



U.S. Department
of Transportation
**Research and
Special Programs
Administration**
SEP 25 2003

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

Mr. Daniel J. Burke
Acting Head, Environmental, Safety
and Security Department
Department of the Navy
Naval Undersea Warfare Center Division
1176 Howell Street
Newport RI 02841-1708

RefNo.: 03-0219

Dear Mr. Burke:

This is in response to your letter and subsequent telephone conversation with Gigi Corbin of my staff, requesting clarification of § 173.159(c)(1) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically you asked whether you may ship Batteries, wet, filled with alkali, 8, UN 2795, PG III under the provisions of § 173.159(c)(1) via rail, highway or vessel.

According to your letter, you are shipping 200 batteries in the original manufacturer's crate or in similar newly constructed crates. The batteries will be packed and secured in a manner to prevent any of the battery terminals from supporting the superimposed weight. In addition, the crates will be secured to pallets or skids with banding. The estimated weight of the batteries, pallet or skid, and crate is 1100 lbs. Section 173.159(c)(1) allows electric storage batteries protected against short circuits and firmly secured to skids or pallets capable of withstanding the shocks normally incident to transportation to be transported by rail, highway, or water. The height of the completed unit must not exceed 1 ½ times the width of the skid or pallet. The unit must be capable of withstanding, without damage, a superimposed weight equal to two times the weight of the unit or, if the weight of the unit exceeds 907 kg (2000 pounds), a superimposed weight of 1814 kg (4000 pounds). Battery terminals must not be relied upon to support any part of the superimposed weight. Provided all provisions in § 173.159(c)(1) are met, your understanding is correct.

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

Sincerely,


Susan Gorsky

Senior Transportation Regulations Specialist
Office of Hazardous Materials Standards



030219

173.159



DEPARTMENT OF THE NAVY
NAVAL UNDERSEA WARFARE CENTER DIVISION
1176 HOWELL STREET
NEWPORT RI 02841-1708

Relferford
§ 173.159(c)(1)
Batteries

IN REPLY REFER TO:

5090
Ser 3551/75

03-0219

Mr. Edward Mazzullo
Director, Office of Hazardous Material Standards
USDOT/RSPA/DHM10
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Mazzullo:

The Naval Undersea Warfare Center (NUWC) is in the process of preparing a procedure for shipping silver-zinc batteries containing Potassium Hydroxide (KOH). During a July 29, 2003, phone call with Ms. Gigi Corbin in your Office of Hazardous Materials Safety, NUWC received verbal approval for shipping silver-zinc batteries containing KOH under the regulatory requirements of 49 CFR § 173.159(c)(1). During that conversation, Ms. Corbin consulted with another member of her office, Mr. John Gale, who agreed with that approval. NUWC is requesting written verification from your office in order to ensure our compliance with the intent of the Hazardous Materials Regulations (HMR).

NUWC facilities use rechargeable silver-zinc batteries for undersea warfare research, development, test, and evaluation work at a rate of approximately 5000-6000 cells annually. These batteries, measuring 1.5 x 6 x 6.5 inches, are manufactured and tested to strict military specifications. When shipped from the manufacturer to the operational sites, the batteries are dry. Two hundred batteries are packaged and shipped in a single non-specification crate. The batteries are filled with KOH at the NUWC facilities before initial use. Each wet battery has a maximum weight of 4.55 pounds.

After approximately two years of use, the batteries are no longer able to hold an adequate charge and are considered salvageable. At that point, the batteries are completely discharged with the positive and negative terminals connected with a jumper wire to prevent the batteries from developing a charge and possibly causing a short circuit during packing, shipping, and unpacking. The batteries are currently shipped to Hawthorne, Nevada for reclamation.

5090
Ser 3551/75

Our proposed procedure for shipping these batteries is as follows:

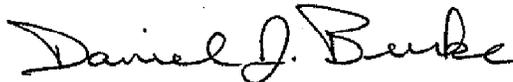
a. No more than 200 batteries will be re-packaged in the original manufacturer's crate or in a similar newly constructed crate. The crates will meet the superimposed weight requirements of the regulation. The batteries will be packed and secured in a manner to prevent any of the battery terminals from supporting the superimposed weight. The crate will then be secured to the pallet or skid with banding. The estimated weight of the batteries, pallet or skid, and crate is 1100 pounds. The completed unit will comply with the dimension requirements of the regulation.

b. The skid or pallet of batteries will be marked with the proper shipping name stipulated in the 49 CFR § 172.101 Hazardous Materials Table; specifically, "Batteries, wet, filled with alkali, 8, UN2795". They will be labeled as "Corrosive" with arrow up indicators. A shipping document will be prepared using the proper shipping name and all other applicable HMR requirements.

If you have any questions regarding our proposal or this request, or any recommended modifications, you may direct them to Mr. Noel (Mac) Field in our Hazardous and Solid Waste Program at (401) 832-5858.

Thank you for your assistance on this issue. I look forward to your reply.

Sincerely,



D. J. BURKE
Acting Head, Environmental,
Safety and Security Department
By direction of the Commander

Copy to:
PMS401 (E. Sutton)
NUWC DIVKPT Code L (R. Jusko)
NUWC DIVKPT Code 30 (G. Cooper)
NUWC DIVKPT Code 80 (D. Kohn)
NUWC DIVKPT Code 325 (D. Herzog, J. Kucera)