



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

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

FEB 26 2007

Mr. Marc Juzkow
Chief Technology Officer
Mobile Power Solutions
1800 NW 169th Pl., B200
Beaverton, OR 97006

Ref. No. 06-0086

Dear Mr. Juzkow:

This is in response to your letter dated April 10, 2006 requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 100-180) applicable to testing for lithium cells and batteries. Specifically, you ask whether a lithium battery pack meets the requirements of the United Nations (UN) Manual of Tests and Criteria if it contains lithium cells that have not completed the entire UN testing cycle.

The answer is no. As specified under § 173.185 of the HMR, cells and batteries may be transported as Class 9 materials provided they meet the lithium battery requirements in the UN Manual of Tests and Criteria. The UN Manual of Tests and Criteria requires each cell and battery type to be subjected to tests 1 to 8.

You also ask whether a cell manufacturer that assembles battery packs is required to conduct the entire UN testing program on a particular cell transported in a battery pack, or could the cell manufacturer conduct T1-T5, T6 (component cells only), and T7 on the battery pack without also testing the lithium cells in the T1-T8 series.

A cell manufacturer that assembles battery packs is required to conduct tests 1 to 8 of the UN Manual of Tests and Criteria on each lithium cell transported in a battery pack.

Please do not hesitate to contact us for other inquiries concerning the Hazardous Materials Regulations.

Sincerely,

Edward T. Mazzullo

Director

Office of Hazardous Materials Standards



060086

173.185

MOBILE POWER
SOLUTIONS

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173.185
Lithium Batteries
06-0086

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April 10, 2006

Mr. Edward Mazzullo
Director of Hazardous Materials Standards
Research and Special Programs Administration
U.S. Department of Transportation
400 7th Street, SW
Washington, DC 20590

Re: Request for Interpretation on Lithium Battery Testing. Can a lithium battery pack be certified for UN/DOT if it does not have UN/DOT certified lithium cells?

Dear Mr. Mazzullo,

I am writing to request a clarification from your office. Is it possible for a lithium battery pack to be UN certified with lithium cells that have not completed the entire UN testing cycle?

In the UN Manual of Tests and Criteria, Sec 38.3.3 (c)(iv) lists the testing required for the T6 Impact Test and states "for component cells of rechargeable batteries, five cells at first cycle at 50% of the design rated capacity and five cells after 50 cycles ending in fully discharged states" must be tested. Our understanding from the clause for component cell testing is that the requirement to test component lithium cells of lithium battery packs would only be done when the component lithium cells had not previously been tested. This is the reason for our request for clarification.

An example of this would be a cell manufacturer that also assembles battery packs. They may never offer a particular cell for transport except when contained in a pack. So, would they be required to run the entire UN testing program on that cell? Or could they run T1-T5, T6 (component cells only) and T7 on the battery pack and certify the battery pack without also testing the lithium cells in the T1-T8 series?

Thank you for your time in reviewing this issue. I look forward to your timely response.

Sincerely,


Marc Juzkow
Chief Technology Officer

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