



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, DC 20590

MAY 31 2017

Mr. Bob McClelland
Air Dangerous Goods Manager
UPS Airlines
55 Glenlake Parkway, NE
Atlanta, GA 30328-3474

Reference No. 16-0125

Dear Mr. McClelland

This letter is in response to your July 20, 2016, email requesting further clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to power banks or supplemental power units containing lithium ion batteries. In this email, you ask a series of follow-up questions in response to a previously-issued letter from June 23, 2016 (Reference No. 16-0018).

We have paraphrased and answered your questions as follows:

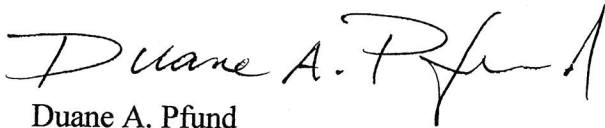
- Q1. Keeping in mind that many products described as power banks, power units, supplemental power, etc. include embedded electronic accessories such as a fuel gauge or a flashlight, you ask if a power bank that includes such accessories meets the definition of "equipment" as defined in § 173.185.
- A1. For purposes of the HMR, a power bank as described in your email is a battery and must be transported using a proper shipping name that most appropriately describes the battery type housed in the power bank. This criterion applies regardless of whether the power bank has additional accessories. The HMR define "equipment" as the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation (*see* § 173.185). As described in our previous response, a battery in a power pack is used to supply electric power to separate equipment.
- Q2. You ask if—under the assumption that a power bank is a battery and not equipment—it is correct to assume that the power bank must be a type proven to meet the requirements of each test in the United Nations (UN) Manual of Tests and Criteria, Part III sub-section 38.3.
- A2. The answer is yes. The cells or battery (if applicable) in the power bank must be a type proven to meet the requirements of each test in the United Nations Manual of Tests and

Criteria, Part III sub-section 38.3. For the purposes of testing in accordance with the UN Manual of Tests and Criteria, Part III sub-section 38.3, the power bank or the internal cell/battery may be subjected to the tests as appropriate.

- Q3. You ask if a shipper outside the United States may offer power banks as "UN3481, Lithium ion batteries contained in equipment."
- A3. The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions) recently adopted a definition of equipment similar to that in the HMR. This definition clarified the applicability of the ICAO Technical Instructions. It is the opinion of this Office that power banks of the type described in your email when offered for transport in accordance with the ICAO Technical Instruction should be described as "UN3480, Lithium ion batteries."

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Duane A. Pfund". The signature is fluid and cursive, with a large initial "D" and a stylized "P".

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Leary
§ 173.185
Batteries
16-0125


UPS Airline Dangerous Goods Department
6406 Grade Lane, West Mezzanine
Louisville, KY 40213
502.359.2900 Tel

July 20, 2016

VIA ELECTRONIC MAIL

Mr. Duane Pfund
International Standards Coordinator
Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Subject: Clarification of Power Banks (Ref. No.: 16-0018)

Dear Mr. Pfund

Thank you for your June 23, 2016 response to our question related to the proper classification of lithium battery equipped items described as power banks. We would like to ask a few follow-up questions related to the clarification provided:

1. Many products commercially described as power banks, power units, supplemental power, etc. also include embedded electronic accessories such as power meters, flashlights and other (see Appendix). If the batteries in the power bank also power the electronic accessory does the power bank meet the definition of equipment in § 173.185?
2. Is it correct to assume that a power bank not meeting the definition of equipment, and thus considered a lithium ion cell or battery, must be tested in accordance with the UN Manual of Tests and Criteria, Part III, subsection 38.3?
3. Although a change is planned for 2017, the ICAO Technical Instructions do not currently carry the same definition of equipment as § 173.185. With no USG variation in the ICAO T.I. could shippers outside the U.S. who classify and offer power banks as "contained in equipment" continue to do so, including for transport to or through the United States, until the regulations are harmonized or a U.S. variation is posted?

Thank you again for your initial clarification and we look forward to your further response.

Sincerely,

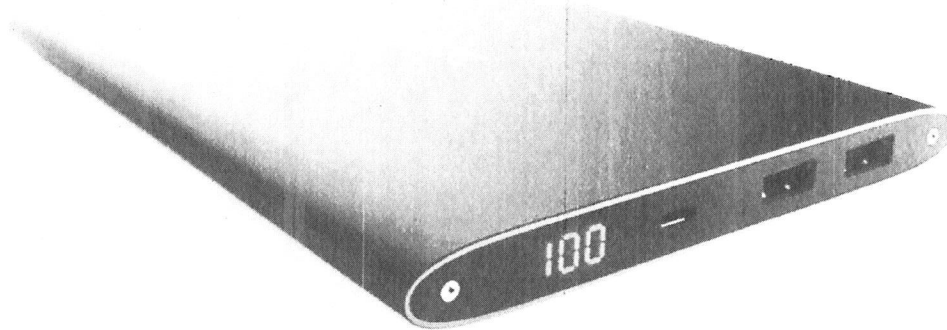


Robert McClelland
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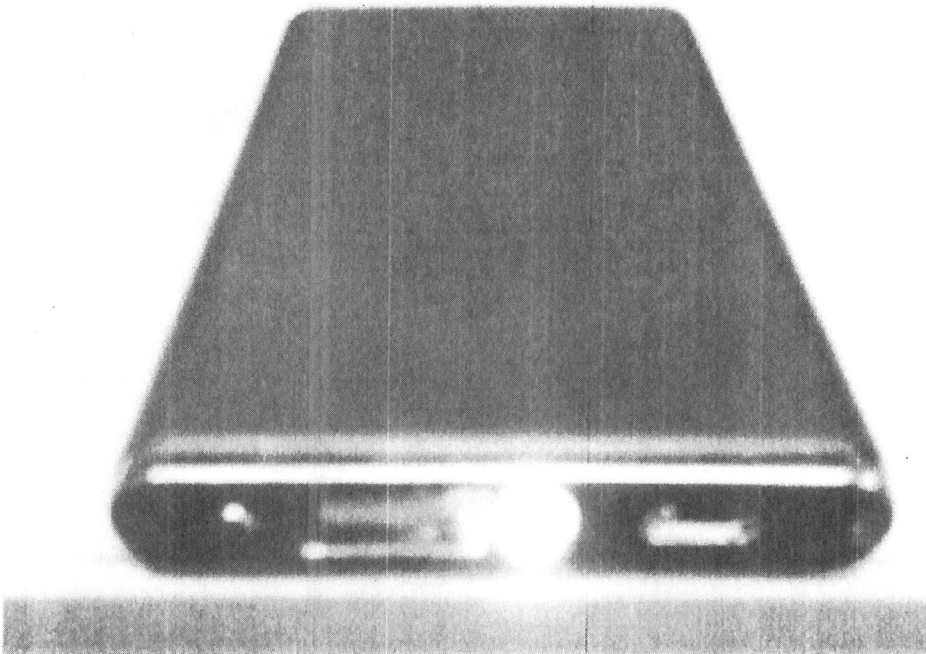
rmcclelland@ups.com

Appendix

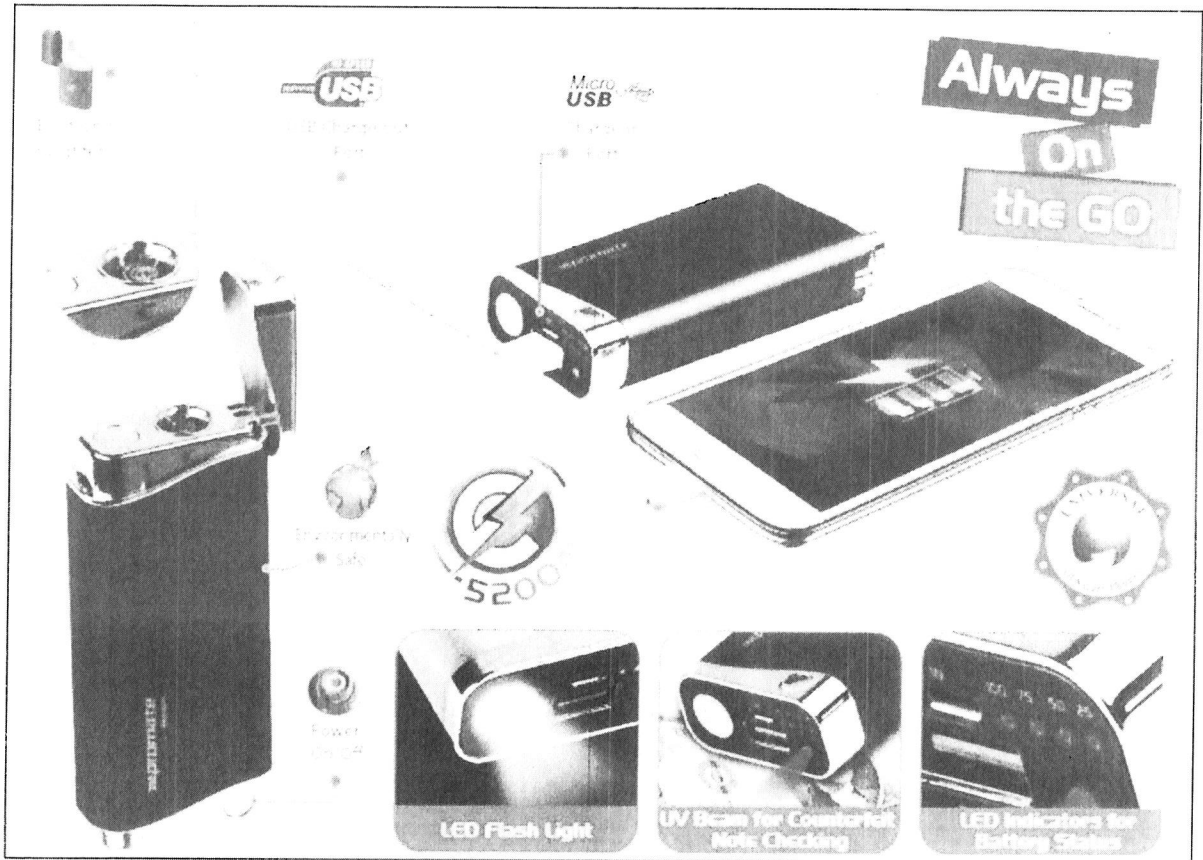
Power bank with charge indicator:



Power bank with flashlight:



Power banks with multi tools:





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JUN 23 2016

Mr. Bob McClelland
Air Dangerous Goods Manager
UPS Airlines
55 Glenlake Parkway, NE
Atlanta, GA 30328-3474

Ref. No.: 16-0018

Dear Mr. McClelland

This responds to your email dated January 21, 2016, requesting clarification of the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to power banks or supplemental power units containing lithium ion batteries. Specifically you ask whether for the purposes of the HMR such articles are considered "UN3480, Lithium ion batteries" or "UN3481, Lithium ion batteries contained in equipment."

The HMR define *Lithium ion cell or battery* as a rechargeable electrochemical cell or battery in which the positive and negative electrodes are both lithium compounds constructed with no metallic lithium in either electrode (see § 171.8). The HMR further define *equipment* as the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation (see § 173.185).

Based on these criteria, power banks or supplemental power units containing lithium ion batteries are best described as "UN3480, Lithium ion batteries." The battery housed inside a power bank does not power the power bank in the same manner as a battery powers an electric wheelchair or a laptop computer. Rather, a battery in a power pack is used to supply electric power to separate equipment. Thus, for purposes of the HMR, a power bank is a battery and must be transported using a proper shipping name that most appropriately describes the battery type housed in the power bank.

I hope this answers your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division at (202) 366-8553.

Sincerely,

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division