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Memorandum

February 8, 2010

TO: *Nexergy Customers*

SUBJECT: *Proposed Lithium Battery Air Transportation Regulations*

On Monday, January 11th, 2010, the US DOT published a Notice of Proposed Rulemaking on the transport of lithium metal and lithium ion batteries and equipment containing them. The proposed rule can be found in the Federal Register, Vol. 75, No. 6, pages 1302 thru 1324. There is also a PDF copy posted on Nexergy's website at www.nexergy.com/media/pdfs/TRANS_Fed_Reg_011110.pdf. A list of the key regulatory issues is located at the end of this mailing.

The public comment period is scheduled to end on March 12th, 2010. Multiple requests have been made by the battery and electronics industry to the DOT in an effort to extend the comment period. Thus far, the DOT has rejected all such requests.

Nexergy is continuing to work closely with the Rechargeable Battery Association (PRBA) and plans to submit our comments prior to the due date. We urge everyone who may be affected by this rule to provide their comments to the DOT as well. Comments may be submitted via the web, fax, mail, or hand delivery. Please see the section titled "ADDRESSEE" within the proposed rule for more information.

Nexergy is happy to provide assistance with awareness and understanding of the proposed rule, but we encourage our customers to familiarize themselves with the proposed rule to generate comments and prepare for compliance. The PRBA is a great resource to provide education on both current and proposed lithium battery regulations.

Based on the dates provided in the proposed rule, the final rule could take effect as early as September 24th, 2010. However, based on past experiences we believe the final rule will not be effective until the early part of 2011.

List of Key Issues

The following was interpreted by the PRBA and is not intended to be an all-inclusive list of issues. The intent is to point out regulations that may pose the largest impact. For a complete understanding of the proposed regulations, please review the Notice of Proposed Rulemaking.

- 1) **Eliminates exception for smaller lithium ion and lithium metal cells and batteries and nearly all equipment packed with or containing them when shipped by air.** Only excepts from regulation smaller cells and batteries and equipment packed with or containing them when transported by motor vehicle, rail car or vessel. Virtually all packages of batteries or equipment shipped by motor vehicle, rail car or vessel would need to be marked (“LITHIUM BATTERIES – FORBIDDEN FOR TRANSPORT ABOARD AIRCRAFT”). Only equipment packed with or containing lithium ion or lithium metal cells or batteries with a lithium content of not more than 0.3 grams or a Watt-hour rating of not more than 3.7 Wh would be excepted from this marking requirement. (49 C.F.R. 173.185(d))
- 2) **Applies new packaging requirements on shipments of equipment that contain lithium ion or lithium metal cells or batteries, as well as on batteries.** For batteries contained in equipment, requires strong outer packaging that is waterproof or is made waterproof through the use of an inner packaging or a liner, unless the equipment is made waterproof by nature of its construction. These requirements would apply regardless of the mode of transportation (air, ground, etc.) and would apply to all equipment containing lithium ion or lithium metal cells or batteries unless the cells or batteries have a lithium content of not more than 0.3 grams or a Watt-hour rating of not more than 3.7 Wh. The ICAO Dangerous Goods Panel agreed in October 2009 to remove this waterproof packaging requirement from the ICAO Technical Instructions. For batteries shipped by air, requires UN specification packaging that meets the Packing Group II performance level. (49 C.F.R. 173.185(a)(2)(ii) and 49 C.F.R. 173.185(c))
- 3) **Requires employees who ship lithium ion and lithium metal cells and batteries and equipment packed with or containing them, including excepted batteries and equipment, to receive hazardous materials training.** This requirement would not apply to employees who ship only equipment packed with or containing lithium ion or lithium metal cells or batteries with a lithium content of not more than 0.3 grams or a Watt-hour rating of not more than 3.7 Wh. (49 C.F.R. 173.185(d))
- 4) **Places restrictions on where shipments of lithium ion and lithium metal cells and batteries and equipment can be stowed on aircraft.** Shipments must be stowed in accessible manner, in FAA approved container or Class C compartment. (Lithium metal batteries would still be prohibited on passenger aircraft.) These restrictions will make it much more difficult and expensive to transport these materials by air. The requirements would apply to all aircraft operating to, from or within the U.S. as well as to U.S. registered aircraft operating anywhere in the world. Limitations would not apply to equipment packed with or containing lithium ion or lithium metal cells or batteries with a lithium content of not more than 0.3 grams or a Watt-hour rating of not more than 3.7 Wh. (49 C.F.R. 175.75)



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- 5) **Imposes testing and battery design criteria inconsistent with the UN Manual of Tests and Criteria, ICAO Technical Instructions and IMDG Code.** (49 C.F.R. 173.185(a)(1)(i)(A)(1); 49 C.F.R. 173.185 (a)(1)(i)(A)(2) and 49 C.F.R. (a)(1)(i)(B)(iii))
- 6) **Prohibits shipping by air and vessel lithium ion and lithium metal cells or batteries that have been damaged, identified as defective, or are otherwise being returned to the manufacturer for safety reasons.** The proposal is inconsistent with an analogous provision in the ICAO Technical Instructions, which applies only to “cells and batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, *that have the potential of producing a dangerous evolution of heat, fire or short circuit.*” (49 C.F.R. 173.185(g))
- 7) **Prohibits passengers from placing spare “dry cell” batteries in checked baggage.** (49 C.F.R. 175.10)

if you have any questions on this subject, please contact your Nexergy account representative.

Best Regards,

A handwritten signature in blue ink that reads "M Matheny".

Mitchell Matheny
Regulatory Affairs Manager

DISCLAIMER

This notice is intended to give you a general awareness of the proposed lithium battery transportation regulations and does not constitute legal advice. The actual Final Standards, when published, in the original language should be reviewed and used for all business, legal, and product compliance purposes.