



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

1200 New Jersey Ave, SE
Washington, D.C. 20590

MAR 22 2011

Major Christopher K. Minter
Commander, Office of Field Operations
Ohio State Highway Patrol
1970 West Broad Street
P.O. Box 182074
Columbus, OH 43218-2081

Ref. No.: 10-0021

Dear Major Minter:

This is in response to your January 26, 2010 letter requesting clarification of requirements in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to battery shipments. According to your letter, the batteries in question are secured to a pallet with stretch-wrap. The batteries are stacked on top of each other in rows, and cardboard is placed between each tier to prevent short circuits. Specifically, you ask about appropriate methods for protecting batteries against short circuits during transportation.

Shipments of electric storage batteries are excepted from the HMR if the provisions found in § 173.159(e)(1)-(4) are met. 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. There are a number of 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.

I hope this answers your inquiry. If you have further questions, please do not hesitate to contact this office.

Sincerely,

Ben Supko
Acting Chief, Standards Development Branch
Standards and Rulemaking Division

- Administration
- Bureau of Motor Vehicles
- Emergency Management Agency
- Emergency Medical Services
- Office of Criminal Justice Services
- Ohio Homeland Security
- Ohio Investigative Unit
- Ohio State Highway Patrol



Ted Strickland, Governor
Cathy Collins-Taylor, Director
Colonel David W. Dicken
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January 26, 2010

United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Standards
Attn: PHH-10
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590-0001

Leary
§173.159
Batteries
10-0021

Dear Sir or Madam:

On July 20, 2009, an Ohio Motor Carrier Enforcement inspector stopped a commercial motor carrier straight truck for a commercial motor vehicle inspection. The vehicle was loaded with used batteries and the carrier was acting as the shipper of the batteries and claimed the battery exception under 49 Code of Federal Regulations §173.159. Section 173.159 states (a) Electric storage batteries, containing electrolyte acid or alkaline corrosive battery fluid, must be completely protected so that short circuits will be prevented (e.g., by the use of non-conductive caps that entirely cover the terminals).

The carrier/shipper had several pallets loaded with used batteries. Each pallet of batteries had cardboard placed between each tier of batteries; the batteries had shrink wrap applied around the batteries to secure them to the pallets. The only protection from preventing the battery electrodes from coming in contact with other batteries was the cardboard.

We are requesting an interpretation to the requirements of 173.159(a). Did the cardboard the carrier/shipper use to separate the layers of batteries meet the exception?

Attached are photos of the load of batteries at the time of the inspection.

Sincerely,

Major C. K. Minter

Major Christopher K. Minter
Commander
Office of Field Operations
Ohio State Highway Patrol

Encl

CKM/AJS/JRF 173.159 Interpretation Request 012610

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GROSS WT. 33,000
TARE 16,600







