

May 11, 2012



Filed Electronically Via
Docket No. PHMSA-2009-0095 (HM-224F)

Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

Re: PRBA Comments on HM-224F Lithium Battery Notice of Proposed Rulemaking;
request for additional comments 77 Fed. Reg. 21714 (April 11, 2012)

PRBA – The Rechargeable Battery Association appreciates the opportunity to file additional comments on PHMSA’s HM-224F lithium battery notice of proposed rulemaking; request for additional comments. PRBA supports PHMSA’s efforts to harmonize the U.S. hazardous materials regulations (HMR) applicable to the air transport of lithium batteries with lithium battery Packing Instructions 965 and 968 adopted at the February 6-10, 2012 ICAO Dangerous Goods Panel meeting on lithium batteries. Section 828 of FAA Modernization and Reform Act of 2012, Public Law. No.112-95 (February 14, 2012) demands no less.

The comments that follow address PHMSA’s harmonization proposal and related regulatory issues. These issues impact both the transport of lithium batteries and equipment and vehicles that contain lithium batteries. We focus, as PHMSA requested, primarily on the issues identified in this latest proposal.

BACKGROUND AND GENERAL COMMENTS

PRBA’s members manufacture approximately 70% of the lithium ion cells produced in the world today. They also include leading manufacturers of consumer, medical and defense products that incorporate those batteries. Our members also are developing and manufacturing the lithium ion batteries that will bring to market a new generation of hybrid and electric vehicles.

PRBA filed 686 pages of detailed comments and exhibits on PHMSA’s January 11, 2010 HM-224F proposal. Our comments included an extensive economic analysis on the impacts the proposed rule would have on PRBA members and others. After reviewing it, we expect that PHMSA now recognizes that its own economic analysis significantly underestimated the impact on manufacturers of lithium batteries, portable electronic equipment and medical devices and U.S.-registered airlines.

Many of the costs identified in that analysis will be avoided by harmonizing provisions with the 2013-2014 ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air. While these provisions will have a very real impact on many of our members, that impact will be substantially less than would have been the economic and practical supply chain impacts of the January 11, 2010 proposal.

Furthermore, harmonization of the HMR with requirements being put in place in the remainder of the world will enhance safety by avoiding the burdens of complying with multiple and inconsistent safety requirements.

In short, PHMSA incorporating the requirements of the 2013-2014 ICAO Technical Instructions into the U.S. HMR is both required by statute and good public policy.

PHMSA'S REQUEST FOR INFORMATION

PHMSA's April 11, 2012 proposal contained several questions related to the transport of lithium batteries. These questions and PRBA's responses are listed below.

- 1. Beginning in 2013, how many lithium cells, batteries and packages are anticipated to be subject to the additional requirements of the proposed Section IB of ICAO Packing Instructions 965 and 968, or, in other words, how many shipments of lithium cells, batteries, and packages were previously excepted from full hazardous materials packaging and labeling requirements, but would now be subject to additional requirements? These packages would typically contain more than 2 batteries or 8 cells, but weigh less than 10 kg. Also, if quantifiable, please specify projected figures for shipments that would fall under Section IA and Section II.**

As previously noted, PRBA filed a detailed economic analysis based on PHMSA's January 11, 2010 proposal, not the new ICAO Packing Instructions 965 and 968. The short time period provided to respond to PHMSA's request for additional comments has limited PRBA's ability to prepare a supplement to that analysis, but it nonetheless provides the basis for some comparisons between what PHMSA proposed in 2010 and the new ICAO Packing Instructions 965 and 968.

In the January 2010 proposal, PHMSA proposed to require that nearly all currently excepted lithium ion and lithium metal cells and batteries and equipment packed with or containing them be shipped as fully-regulated Class 9 hazardous materials when offered for air transport. As documented in our economic analysis, the first year impact of this change on the battery and electronics industries was estimated to be \$1.1 billion. PHMSA's April 11, 2012 proposal appears to abandon new regulation of equipment shipments, but rather focuses on the transportation by air of excepted lithium ion and lithium metal cells and batteries. PRBA supports this important change.

Tables 2-1 and 2-2 below show the 2011 U.S. trade in lithium ion batteries and related products. We filed similar data with PHMSA in response to the 2010 proposal. The trade data show that the number of units and shipments of lithium ion batteries by air into the U.S. is much lower than the number of units and shipments of electronic equipment (*e.g.*, cellphones, notebooks, audio and video equipment). The percentage of lithium ion batteries shipped by air into the U.S. (59%) also is lower than cellphones (83%) and notebooks (84%). Therefore, by focusing only on shipments by air of lithium ion (and lithium metal) cells and batteries, the April 11, 2012 proposal will have substantially smaller economic impact than PHMSA's January 11, 2010 proposal.

U.S. TRADE IN LITHIUM ION BATTERIES AND RELATED PRODUCTS

Table 2-1 U.S. Trade Value for Affected Products (2011)				Table 2-2 U.S. Air Trade Volumes for Affected Products (2011)				
	Total (millions)	Air (millions)	% of Total	Units (millions)	Shipments (000)	Units per Shipment	Kilograms per Shipment	Value per Unit
<u>U.S. Imports</u>				<u>U.S. Imports</u>				
Cellphones & Related Products	\$66,006	\$55,007	83%	398.8	248.8	1,603	601	\$138
Notebook and Handheld Computers	\$42,169	\$35,352	84%	75.0	369.8	203	472	\$471
Audio & Video Equipment	\$14,568	\$6,443	44%	47.9	85.3	561	422	\$135
Hand Power Tools	\$2,256	\$82	4%	0.7	5.4	124	249	\$123
Other Electronic Products	\$8,690	\$2,858	33%	66.6	131.0	508	132	\$43
Combined Total	\$133,689	\$99,742	75%	588.9	840.3	701	517	\$169
Lithium Ion Batteries	\$1,041	\$615	59%	56.1	28.2	1,991	356	\$11
Lithium Metal Batteries	\$271	\$152	56%	77.6	5.3	14,579	347	\$2
	\$1,312	\$767	58%	133.7	33.5	3,990	354	\$6

2. What impacts (if any) would arise from the allowance to use non-UN Specification packaging for cells and batteries to be shipped under the proposed Section IB of ICAO Packing Instructions 965 and 968?

Under the new ICAO Packing Instructions 965 and 968, most manufacturers of lithium ion cells and batteries would likely be able to continue to use their existing packaging to comply with the new Section IB packaging requirements. This is because most packaging used by responsible shippers already meets Section IB's requirement that it be capable of withstanding a 1.2 meter drop in any orientation without:

- o damage to cells or batteries contained therein;
- o shifting of the contents so as to allow battery to battery (or cell to cell) contact; and
- o release of contents.

Indeed, compliance with these requirements is the reason the industry has had an excellent safety record for shipping excepted cells and batteries. They clearly provide an adequate level of safety for the cells and batteries during transport.

Pages 3-4 to 3-9 of PRBA's economic analysis of PHMSA's January 11, 2010 proposal shows the significant costs that shippers would incur if currently excepted cells, batteries and equipment would be subject to UN specification packaging as

PHMSA initially proposed. They would come to \$22.9 million annually. By alternatively adopting Packing Instructions 965 and 968 from the 2013-2014 ICAO Technical Instructions, these costs will be avoided.

3. What impacts (if any) would result if PHMSA chooses not to harmonize with 2013–2014 ICAO Technical Instructions applicable to lithium batteries?

In light of Section 828 of the FAA Modernization and Reform Act of 2012, PHMSA has only two alternatives to harmonizing the HMR with ICAO Technical Instructions: it could either leave current regulations in place, or it could adopt less stringent regulations. Either alternative would be unwise. Both would cause confusion that is likely to increase, rather than limit, transportation risk.

PHMSA has often recounted the importance of putting in place uniform international safety regulations. For example, in 2009 the Agency explained the benefits of international consistency in an advanced notice of proposed rulemaking on international harmonization:

Harmonization of domestic and international standards becomes increasingly important as the volume of hazardous materials transported in international commerce grows and the cost of conducting international commerce increases. Harmonization facilitates international trade by minimizing the costs and other burdens of complying with multiple or inconsistent safety requirements for transportation of hazardous materials to and from the United States. By facilitating compliance with international standards, harmonization also tends to enhance safety for international movements, but only if the international standards themselves provide an appropriate level of safety.

See 74 Fed. Reg . 53982, 53983 (Oct. 21, 2009).

Furthermore, there is little doubt that a central goal of Section 828 was to assure consistency between U.S. and international regulations. The Conference Report on Section 828 states: “... *In almost all circumstance, regulations governing the air transportation of lithium metal and lithium ion cells or batteries be consistent with provisions of the International Civil Aviation Organization Technical Instructions...*”) Thus, if PHMSA chose not to harmonize with the ICAO Technical Instructions, it would frustrate the intent of Congress.

4. Will harmonization with the 2013–2014 ICAO Technical Instructions result in any modal impacts or diversions, *i.e.*, will shippers be less likely to ship by air, in favor of maritime, truck, or rail transport of these materials? If a modal shift will occur, please quantify the impact of this shift if possible (costs increase or decrease, shipment time differences, and other considerations).

Adopting Packing Instructions 965 and 968 of the ICAO Technical Instructions in lieu of the far more burdensome and unworkable elements of the January 11, 2010 proposal will result in far less diversion than would adoption of that proposal. As PRBA and others explained in their comments in 2010, that proposal would have incentivized companies to ship products by air to Canada or Mexico (using non-U.S. air carriers), and then to use ground transportation to bring the products into the U.S. This would have been enormously disruptive. In contrast, PHMSA's incorporation of Packing Instructions 965 and 968 into the HMR will be consistent with requirements imposed throughout the world (as a result of the new ICAO regulations) and thus avoid these consequences.

Nonetheless, PRBA expects there will be some shift away from air transportation for shipments of excepted lithium ion cells and batteries because of the more costly requirements for "bulk" shipments of these products as Class 9 hazardous materials. When shipped by sea, these larger consignments can be offered for transport in accordance with Special Provision 188 of the IMDG Code. Once they reach the port, these would be transported by motor vehicle to their final destination.

Alternatively, in some limited cases, shippers may be able to modify their battery packaging to accommodate the new requirements for shipping under the exceptions in Section II of Packing Instructions 965 and 968.

5. What is the projected burden (time and/or cost) for compliance with the information collection activities and disclosures outlined in this notice? If PHMSA were to harmonize with the 2013–2014 ICAO Technical Instructions, are there other Paperwork Reduction Act related activities associated with implementation that PHMSA should consider?

PHMSA estimated in the January 11, 2010 NPRM minor cost impacts for "information collection" that are limited to design documentation and package documentation. The annual costs were estimated to be approximately \$48,000. Because the April 11, 2012 NPRM does not require a change in packaging for currently excepted cells and batteries that will be subject to Section IB in Packing Instructions 965 and 968 of the ICAO Technical Instructions, there should be no additional paperwork requirement related to packaging. Assuming PHMSA provides an alternative to using a hazardous materials shipping paper consistent with the alternative to a shipper's declaration for dangerous goods authorized under the new Section IB in Packing Instructions 965 and 968, this additional paperwork requirement will be very limited.

The paperwork associated with shipping excepted cells and batteries under the modified Section II of Packing Instructions 965 and 968 of the ICAO Technical Instructions is limited and not expected to be a significant burden to the industry. In fact, many of the companies that would be impacted by PHMSA's harmonizing with the ICAO Technical Instructions already ship internationally and are subject to the existing paperwork requirements.

6. If PHMSA were to harmonize the 2013–2014 ICAO Technical Instructions in a final rule, are there ways in which PHMSA could reduce regulatory burden or cost of implementation, for example, delayed effective date?

Due to the wide-spread implications these changes would have on the regulated community in the U.S., PRBA urges that PHMSA provide a six-month transition to comply with the new requirements after the final rule is published. PHMSA also should include a provision in the final rule authorizing lithium batteries offered for transportation prior to January 1, 2013 to be permitted to comply with the 2011-2012 ICAO Technical Instructions or the 2013-2014 Technical Instructions until January 31, 2013. This will provide shipments offered prior to implementation of the 2013-2014 ICAO Technical Instructions' requirements sufficient time to reach the final destination.

ADDITIONAL ISSUES RELATED TO HM-224F RULEMAKING AND THE TRANSPORTATION OF LITHIUM BATTERIES

As previously noted, PRBA filed extensive detailed comments and exhibits on PHMSA's January 11, 2010 proposal. These comments must be given full consideration by PHMSA. Below are additional comments related to HM-224F, some of which were included in our original comments filed in March 2010.

- ◇ The requirement of Section 828 of FAA Modernization and Reform Act of 2012 that DOT not issue or enforce any lithium battery air transportation regulations that are more stringent than the ICAO Technical Instructions apply not only to the provisions on which PHMSA has now requested comment but also to regulations that address cargo quantity and stowage limitations on aircraft, to testing requirements in accordance with the UN Manual of Tests and Criteria, and to hazardous materials training requirements. Therefore, the provisions included in the January 11, 2010 NPRM related to quantity and stowage limitations of lithium batteries on aircraft and the testing requirements for lithium batteries in accordance with the UN Manual of Tests and Criteria that are more stringent than the requirements of the ICAO Technical Instructions must not be included in PHMSA's final rule on lithium batteries. (*See* proposed 49 CFR § 173.185(a)(i)(A)(1) and 49 CFR § 175.75(c).) Failure to remove these provisions would violate the FAA Modernization and Reform Act of 2012.
- ◇ Nonetheless, in addition to harmonizing the HMR with the ICAO Technical Instructions, it is important for PHMSA to include in its final rule on lithium batteries several provisions that were in the January 11, 2010 proposal. These include:
 - Replacement of the equivalent lithium content requirements for lithium ion cells and batteries with Watt-hours consistent with international standards;

- Providing exceptions for “small” and “medium” size lithium cells and batteries shipped by motor vehicle and rail car;
 - Authorizing shipments of prototype lithium ion batteries in vehicles without an approval;
 - Authorizing shipments of “small production” and prototype lithium cells and batteries consistent with the IMDG Code and ICAO Technical Instructions; and
 - Providing for the transport by highway or rail of damaged, defective and recalled lithium batteries consistent with PRBA’s original comments on the January 11, 2010 rulemaking. This provision also should authorize the transport of damaged, defective and recalled batteries contained in equipment. Many batteries are permanently installed in equipment and can only be removed by professional technicians. Failing to provide authorization for the transport of damaged, defective or recalled batteries contained in equipment will create significant obstacles for portable electronic product manufacturers who will be forced to seek an Approval from PHMSA to ship their products.
- ◇ In the preamble to the 2010 proposal, PHMSA requested comments on whether it should consider placing a limit on state of charge for lithium ion cells and batteries shipped by air. In our March 2010 comments, PRBA did not oppose such limits. However, they were expressly rejected by the ICAO Dangerous Goods Panel when Packing Instruction 965 was amended, in favor of significant new packaging restrictions on the transport of lithium ion cells and batteries shipped by air. A state of charge requirement thus would be more stringent than the ICAO Technical Instructions and its adoption would conflict directly with Section 828 of the FAA Modernization and Reform Act of 2012. In addition, we have learned that many downstream shippers of lithium ion cells and batteries would find it very difficult to comply with such a limitation. Today, therefore, PRBA does not believe a limitation on state of charge is lawful or appropriate.
- ◇ We explained in our March 2010 comments that promulgation of January 11, 2010 proposal likely would force the closing of most battery product stewardship programs in the U.S. because of the mandatory hazardous materials training requirements it contains. The closing of these programs would create a direct conflict with state environmental and recycling regulations. We reiterate this important point now. In issuing final regulations on lithium batteries, PHMSA must avoid imposing requirements that would frustrate the continued successful operation of such stewardship programs as the Rechargeable Battery Recycling Corporation’s nationwide Call2Recycle® program. If PHMSA were to require hazardous materials training for all shippers of excepted cells and batteries offered for recycling and transported by motor vehicle, hundreds of thousands of employees of retail stores and governmental facilities would have to be trained resulting in considerable detriment to these stewardship programs. This requirement should not be included in PHMSA’s final rule on lithium batteries.

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Thank you for taking our comments into consideration. If you have any questions regarding our comments, please contact me at 202.719.4109 or gkerchner@wileyrein.com, or PRBA's General Counsel at 202.719.7102 or dweinberg@wileyrein.com.

Sincerely,

George A. Kerchner

George A. Kerchner
Executive Director

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