



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

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

JUL 06 2009

Trooper K.S. Herring
North Carolina State Highway Patrol
2820 E. 10th Street
Greenville, NC 27858

Ref. No. 09-0115

Dear Trooper Herring:

This responds to your April 28, 2009 letter requesting clarification of requirements applicable to the transportation of wet batteries under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180). Specifically, you ask for clarification regarding our letter dated June 3, 2008 (Ref. No. 08–0067) to Mr. Dan Lane, of the Interstate Battery System of America, Inc., concerning loading and bracing of wet batteries in so-called “Mickey Body” trucks.

In accordance with § 173.159(e)(2), wet electric storage batteries must be loaded or braced so as to prevent damage and short circuits in transit. A Mickey Body truck is designed so that the shelves in the compartments of the truck slope downward from the exterior toward the interior of the vehicle, and the shelves are covered with a slip-resistant surface. Our June 3, 2008 letter was intended to clarify that the loading methods described by Mr. Lane (i.e., the batteries are not stacked and, if the compartment in which the batteries are loaded is not full, the batteries are placed tightly to the front and interior of the compartment) combined with the slip-resistant surface and the downward slope of the shelving used in the trucks sufficiently provides for the achievement of the performance standard in § 173.159(e)(2). The slip-resistant surface installed in a Mickey Body truck need not meet the definition of “friction mat” in 49 CFR § 393.5.

Please be aware that transportation in Mickey Body trucks using the loading method addressed in our June 3, 2008 letter is one way to satisfy the performance standard in § 173.159(e)(2). There are a number of other loading methods that will satisfy the performance standard, including the use of non-conductive caps that entirely cover the terminals; utilizing cardboard, paper, wood, or similar materials to separate the batteries and cover the terminals; the use of friction mats or wooden pallets to secure the batteries against movement; or a combination of measures that will prevent damage and short circuits in transit. Batteries may be stacked provided they are secured in a manner that prevents damage and short circuits in transit.

If evidence indicates that batteries are damaged or short circuited or turn over and leak while in transport, then the performance standard of § 173.159(e)(2) is not achieved no matter what vehicle or loading method is used. If such evidence is found, the shipper or carrier may be subject to appropriate enforcement action. Note that shipments transported by highway or rail that fully comply with the requirements in § 173.159(e) are not subject to any other requirements of the HMR.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

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

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards



Beverly Eaves Perdue
Governor
Reuben F. Young
Secretary
Walter J. Wilson, Jr.
Colonel

North Carolina
Department of Crime Control and Public Safety
State Highway Patrol

Location:
512 N. Salisbury Street
Raleigh, NC 27604
(919) 733-7952

Mailing Address:
4702 Mail Service Center
Raleigh, NC 27699-4702

PHMSA Office of Hazardous Materials Standards
East Building
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

Nickels
\$ 177.834
\$ 173.159 (e)
Batteries
09-0115

28 April 2009

Associate Administrator,

This letter is in response to your June 3, 2008 letter (Ref. No. 08-0067) concerning the requirements of Title 49 CFR 173.159(e) (1-4). Specifically our enforcement personnel have questions regarding the use of the "Mickey Body" trucks to transport wet batteries. For the purpose of this letter all questions posed are pertaining to the transportation of wet batteries in the "Mickey Body" truck. The letter states that the batteries are required to be placed on a "slip-resistant" covered surface. The definition of a slip-resistant surface can vary. Does the slip-resistant surface used have to be a manufactured "friction mat" as defined in FMCSR 393.5, or does a wooden fork-lift pallet suffice?

The second issue is that the letter states that compliance is achieved if the majority of the batteries are wrapped in plastic, placed tightly to the front and interior of each compartment that is less-than-full, and the batteries are not stacked. The term "majority" leaves a gray area as to whether the carrier is in compliance or not. Many new wet batteries come from the factory with and without plastic wrapping for protection. For roadside inspection purposes, would a majority be defined as more than one half? It is understood that the batteries must be placed tightly to the front and interior of each compartment that is less-than-full and not stacked. However, if the batteries are not placed tightly to the front and interior (visible space between each) or are stacked, does the carrier lose the CFR 173.159 exception? If stacked, does the top stack have to comply with CFR 177.834, or do both the bottom and top stack have to conform to CFR 177.834? CFR 173.159(e) (2) states: "*The batteries must be loaded or braced so as to prevent damage and short circuits in transit (e.g. by the use of non-conductive caps that entirely cover the terminals)*". Does a carrier that utilizes cardboard, paper, wood, or similar material placed between the stacks of batteries with no other form of battery terminal protection meet the requirement of CFR 173.159(e)(2)? Does CFR 173.159(e) (2) require each individual battery terminal to be covered to prevent short circuits during transit? Thank you for your time and assistance in this matter.



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On my honor, I will never betray my badge, my integrity, my character, or the public trust. I will always have the courage to hold myself and others accountable for our actions. I will always uphold the constitution, my community, and the agency I serve.

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Trp. K.S. Herring
North Carolina State Highway Patrol
Troop "A" MCSAP
2820 E. 10th St.
Greenville, N.C. 27858
252.917.7309