



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

JAN 23 2018

Shawn Colborg
Sandia National Laboratories
1515 Eubank SE
Albuquerque, NM 87123

Reference No. 17-0127

Dear Mr. Colborg:

This letter is in response to your November 15, 2017, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to lithium batteries. You explain that your company produces a non-UN tested prototype lithium battery contained in equipment. While the lithium battery weighs less than 12 kg (26.5 pounds), the equipment in which the lithium battery will be contained weighs more than 12 kg (26.5 pounds). Specifically, you ask if the prototype lithium battery contained in equipment meets the requirements of § 173.185(e)(4), which allow shipment in a strong outer packaging, or if the completed package must meet the requirements of § 173.185(e)(3).

Based on the information you provided, you would not be permitted to pack the equipment in strong outer packagings, in protective enclosures, or on pallets or other handling devices and must instead comply with UN performance packaging requirements. The 12 kg (26.5 pounds) or more exception in § 173.185(e)(4) applies to the battery only and not the combined weight of the battery and the equipment.

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

Sincerely,

Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

Baker
§173.185(e)(4)
Batteries
17-0127

Dodd, Alice (PHMSA)

From: Jones, Breanna CTR (PHMSA)
Sent: Friday, November 24, 2017 4:33 PM
To: Hazmat Interps
Subject: FW: Request for interpretation
Attachments: 49 CFR 173.185(e)(4) interpr.pdf

Hello,

Please see the attached interp request.

Thanks,

-Breanna

From: Colborg, Shawn P [<mailto:spcolbo@sandia.gov>]
Sent: Wednesday, November 22, 2017 3:55 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: FW: Request for interpretation

My physical address is:

Sandia National Laboratories
Shawn Colborg
1515 Eubank SE
Albuquerque, NM 87123

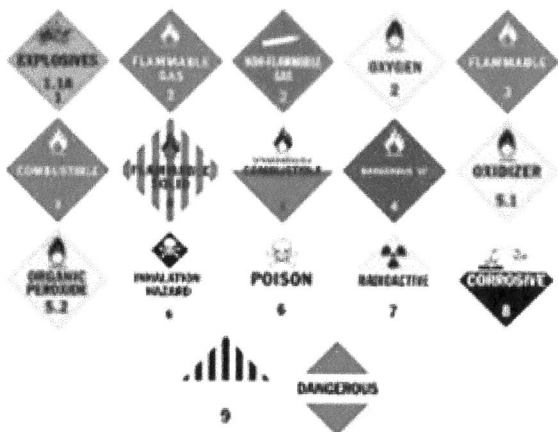
Shawn Colborg
Hazardous Material Transportation

From: Colborg, Shawn P
Sent: Wednesday, November 15, 2017 10:07 AM
To: 'infocntr@dot.gov' <infocntr@dot.gov>
Subject: Request for interpretation

Please see attached for the requested interpretation.

Thanks

SHAWN COLBORG
HAZARDOUS MATERIALS SHIPPING
SANDIA NATIONAL LABORATORIES
505-844-3196
SPCOLBO@SANDIA.GOV





Sandia National Laboratories

Operated for the U.S. Department of Energy by
Sandia Corporation

Albuquerque, New Mexico 87185

Date: November 14, 2017

To: INFOCNTR (PHMSA)

Subject: Request for formal interpretation of 49 CFR 173.185(e)(4)

Dear To whom it may concern:

Sandia National Laboratories (SNL) is seeking clarification concerning 49 CFR 173.185(e)(4) "Low production runs and prototypes" of lithium cells and batteries.

SNL routinely makes prototype (non-UN tested) lithium batteries for research and testing with most of them contained in a piece of equipment that the battery powers. Some of the batteries that we make or that we are testing on behalf of a 3rd party vender weighs less than the 12 kg (26.5 lbs.) as stated in 173.185(e)(4). My question is this: Even though the battery itself weighs less than 12 kg but that battery is mounted ("contained in equipment") in the equipment that it will be supplying the power to will be well over the 12 kg weight. Would that equipment containing the prototype battery that weighs greater than the 12 kg, meet this provision and would be allowed to be shipped in strong outer packaging instead of having to meet the requirements in 173.185(e)(3)(i) and (ii)?

(e) Low production runs and prototypes. Low production runs (*i.e.*, annual production runs consisting of not more than 100 lithium cells or batteries), or prototype lithium cells or batteries, including equipment transported for purposes of testing, are excepted from the testing and record keeping requirements of paragraph (a) of this section, provided: [173.185(e)]

(4) Lithium batteries, including lithium batteries contained in equipment, that weigh 12 kg (26.5 pounds) or more and have a strong, impact-resistant outer casing or assemblies of such batteries, may be packed in strong outer packagings, in protective enclosures (for example, in fully enclosed or wooden slatted crates), or on pallets or other handling devices, instead of packages meeting the UN performance packaging requirements in paragraphs (b)(3)(ii) and (iii) of this section. The battery or battery assembly must be secured to prevent inadvertent movement, and the terminals may not support the weight of other superimposed elements; [173.185(e)(4)]

Sincerely,

Shawn P. Colborg
Sandia National Laboratories
Hazard Material Transportation
spcolbo@sandia.gov
(505) 844-3196