiMnO₂ cells each containing 0.5 grams of lithium in the anode with a solid cathode. The aggregate quantity of lithium in each battery is 6 grams. The battery is of a type proven to be non-dangerous by testing in accordance with the UN Manual of Tests and Criteria, Fourth revised edition, and the batteries are packed in such a way as to prevent short circuits under conditions normally encountered in transportation.

Generally, primary (non-rechargeable) lithium batteries and cells are forbidden for transport aboard passenger carrying aircraft to, from, or within the United States. However, as provided by § 175.10(a)(27), consumer electronic devices containing lithium cells or batteries and spare lithium cells or batteries for these devices, are permitted when carried by passengers or crew members in checked or carry-on baggage for personal use. Each installed or spare battery must conform to the following: (1) the lithium content of the anode of each cell when fully charged, must not exceed 5 grams; and (2) the aggregate lithium content of the anodes of each battery, when fully charged must not exceed 25 grams.

For other than transportation by passenger aircraft, primary (non-rechargeable) lithium batteries and cells meeting the requirements of § 173.185(b) or (c) are not subject to the HMR. The outside of each package containing excepted primary lithium batteries or cells must be marked "PRIMARY LITHIUM BATTERIES-FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT".

The 2005-2006 Edition of the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical



060159

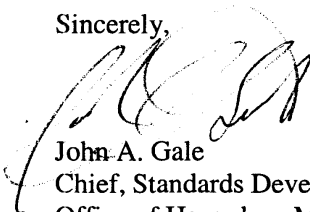
173.185
175.10(a)(27)

Instructions) provide an exception for cells that contain 1 gram or less of lithium or lithium alloy and batteries that contain 2 grams or less of lithium or lithium alloy that are of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3. Since the aggregate quantity of lithium in each battery you describe is 6 grams, your device is regulated as a Class 9 material when transported as cargo onboard passenger and cargo aircraft in accordance with the ICAO Technical Instructions. Under the ICAO Technical Instructions, consumer electronic devices containing primary (non-rechargeable) lithium cells or batteries when carried by passengers or crew for personal use are permitted in checked or carry-on baggage. Spare batteries must be individually protected from short circuits and carried in carry-on baggage only. Additionally, spare primary (non-rechargeable) lithium metal or lithium alloy batteries are limited to not more than 2 grams of lithium content.

You may be interested to know that, in a notice of proposed rulemaking published under Docket HM-224C on April 2, 2002 (67 FR 15510), the Pipeline and Hazardous Materials Safety Administration has proposed to eliminate the 25-gram exception for lithium batteries found under § 173.185(c)(2) of the HMR. Please refer to our website at <http://hazmat.dot.gov> under the Rules and Regulations icon, in the rulemaking and Federal Register Notices section.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,



John A. Gale
Chief, Standards Development
Office of Hazardous Materials Standards



Mathews Associates, Incorporated
Battery Assemblers, Incorporated
220 Power Court
Sanford, FL 32771

Leary
3173.185(c)
Batteries
86-0159

July 10, 2006

Mr. Joseph Solomey
Assistant Chief Counsel
Hazardous Material Safety Law
Research and Special Programs
400 Seventh Street SW
Washington, DC 20590

Dear Mr. Solomey:

Our customer, General Dynamics has requested we obtain a written interpretation of 49 CFR, part 173.185(c) with regards to the 1794AS0953 lithium manganese Dioxide (LiMnO_2) battery we manufacture in support of their PRC-112 series rescue radios and ancillary devices.

Mathews Associates, Inc. manufactures the LiMnO_2 battery to Navy drawing 1794AS0953A/U (Mathews Associates, Inc. P/N: MAI-150484). This product is made with twelve CR123 LiMnO_2 cells each containing 0.5 grams of lithium in the anode and the cathode is solid. The aggregate quantity of lithium for the battery is 6 grams.

As we understand it, and as per Title 49 of the Code Federal Regulations (49CFR) Sub-Section 173.185(c) this battery is not subject to special handling requirements as Hazardous Material (Dangerous Goods) (FOR CONUS SHIPMENTS ONLY) as it does not exceed either 5 grams of lithium or lithium alloy per cell, or an aggregate quantity of more than 25 grams per battery, it has met the safety testing requirements (T1-T6 & T8) as determined by the UN Transport of Dangerous Goods-Manual Of Tests & Criteria, Fourth Revised Edition, and conducted by the UNICOR Federal Environmental Test Laboratory and is designed and packed in such a way (with the plastic dust cap affixed) as to prevent short circuits under conditions normally encountered in transportation.

We also understand however, that it is forbidden for transportation in bulk on passenger aircraft when transported from, to, or through the United States and must be labeled, "PRIMARY LITHIUM BATTERIES – FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT." As per 49 CFR Parts 171, 172, 173, and 175 under the title Hazardous Materials; Prohibition on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule of 29 Dec 2004.

When shipped OCONUS in bulk, this battery is to be treated as a Class 9 Dangerous Good (packing group II, UN3090, CAO) when shipped in bulk as per IATA Dangerous Goods Regulations, Section 4.2.

As we understand it, passengers and crew however can hand carry these batteries for personal use as well as spares in their checked baggage aboard domestic passenger flights. Does this also pertain to international flights?

Please advise. Feel free to contact me at the numbers below.

Sincerely,

David Hopkins
Vice President
Government Affairs

(407) 323-3390

Sales: (800) 871-5262

FAX: (407) 323-3115