



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

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

AUG 25 2003

Ms. Andra Russell
Manager of Sales Administration
Hardringe Inc.
P.O. Box 1507
One Hardringe Drive
Elmira, NY 14902-1507

Ref. No. 03-0133

Dear Ms. Russell:

This is in response to your May 19, 2003 letter concerning the transportation of accumulators by vessel. Specifically, you ask whether the International Maritime Dangerous Goods (IMDG) Code provides an exception similar to that which is found in § 173.306(f)(1) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

Section 173.306(f)(1) specifies that accumulators, which are installed in motor vehicles, construction equipment, and assembled machinery and designed and fabricated with a burst pressure of not less than five times their charged pressure at 70° F, when shipped, are not subject to the HMR.

The IMDG Code does provide a similar exception for accumulators under Special Provision 283 in paragraph 3.3.1. Special Provision 283 specifies that articles, containing gas, intended to function as shock absorbers, including impact-energy-absorbing devices or pneumatic springs, are not subject to the provisions of the IMDG Code provided: each article has a gas space capacity not exceeding 1.6L and a charge pressure not exceeding 280 bar where the product of the capacity (liters) and charge pressure (bar) does not exceed 80; each article has a minimum burst pressure of 4 times the charge pressure at 20°C for products not exceeding 0.5L gas space capacity and 5 times charge pressure for products greater than 0.5L gas space capacity; each article is made of material that will not fragment upon rupture; each article is manufactured in accordance with a quality-assurance standard acceptable to the competent authority; and the design type has been



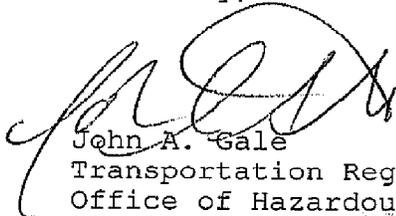
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173.306(f)(1)

subjected to a fire test demonstrating that pressure in the article is relieved by means of a fire-degradable seal or other pressure-relief device, such that the article will not fragment and that the article does not rocket.

I hope this satisfies your request.

Sincerely,

A handwritten signature in cursive script, appearing to read 'John A. Gale', is written over the typed name and title.

John A. Gale
Transportation Regulations Specialist
Office of Hazardous Materials Standards

October 23, 2002

173-306(4)(1)
03-0133

US Department of Transportation
Research and Special Programs Administration
Transportation Regulations Specialists
Office of Hazardous Materials Standards
400 Seventh Street, S.W.
Washington, D.C. 20590-0001

Subject: IMDG Code Clarification Regarding Accumulators

Dear Sir/Madam:

In researching past clarifications, a letter dated December 17, 1999 was written to Ms. Kathryn Parham, Ref. No. 99-0318 (copy attached). The letter addresses the correct transportation method regarding accumulators. It was printed from the USDOT website in order to substantiate Hardinge's interpretation of the regulations regarding accumulators being transported, which are installed in assembled machinery. As provided by 49CFR 173.306(f)(1), accumulators which are installed in assembled machinery and constructed with a burst pressure of at least five times their charged pressure at 70° F are not subject to the HMR.

The regulation pertaining to the transportation of accumulators installed in assembled machinery is also clearly stated in the International Air Transportation Association (IATA) regulations, under Packing Instruction 208(a) for air transportation. However, a reference specifically pertaining to accumulators installed in assembled machinery could not be found in the International Maritime Dangerous Goods (IMDG) Code.

Since the US Department of Transportation, Research and Special Programs Administration is listed as a contact office of the designated competent authority in the IMDG Code, and, your letter to Ms. Parham pertained specifically to accumulators installed in assembled machinery, would you please provide clarification of the IMDG Code that specifically addresses the transportation, by ocean, of accumulators installed in assembled machinery?

Sincerely,

Andra Russell
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