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

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

JUL 30 2010

Mr. Robert N. Steinwurtzel
Bingham McCutchen LLP
2020 K St., NW
Washington, DC 20006-1806

Ref. No. 10-0129

Dear Mr. Steinwurtzel:

This responds to your June 14, 2010 letter regarding the transportation requirements for wet (electric storage) batteries under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You ask for clarification of the requirements for exception from regulation as Class 8 corrosive materials for wet batteries under § 173.159(e) of the HMR. Specifically, you ask for clarification of procedures that satisfy the requirement of § 173.159(e)(2) that batteries must be loaded or braced to prevent damage and short circuits in transit.

According to your letter, the Battery Council International (BCI) has published procedures on how to package used wet batteries on pallets (see *Used Battery Stack and Wrap Flyer* available at www.batterycouncil.org). The procedures include:

(1) Pallet specifications (e.g., a maximum of three layers of batteries per pallet);
(2) Instruction to place cardboard (waffleboard) between the pallet and layers of batteries to prevent damage, short circuits, and sliding;
(3) Instruction to orient battery terminals in such a manner to prevent short circuits; and
(4) Instruction to stretchwrap the batteries to the pallet to secure the batteries and prevent them from falling off the pallet.

Additionally, you indicate an industry practice of loading a motor vehicle by placing pallets tightly against each other front to back and using standard load locks and/or straps at the front and rear of the load to secure the pallets from shifting forward or rearward on the motor vehicle. Depending on the configuration of the pallets, there may be void space between the pallets and the walls of the motor vehicle trailer. You request clarification that the combination of the BCI packaging procedures and industry loading practice satisfies the requirement of § 173.159(e)(2).

It is the opinion of this Office that the method of loading the wet batteries on a motor vehicle described in your letter satisfies the requirement of § 173.159(e)(2) so long as no damage or short circuit occurs in transit. However, this requirement is a performance standard, so that if the batteries are capable of shifting to the extent of causing damage or short circuit, this method of loading would not comply with § 173.159(e)(2).

Note that 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.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

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§173.159
Batteries
10-0129

BINGHAM

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June 14, 2010

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Mr. Edward T. Mazzullo
Director, Office of Hazardous Materials Standards
U.S. DOT/PHMSA (PHH-10)
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington, DC 20590

Re: Transportation of Wet Batteries Pursuant to 49 C.F.R.§ 173.159(e)(2)

Dear Mr. Mazzullo:

On behalf of the Association of Battery Recyclers, Inc. (ABR), this letter requests clarification of the requirements for transportation of wet batteries under the Hazardous Materials Regulations.

The ABR represents the lead recycling industry including all the secondary lead refining and smelting capacity in the United States. In addition to secondary lead smelters, ABR members include battery manufacturers and other lead users such as solder and chemical manufacturers. Spent lead-acid batteries represent the principal feedstock for the smelter members; therefore, the application and interpretation of rules relating to the shipment of such batteries is critical to the industry.

Specifically, I am writing with respect to the exception found in 49 C.F.R. § 173.159(e) (2) which states that "batteries must be loaded **or** braced so as to prevent damage and short circuits in transit." Notwithstanding the clear language of the exception, we have learned that one state interprets the regulation to require that batteries be loaded **and** braced. This state requires all voids inside the truck to be filled with empty pallets, no matter how well the load of batteries is packaged. Apparently, the state is relying upon Interpretation # 01-00S4R where it states in part: "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 card board, 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." The ABR understands this interpretation to mean that the use of additional wooden pallets is only one example of how batteries can be secured to satisfy the exception. It is also the ABR's understanding that this interpretation assumes the load is not already packaged so as to

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prevent damage and short circuits in transit and thus would not meet the exception of 173.159(e).

The Battery Council International (BCI), an international trade association that represents manufacturers of lead-acid batteries, has published instructions on how to package batteries on pallets.

1. The Department of Transportation (DOT) specifies that junk batteries are to be stacked on pallets in good condition. A piece of card board must be placed on an empty pallet before stacking the first layer of batteries.

2. A piece of card board must be placed between each layer and on top. Batteries should not be stacked over three layers high.

3. Arrange batteries so that terminals cannot touch and lead to short circuit.

4. Load batteries two layers high, then shrink wrap. Wrap tightly three to four times around, making sure to catch top of pallet to help anchor load.

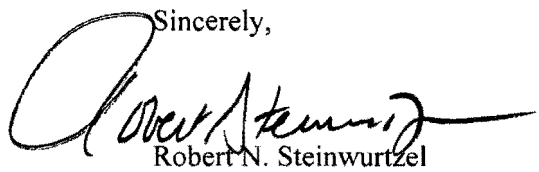
5. Load third layer and place card board on top. Then shrink wrap entire package wrapping tightly an additional three to four times, over lapping bottom layers including the pallet itself.

BCI submitted the above procedures to your office in a letter dated October 6, 2009. Your office responded to that correspondence in a letter dated January 10, 2010, but that interpretative letter did not explicitly approve the above procedures. In your opinion, does the above method meet the performance standard for securing batteries to wooden pallets in order to satisfy the language of the exception?

After securing the batteries in the above manner, it is industry practice to place the pallets tightly against each other, and then use standard load locks and or straps at the front and rear of the load to secure pallets from shifting forward or rearward. That is, if the batteries are loaded to avoid damage during transit or short circuit, then there is no obligation to place wooden pallets to fill the voids that could exist between the loads or may otherwise exist inside the truck. In your opinion does this load meet the performance standard to satisfy the exception of Section 173.159 (e)?

Your immediate response to this inquiry is greatly appreciated.

Sincerely,



Robert N. Steinwurtzel
Counsel to the Association of
Battery Recyclers, Inc.

cc: ABR Board of Directors