



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

JUL 23 2018

Brian Wiedow
Regulatory Specialist
Preco, Inc.
500 Laser Drive
Somerset, WI 54025

Reference No. 17-0101

Dear Mr. Wiedow:

This letter is in response to your September 1, 2017, email and subsequent phone and email conversations requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the testing of lithium ion batteries in accordance with Part III, Sub-section 38.3 of the United Nations (UN) Manual of Tests and Criteria. In your email and subsequent phone and email conversations, you describe the following scenario:

- Your company receives lithium ion cells from a supplier. These cells are of a type that has passed applicable UN 38.3 tests.
- Your company uses the lithium ion cells to build an assembly. The lithium ion cells installed, in either series or parallel, are electrically connected. This configuration has not been UN 38.3 tested.
- The assembly is placed in a container and then shipped to the customer, where they install control boards and terminals in the assembly to complete the lithium ion battery. This completed battery has passed UN 38.3 testing.

Specifically, you ask if the assembled cells must undergo UN 38.3 testing before being shipped to the customer.

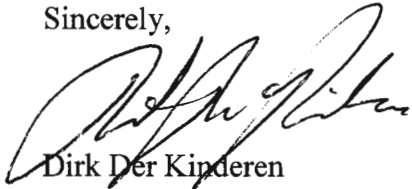
The answer is yes. In accordance with Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria, a battery is defined as “two or more cells which are electrically connected together and fitted with devices necessary for use, for example, case, terminals, marking and protective devices.” Based on the information provided in your email, it is the opinion of this Office that because the cell assembly shipped to the customer is electrically connected and contains some components of a battery, it meets the general definition of a battery, even though the customer fits the assembly with additional devices at a later stage to complete the battery.

This partial battery must pass the appropriate tests, unless meeting an exception from UN 38.3 testing in § 173.185, such as § 173.185(e) for low production runs and prototype batteries. If it cannot pass the appropriate tests or meet an exception, you may wish to apply for a special

permit in accordance with Part 107, Subpart B. Please note that the shipment to the customer must also comply with all applicable packaging requirements for 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 "Dirk Der Kinderen". The signature is fluid and cursive, with a large initial "D".

Dirk Der Kinderen
Chief, Standards Development
Standards and Rulemaking Division

Geller
\$173.22
Shippers Responsibility
17-0101

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Friday, September 01, 2017 5:03 PM
To: Hazmat Interps
Subject: FW: Lithium Ion shipments

Hi Alice,

Please submit this as a letter of interpretation. Let me know if you have any questions.

Thanks,
Jodi

From: Brian Wiedow [mailto:bwiedow@precoinc.com]
Sent: Friday, September 01, 2017 11:25 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: Brian Wiedow <bwiedow@precoinc.com>
Subject: Lithium Ion shipments

Hello,

On August 31, 2017 Brian Wiedow from Preco, Inc. had a phone conversation with Eamonn at the US DOT Hazardous Materials Information Center. The following is a summary of the conversation.

Preco receives lithium ion cells from the supplier. These cells have passed UN 38.3 testing.

Preco builds an assembly using these cells. This assembly is placed in to the container in which it will be used in service. Preco ships this assembly to the customer.

The customer opens the container and adds devices and terminals to the assembly to make a completed battery. This finished battery has passed UN 38.3 testing.

From our conversation, the assembly created at Preco from individual cells is not a battery according to the definition in UN 38.3 testing standard and does not need to be tested. Preco's position is since we are using cells that have passed testing in our assembly, and the assembly is then later made into a battery that has passed testing, our assembly can be shipped without it being a hazard or the shipment being a violation of UN 38.3.

Can you please provide a response that our interpretation documented here is correct, or provide clarification as needed?

We appreciate your assistance. If you need further details please let me know.


Thanks,
Brian

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www.precopinc.com

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