U.S. Department
of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave., S.E.
Washington, DC 20590

JAN 14 2015

Mr. James W. Rubin
Counsel
Dentons US LLP
1301 K Street, NW
Suite 600, East Tower
Washington, DC 20005

Reference No. 14-0163

Dear Mr. Rubin:

This is in response to your August 19, 2014 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the shipment of used lithium batteries. Your questions are paraphrased as follows:

Q1) Can used lithium batteries be shipped subject to the same regulatory requirements as new lithium batteries absent clear and manifest evidence of defect or damage?

A1) Yes. The shipping and packaging requirements of § 173.185 do not differentiate between new or used lithium cells or batteries.

Q2) Can shippers of used lithium batteries reasonably rely on the testing and certification of the manufacturer of the batteries and have no independent testing responsibility?

A2) In accordance with § 171.1(b)(11), each person who offers a hazardous material for transportation is responsible for certifying that the hazardous material is in proper condition for transportation and in conformance with the requirements of the HMR. The shipper may elect to rely on the testing and certification of the manufacturer.

Q3) At what point does the condition of the used battery require further action by the shipper to determine whether the battery is defective or damaged and how would a shipper reasonably recognize such a condition exists?

A3) As provided by § 173.185(f), a lithium cell or battery is considered to be damaged or defective if it is in such a condition that it has the potential of producing a dangerous evolution of heat, fire or short circuit while in transport.

I trust this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

Shane C. Kelley
Acting International Standards Coordinator
Standards and Rulemaking Division

Isabsch
§ 173.185
Batteries
14-0163

Dodd, Alice (PHMSA)

From: Ciccarone, Michael CTR (PHMSA)
Sent: Thursday, August 21, 2014 2:09 PM
To: Hazmat Interps
Subject: FW: Letter of interpretation request [SNRD-US_Active.FID6139214]
Attachments: CBettsLtr.pdf

Shante and Alice,

Please submit this for a formal letter of interpretation. Mr. Rubin spoke to Adam Lucas in the HMIC.

Thanks,

Mike

From: Rubin, James W. [mailto:james.rubin@dentons.com]
Sent: Tuesday, August 19, 2014 2:32 PM
To: INFOCNTR (PHMSA)
Subject: Letter of interpretation request [SNRD-US_Active.FID6139214]

Attached please find a copy of a request for a letter of interpretation. I have sent a hard copy as well. Please let me know if you have any questions.

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August 19, 2014

Charles E. Betts
Director of Standards of Rulemaking
Office of Hazardous Materials Standards
Pipeline and Hazardous Materials Safety
Administration
U.S. Department of Transportation
East Building
1200 New Jersey Ave., SE
Washington, DC 29590-0001

Re: Letter of Interpretation Request -- 49 C.F.R. § 173.185 and Used Lithium Batteries

Dear Mr. Betts:

I represent clients who are considering undertaking shipments of used lithium metal (primary, non-rechargeable) and lithium ion batteries (secondary, rechargeable) (collectively "lithium batteries") in commerce, including by air carrier. I am generally familiar with the Pipeline and Hazardous Materials Safety Administration's ("PHMSA") regulations regarding shipments of lithium batteries as well as applicable international standards, including those of the International Air Transport Association ("IATA").

Pursuant to 49 C.F.R. section 105.20, I request a letter of interpretation of PHMSA regulations regarding their applicability to shipments of used lithium batteries and the responsibilities of shippers of those used batteries. The term "used lithium batteries" is intended to include batteries that are not new from the manufacturer but rather have undergone some level of use and are no longer in their original packaging, and that are shipped on their own, with consumer goods (e.g. laptops) or inside such consumer goods. Their charges may range from nearly full to near the end of life, but the batteries being shipped are intended for further use. They do not include batteries shipped for waste disposal, recycling or recall.

As explained further below, neither PHMSA regulations, specifically 49 C.F.R. section 173.185, nor international standards provide clarity on what actions a shipper of used lithium batteries

must take, if any, to determine if a given shipment of used lithium batteries still meets United Nations ("U.N.") testing criteria, conforms to 49 C.F.R. section 173.185, or is otherwise not defective and not damaged such that PHMSA authorization is not needed. I understand from discussions with consultants in the industry that it is not generally possible or practicable for a shipper to accurately or effectively test used lithium batteries that may be in a shipment to make sure it conforms with its original certification, especially if it is inside a consumer good.

As to damaged and defective batteries, it may be obvious in a given situation that a battery is damaged, e.g. where there are external indications of damage such as high temperature, signs of rupture, venting, disassembly or leakage from the battery or consumer good. But absent these external indications, a shipment of used batteries may bear no other indications of damage or defect and otherwise look very much like a shipment of new batteries.

Despite this lack of clarity, I understand that shipments of such batteries are currently being undertaken by various shippers who rely on the original certification of manufacturers and hold up shipments of used batteries only where a damage or defect is clear and manifest, such as the circumstances described above. My hope is to secure guidance that such practices are acceptable under PHMSA regulations.

To this end, and as explained below, I request that PHMSA provide a regulatory interpretation and clarification to 49 C.F.R. section 173.185 and related provisions in order to answer and provide guidance on the following questions:

1. Can used lithium batteries be shipped subject to the same regulatory requirements as new lithium batteries absent clear and manifest evidence of defect or damage, or are there any different or additional requirements applied to used lithium batteries?

2. Can shippers of used lithium batteries reasonably rely on the testing and certification of the manufacturer of those batteries and thus have no independent testing responsibility?

3. At what point does the condition of the used battery require further action by the shipper to determine whether the battery is defective or damaged such that it does not meet the original testing conditions or otherwise conform to 49 C.F.R. § 173.185; and how would a shipper reasonably recognize such a condition exists?

Federal and international standards appear to focus on lithium batteries in general, without distinguishing between new and used batteries. My understanding is that lithium batteries are generally considered Class 9 miscellaneous hazardous materials and therefore subject to PHMSA regulations, including 49 C.F.R. section 173.185 as well as sections 171.24 and 172.102 special

provisions 188-190 and A100-104, and applicable international standards, including DIR 3.9.2.6. In addition, lithium metal batteries can only be shipped on cargo aircraft and require specific labeling and packaging. 49 C.F.R. §§171.24, 172.102 , special provision A100.

Moreover, under PHMSA regulations, lithium batteries "must be of a type proven to meet the requirements of each test in the U.N. Manual of Tests and Criteria," which, for at least air travel, I understand to be Part II, Sub-Section 38.3 of the U.N. Manual of Tests and Criteria. It is my understanding that shippers of lithium batteries do not perform their own testing but reasonably rely upon the certifications of manufacturers that the batteries meet the required tests. Lithium batteries which do not comply with 49 C.F.R. section 173.185 can only be transported under conditions approved by PHMSA. Defective and damaged batteries considered at risk for over-heating, short-circuiting or causing fire are prohibited from transport, except on conditions approved by PHMSA. I presume this is because, at least in part, they no longer meet the testing criteria in 49 C.F.R. section 173.185(a) and present a hazard to safety.

Beyond these provisions, however, it does not appear that PHMSA regulations nor international standards elaborate upon what actions shippers of used lithium batteries must take, if any, to determine if such used batteries still meet the manufacture's testing certification or otherwise are defective or damaged. This issue was the subject of discussions at U.N. Sub-Committee of Experts on the Transport of Dangerous Goods, with initial submissions reviewing how used and damaged lithium batteries should be transported. However, the focus of those discussions soon shifted exclusively to damaged and waste batteries, with parties generally concluding that transport of "[u]sed lithium batteries at the end of their life time can be treated in the same way as new batteries if there are no indications that they are damaged," but that standards were needed for shipments of new batteries subject to recall and damaged used batteries. The U.N. Subcommittee did not further elaborate on how a shipper might determine if a battery were damaged, other than to suggest some examples of lithium batteries with indication of damage.

I reiterate that this request does not pertain to waste batteries, batteries shipped for recycling or reclamation, recalled batteries or prototype batteries. Rather, as stated above, the questions pertain instead to shipment of used batteries that have undergone some level of use and are no longer in their original packaging; they may be shipped on their own, with or inside a product.

I am aware of Special Permit DOT-SP 15827 (June 12, 2013) which states that "spent, used lithium ion polymer batteries are not authorized" under 49 C.F.R. section 173.185(a) except as permitted by special permit conditions. But this special permit does not explain the legal or regulatory basis for this conclusion, the condition of the batteries considered (i.e. must the

battery be completely spent and not intended for continued use?), or whether it also applies to other types of used lithium batteries.

I am also aware that PHMSA replied in a recent letter of interpretation that:

We have observed various transportation and non-transportation incidents involving lithium batteries not properly protected from short circuits. While these incidents likely resulted from a lack of compliance, they serve to illustrate the point that even while partially discharged, lithium batteries pose a risk of evolving a dangerous quantity of heat while in transportation. Therefore, spent or used lithium batteries must be offered for transportation in a manner that protects against short circuits, damage and the evolution of a dangerous quantity of heat in accordance with all applicable requirements of the HMR. (emphasis added)

Again, this statement does not specify precisely how such used batteries should be so protected, other than in conformance with 49 C.F.R. section 173.185 and other regulations and standards applicable to new lithium batteries.

It is my understanding that trade in used lithium batteries is growing, and that PHMSA as well as international bodies remain concerned that such shipments be made as safely as possible. Hence, it is in the interests of all parties and the public to provide guidance clarifying the requirements and obligations of shippers of used lithium batteries, as I have sought in the questions listed above.

Thank you for your consideration of the above requests. I look forward to your reply. Please contact me at 202-408-9146 or james.rubin@dentons.com with any questions, concerns or comments.

Sincerely,

James W. Rubin
Counsel