



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

Officer Daniel Voelker
Arizona Department of Public Safety
2102 W. Encanto Blvd., Mail Drop 4011
Phoenix, AZ 85009

APR 24 2015

Reference No. 15-0025

Dear Officer Voelker:

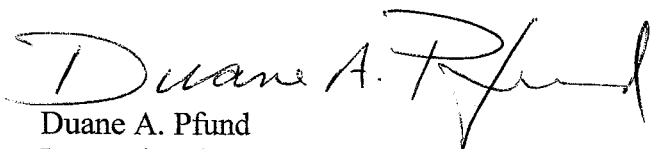
This responds to your February 2, 2015 email regarding the transportation requirements for wet (electric storage) batteries in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you request clarification of the loading and bracing requirements prescribed in § 173.159(e)(2), which require batteries to be loaded or braced so as to prevent damage and short circuits in transit. You describe and provide photographs for two similar scenarios where wet batteries are loaded into an enclosed box trailer. You state that all of the batteries are wrapped on to pallets but that you cannot find evidence of the batteries being further secured to the pallets. The pallets are then loaded in the box trailer using an "I" formation. This formation has two pallets side by side at the head of the trailer, followed by a single pallet, then two more pallets side by side. This pattern repeats from the front of the trailer to the rear of the trailer. You note that in the areas where there is a single pallet that the operator is not securing the pallet to the trailer in any way making it possible for the center pallets to shift or fall from side to side. The second scenario differs from the above only in that the pallets do not completely fill the length of the trailer and end around ten to fifteen feet from the rear of the trailer. Again, you note you are not finding any form of securement for the center pallets or any way to prevent the rear pallets from moving or falling towards the rear of the trailer.

It is the opinion of this Office that the method of loading or bracing the palletized batteries described in your letter may be used to satisfy § 173.159(e)(2) so long as no damage or short circuit may occur in transit. However, this requirement is a performance standard, meaning that the carrier would need to ensure that the configuration would preclude shifting that could cause damage or short circuit. Motor carriers may be subject to additional requirements to protect against shifting and falling of cargo under the Federal Motor Carrier Safety Regulations in 49 CFR Part 393, Subpart I.

Please note that except as otherwise provided in the HMR, the requirements of §177.834(a) provide general requirements for securing packages in a motor vehicle.

I trust this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, reading "Duane A. Pfund". The signature is written in a cursive style with a large, looped "D" and a long, sweeping "P".

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Dodd, Alice (PHMSA)

Wiener
§173.159e2
Batteries
15-0025

From: Ciccarone, Michael CTR (PHMSA)
Sent: Monday, February 02, 2015 11:15 AM
To: Hazmat Interps
Subject: FW: Request for Interpretation
Attachments: Additional_battery_photos.zip;
Fw__Clarification_on_wet_batteries_and_load_securement.zip

Shante/Alice,

Please submit this for formal letter of interpretation.

Thanks,

Mike

From: Daniel L Voelker [<mailto:DVOELKER@AZDPS.GOV>]
Sent: Saturday, January 31, 2015 6:23 PM
To: INFOCNTR (PHMSA)
Subject: Request for Interpretation

To: PHEMSA's Office of the Chief Counsel
From: Officer Daniel Voelker
Arizona Department of Public Safety
2102 W Encanto BLVD Mail Drop 4011
Phoenix, AZ 85009
Subject: Request for Interpretation Reference 173.159e2

Are agency is running into carriers that are attempting to use the wet battery exemptions in the following two scenarios. It is the opinion of our agency, several subject matter experts, and members of the Chief Counsel Office that these carriers would not qualified for the battery exemptions when they are operating in the manor that we have found them. We would like your office to evaluate the two scenarios and provide guidance. Photographs have been attached to this message showing the scenarios as we have found them.

Scenario #1:

The carrier is using an enclosed box trailer. All of the batteries are wrapped into pallets and we are not finding securement issues as it pertains to the batteries being secured to the pallets. The pallets are loaded into the box trailers using an "I" formation. This formation has two pallets side by side at the head of the trailer, followed by a single pallet, then two more pallets side by side. This pattern repeats from the front of the trailer until it reaches the rear of the trailer. In the areas where there is a single pallet the company is not securing the pallet to the trailer in any way. This makes it possible for the center pallets to shift or fall from side to side.

Scenario #2:

The carrier is using an enclosed box trailer. All of the batteries are wrapped into pallets and we are not finding securement issues as it pertains to the batteries being secured to the pallets. The pallets are loaded into the box trailers using an "I" formation. This formation has two pallets side by side at the head of the trailer, followed by a single pallet, then two more pallets side by side. This pattern repeats from the front of the trailer until it stops around 10 to 15 feet from the rear of the trailer. We are again not finding any form of securement for the center pallets and we are also not finding any way to prevent the rear pallets from moving or falling towards the rear of the trailer.

During routine inspections we have found pallets of hazardous materials (both batteries and others) shipped in similar manors to the above listed scenarios. In several instances these pallets have fell over causing damage to the packages of hazardous materials.

Thank you for taking your time to clarify this issue for our agency.

Sincerely,

Officer Daniel Voelker
Arizona Department of Public Safety
Hazardous Materials Response Unit
(928) 203-6772

