



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

October 15, 2019

Chris Heminger, CPEA
Managing Partner
Total Compliance LLC
5859 Morganwood Square
Hilliard, OH 43026

Reference No. 19-0092

Dear Mr. Heminger:

This letter is in response to your June 26, 2019, letter and subsequent telephone conversation requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to proper shipping names.

In your letter, you state your client manufactures equipment powered by a removable, 16.2 Wh lithium ion battery power source. The removable power source consists of two, type A lithium ion batteries that are attached to a printed circuit board (PCB) and two safety circuits, all of which is completely enclosed within a solid plastic housing. You further state that the batteries themselves are intended to power equipment to which this device will ultimately be connected. Finally, you state your client believes that this material is best described as "UN3481, Lithium ion batteries contained in equipment, 9." You ask whether your client's interpretation of the regulations is correct.

The answer is no. The batteries attached to a PCB do not power the PCB in the same manner as a battery powers an electric wheelchair or a laptop computer, but are instead used to supply electric power to separate equipment. Therefore, for purposes of the HMR, this device is essentially a battery and must be transported using a proper shipping name that most appropriately describes the battery type attached to the PCB.

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

Sincerely,

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

TOTAL COMPLIANCE

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Wolcott
§173.185(c)(3)
19-0092

June 26, 2019

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

Attention: T. Glenn Foster, Chief, Regulatory Review and Reinvention

Re: Interpretation of lithium batteries contained in equipment

Dear Mr. Foster:

We are seeking your interpretation or confirmation on the definition of “Equipment” as used in Lithium Ion Batteries Contained in Equipment.

Background:

Our client manufactures equipment that is powered by a removable 16.2 Wh lithium ion battery power source. The removable power source consists of two type A lithium ion batteries that are attached to a printed circuit board (PCB), and two safety circuits, all of which is completely enclosed within a solid plastic housing. Based on 49 CFR 173.185(c)(3) our client believes that the PCB would be considered “equipment” and the complete power source (enclosed lithium ion batteries attached to a PCB), when shipped alone, should be shipped as UN3481, Lithium ion batteries contained in equipment:

49 CFR Part 173.185(c)(3)

Each package must display the lithium battery mark except when a package contains button cell batteries installed in equipment (including circuit boards), or no more than four lithium cells or two lithium batteries contained in equipment, where there are not more than two packages in the consignment.

Our client believes that this configuration of enclosed lithium ion batteries attached to a PCB with safety circuits provides the same level of transportation safety that is achieved through the installation of lithium batteries directly into a complete piece of equipment, with the equipment itself containing the PCB and safety circuits.

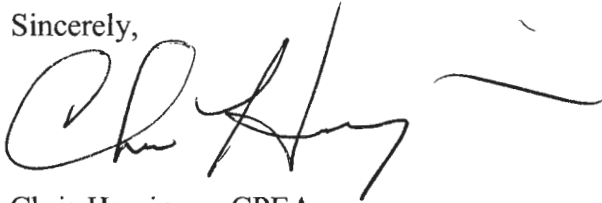
We are asking for your clarification as to whether my client’s interpretation is correct.

Please provide a response as to whether my client's interpretation of the identification number (UN3481) and proper shipping name (Lithium ion batteries contained in equipment) are correct for the power supply, which includes the circuit board with the attached lithium ion batteries, when shipped alone.

If you have any questions or need any additional information, please feel free to contact me at 614-554-0343, or email me at chris@total-compliance.com.

Thank you for your time regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chris Heminger', with a long horizontal flourish extending to the right.

Chris Heminger, CPEA
Managing Partner
Total Compliance LLC