



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

JUL 13 2004

Mr. Christopher R. Sharp  
Technical Consultant  
RCS, Inc.-Ohio  
950 Taylor Station Road, Suite M  
Gahanna, OH 43230

Ref No.: 04-0157

Dear Mr. Sharp:

This is in response to your letter dated June 9, 2004 requesting clarification of the wet battery exception found in § 173.159(e) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if two pallets containing two wet batteries each, that otherwise meet the exception found in § 173.159(e)(1)-(4), could use that exception if placed in a transport vehicle with four battery powered forklifts. You state that the batteries installed in the forklifts are identical to the palletized batteries and that the forklifts contain no other hazardous materials and are excepted from the HMR under § 173.220(c).

Shipments of electric storage batteries are excepted from the HMR if the provisions found in § 173.159(e)(1)-(4) are met. Paragraph (1) of § 173.159(e) states that no other hazardous materials may be transported in the same vehicle. The definition of a hazardous material, found in § 171.8, includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (HMT; § 172.101), and materials that meet the defining criteria for hazard classes and divisions in Part 173, Subchapter C. The definition of a hazardous material does not exclude materials that meet one or more of the defining criteria but are being transported under exceptions. Therefore, a forklift that is excepted from the requirements of the HMR under § 173.220(c) would meet the definition of a hazardous material.

A battery powered forklift is classified as "Battery-powered vehicle" or "Battery-powered equipment" and assigned to Hazard Class 9. Disconnected or uninstalled wet batteries are classified as "Batteries, wet, filled with acid" or "Batteries, wet, filled with alkali, electric storage" and assigned to Hazard Class 8. Therefore, the transport vehicle would contain two different hazardous materials, the first being a Class 9 material and the second a Class 8 material. To use the wet battery exception in § 173.159(e), you must remove the class 9 hazardous material from the transport vehicle. This can be accomplished by:

1. Loading the batteries and battery powered forklifts on separate transport vehicles;



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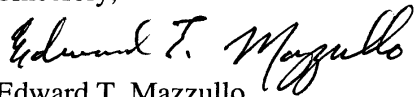
173.159  
173.220

2. Disconnecting the batteries that are installed in the forklifts; or
3. Uninstalling the batteries from the forklifts.

If you choose to disconnect the batteries and leave them in the battery carriage of the forklifts, you must ensure that they are protected from short circuits and damage while in transit. If you decide to uninstall the batteries from the forklifts then, as stated in § 173.220(c), you must package them in accordance with § 173.159.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,



Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards



Supko  
§173.159  
§173.220  
Batteries  
04-0157



June 9, 2004

United States Department of Transportation  
Research and Special Programs Administration  
400 7th Street SW  
Washington D.C. 20590-0001

Attn: Edward Mazzullo – Director, Office of Hazardous Materials Standards

**RE: Letter of Interpretation under the exception of wet batteries and forklifts containing wet batteries from Hazardous Material Regulations**

Dear Mr. Mazzullo,

The following requests a letter of interpretation regarding the application of the exception of wet batteries from the Hazardous Material Regulations under 49 CFR 173.159 and the exception of industrial trucks containing wet batteries from the Hazardous Materials regulations under 49 CFR 173.220.

The Hazardous Materials Regulations except wet batteries from DOT requirements under 49 CFR 173.159.

*Electric storage batteries containing electrolyte or corrosive battery fluid are not subject to the requirements of this subchapter for transportation by highway or rail if all of the following requirements are met:*

- (1) No other hazardous materials may be transported in the same vehicle,*
- (2) The batteries must be loaded or braced so as to prevent damage and short circuits in transit,*
- (3) Any other material loaded in the same vehicle must be blocked, braced, or otherwise secured to prevent contact with or damage to the batteries, and*
- (4) The transport vehicle may not carry material shipped by any person other than the shipper of the batteries.*

The Hazardous Materials Regulations except industrial trucks containing wet batteries under 49 CFR 173.220.

*Battery powered or installed. Batteries must be securely installed, and wet batteries fastened in an upright position. Batteries must be protected against short circuits and leakage or removed and packaged separately under §173.159. Battery powered vehicles, machinery or equipment including battery powered wheelchairs and mobility aids are excepted from the requirements of this subchapter when transported by rail, highway or vessel. Items of equipment containing hazardous materials, fire extinguishers, compressed gas accumulators, safety devices and other hazardous materials which are integral*



*components of the motor vehicle, engine or mechanical equipment and are necessary for the operation of the vehicle, engine or equipment, or for the safety of its operator or passengers must be securely installed in the motor vehicle, engine or mechanical equipment. Such items are not otherwise subject to the requirements of this subchapter.*

RCS Inc.'s interpretation is as follows:

A load containing four forklifts with wet batteries still inside and four wet batteries on two pallets is not subject to DOT requirements. The wet batteries on the pallets are replacements for the batteries inside the forklifts. The batteries in the forklifts and the batteries on the pallet are identical. The forklifts containing the wet batteries are excepted from DOT requirements under 49 CFR 173.220. The individual batteries are excepted from DOT requirements as long as they satisfy all four of the requirements set forth by 49 CFR 173.159(e)(1-4). The individual batteries are loaded and braced as to prevent damage and short circuits in transit. The load does not contain any additional materials. The batteries inside of the forklifts are identical to the individual batteries, therefore, the load contains only one hazardous material. The individual batteries would be excepted from DOT requirements. Since the forklifts containing wet batteries are excepted and the individual batteries are excepted the entire load is excepted from DOT requirements.

Upon determination and completion of a letter of interpretation, please reply to:

Christopher R. Sharp  
Technical Consultant  
RCS, Inc.-Ohio  
950 Taylor Station Road, Suite M  
Gahanna, OH 43230  
614-552-8530 x 32

Your cooperation and timeliness are greatly appreciated.

Sincerely,

Christopher R. Sharp  
Technical Consultant  
RCS, Inc.-Ohio  
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