



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

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Mr. George Kerchner  
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Consulting  
The CapAnalysis Group, LLC  
1299 Pennsylvania Ave., NW  
Washington, DC 2004-2402

Ref. No.: 04-0150

Dear Mr. Kerchner:

This responds to your e-mail and our subsequent meeting with you and representatives from the battery industry concerning the transportation of "Battery fluid, acid, 8, UN 2796, PG II" with dry (new, empty) batteries under the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180).

Your questions are paraphrased and answered below:

Q1. May "Battery fluid, acid, 8, UN 2796, PG II" be offered as a limited quantity when packed in a combination packaging conforming to the PG II performance requirements and further overpacked (including shrink-wrapped) with a dry battery in accordance with § 173.25?

A1. The answer is yes, provided the limited quantity provisions in § 173.154 are met. Section 173.154(b)(i) limits the net capacity in each inner packaging to a maximum of 1 L (0.3 gal) for Class 8, PG II liquids. The limited quantity package may be overpacked, including shrink wrapped, with the dry battery in accordance with the provisions in § 173.25. Limited quantity shipments are excepted from specification packaging when packaged in a combination packaging according to §173.154.

A limited quantity which conforms to the provisions of §173.154(b) and is a "consumer commodity" as defined in §171.8 may be renamed "Consumer commodity" and reclassified as "ORM-D". The Consumer commodity package containing the battery fluid, acid may be overpacked with the dry battery in accordance with § 173.25. Under the limited quantity and the consumer commodity provisions, the battery fluid and the dry battery may not be packaged together in the same outer combination packaging.

Should the battery fluid and the dry battery be packaged together in the same outer combination package, the provisions of § 173.159 (g) or (h) apply. See Special provision N6.

Q2. Regarding the sample brown 4G fiberboard box imprinted with the Class 8 (corrosive) label, is the label in conformance with the HMR?

A2. The answer is no. The background of a Class 8 label is required to be white in the top half and black in the lower half. "White" as defined by the American College Dictionary is an achromatic color of maximum lightness; as new snow. Further alterations to the symbol, such as the speckles shown on the hand depicted on the label, are not authorized. See § 172.407(b)(1).

Q3. Is it permissible to transport "Batteries, wet, filled with acid, 8, UN 2794, PG III" and "Battery fluid, acid, 8, UN 2796, PG II" on the same transport vehicle under the provisions in § 173.159(e)?

A3. The answer is no. Electric storage batteries containing electrolyte or corrosive battery fluid are excepted from the HMR when transported in accordance with the provisions specified in § 173.159(e). The condition specified in § 173.159(e)(1) states that no other hazardous materials may be transported on the same vehicle. Therefore, with the exception of the batteries, no hazardous materials, including corrosive battery fluid, may be transported on the vehicle.

Q4. Section 178.601(g) describes selective testing of packagings that differ only in minor respects from the tested packaging. If we have a tested combination package, can we reduce the size or the number of the inner packagings in accordance with Variation 1 without further testing? Similarly, if we have a tested combination package, can we reduce the size of the external packaging in accordance with Variation 4 without further testing?

A4. The answer to both questions is yes. As provided by § 178.601(g)(1), variations are permitted in the inner and outer packagings without further testing, provided an equivalent level of performance is maintained. Variation 1 may be applied to allow the substitution of smaller inner containers of similar design and Variation 4 to allow a reduction in the external dimensions of a tested outer container. The new package cannot exceed the gross weight (combined weight of package and contents) of the originally tested package design.

I trust this satisfies your request. If we can be of further assistance, please do not hesitate to contact me.

Sincerely,



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

## **Complying with U.S. Hazardous Materials Regulations and Transport Canada's Dangerous Goods Regulations for Shipping Fresh Packs as a Consumer Commodity**

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After a meeting between members of BCI and the U.S. Department of Transportation (DOT) in May 2004, the Agency issued a letter clarifying several matters with regard to shipping “fresh packs” as Consumer Commodities (ORM-D) pursuant to the U.S. hazardous materials regulations. As a result, the following guidelines for shipping fresh packs as Consumer Commodities were developed for members of BCI.

### **SHIPPING FROM OVERSEAS TO USA BY SEA**

The international transportation regulations that govern shipments of hazardous materials by sea are contained in the International Maritime Dangerous Goods (IMDG) Code. While the IMDG Code does not contain provisions for a “Consumer Commodity” it does provide for “Limited Quantities,” which is very similar in many respects to a Consumer Commodity. Thus, when shipping fresh packs from factories overseas, they can be shipped as Limited Quantities. Once they reach the USA, they can be shipped **by ground** in the USA and Canada as a “Consumer Commodity.”

### **PACKAGING REQUIREMENTS**

1. The Battery fluid, acid should be placed in a plastic container and not exceed 1 liter (use of “bags” or “pouches” are prohibited).
2. The plastic container should be placed in a 4G fiberboard box and UN tested to meet Packing Group II packaging requirements.
3. The 4G fiberboard box should be placed in a strong fiberboard box (“Fresh Pack”) along with the dry lead battery.
4. The fresh pack and master cartons containing fresh packs should not exceed 30 kg (66 pounds).

### **MARKING REQUIREMENTS**

1. **4G fiberboard box** must contain and identification codes for UN specification packagings on one side. Orientation arrows on two opposite vertical sides of 4G box are not required but recommended.
2. **Fresh pack and master cartons** must contain the following:
  - i. Orientation arrows on two opposite vertical sides of package.
  - ii. “Consumer Commodity” “ORM-D” markings on one side. The “ORM-D” marking must be placed within a rectangle that is 6.3 mm (0.25 inches) larger on each side than the ORM-D designation. (See example below.)
  - iii. “OVERPACK” marking.
3. In the USA and Canada, Fresh Pack or master cartons with fresh packs shipped individually must contain consignor’s and consignee’s name and address.

## SHIPPING PAPER REQUIREMENTS

1. When shipping from overseas in a freight container, shipping papers must include the words "Limited Quantity" or "LTD QTY".
2. When shipping from distribution centers in the U.S. or Canada, hazardous materials shipping papers are not required. (Note: Canada does require large shipments (over 500 kg) to be accompanied by a document that includes the words "Limited Quantity" or "quantité limitée", the abbreviation "Ltd. Qty." or "quant. ltée" or the words "Consumer Commodity" or "bien de consommation.")

