



July 16, 2025

Mr. Matthew Nickels  
Acting Director, Standards and Rulemaking Division  
Pipeline and Hazardous Materials Safety Administration  
Attn: PHH-10  
U.S. Department of Transportation  
East Building, 1200 New Jersey Ave., SE  
Washington, D.C. 20590-0001  
Submitted: Via Email  
cc: [infocntr@dot.gov](mailto:infocntr@dot.gov)

Dear Mr. Nickels,

Currie Associates, Inc. requests a formal letter of interpretation regarding the requirement for packing smaller lithium batteries when contained in equipment. Specifically, we want to confirm our understanding of the term “strong rigid outer packaging” and the necessity to use such packaging when the cell or battery is installed in equipment that provides “equivalent protection”.

**Strong Outer Packaging**

49 CFR, § 173.185(c)(2) states:

*“Packaging. Lithium cells and batteries must be packed in inner packagings that completely enclose the cell or battery then placed in a strong rigid outer package unless the cell or battery is contained in equipment and is afforded equivalent protection by the equipment in which it is contained.”*

The term “strong outer packaging” is defined in § 171.8 to mean packaging that is “sturdy, durable, and constructed so that it will retain its contents under normal conditions of transport.” PHMSA does not specifically identify types of strong outer packaging, and simply defines “packaging” in § 171.8 as “a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this subchapter.”

Therefore, we believe that strong outer packaging would include drums, boxes, and other packaging types that will retain the goods being transported and protect the material contained within. If through demonstration a shipper can provide evidence that other packaging, including fiber envelopes, are sturdy, durable, and constructed to retain its contents under normal conditions of transport, they may be considered strong outer packagings.

**Rigid Packaging**

PHMSA does not provide a definition of the term “rigid” in the Hazardous Materials Regulations. However, it is used in several locations. To further understand the use of the term, we ask the following questions:

- Would PHMSA consider a packaging rigid if it does not permanently deform with normal conditions of transport, and if it deforms with pressure applied, will generally revert to its original form once the pressure is removed?
- Must the outer packaging provide the primary rigidity, or may the use of an inner packaging support the outer packaging to prevent bending or deformation?

**Lithium Batteries Contained in Equipment**

The provisions of § 173.185(c)(2) exempt the requirement of a strong, rigid outer packaging if the cells or batteries are contained in equipment and the equipment itself provides equivalent protection. The size of the equipment is not specifically noted, but it is implied that if equipment is relatively small compared to a standard parcel size, that the equipment may need to be packed in some form of packaging. If a cell or battery is contained within equipment that would protect the cell/battery in transport (i.e. fully enclosed, protection against short circuit and accidental activation, capable of surviving normal conditions of transport) but is small, is strong rigid outer packaging required? Or may the equipment be placed in strong outer packaging that is not rigid?

Currie Associates appreciates your timely review of this interpretation request and we look forward to hearing from you soon.

Sincerely,



Tom Ferguson  
President  
Currie Associates, Inc.  
[www.currieassociates.com](http://www.currieassociates.com)  
[tom@currieassociates.com](mailto:tom@currieassociates.com)  
O: 518-761-0668