



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

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

OCT 2 2007

Mr. Robert D. Daugherty  
Vice President-Operations  
Kegel, LLC  
1951 Longleaf Blvd.  
Lake Wales, FL 33859

Ref. No.: 07-0068

Dear Mr. Daugherty:

This is in response to your letter dated March 19, 2007 requesting clarification of shipping requirements under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and the International Maritime Dangerous Goods Code (IMDG) for battery powered, self propelled bowling lane maintenance equipment. According to your letter, the equipment is powered by two lithium ion batteries each containing approximately 48 grams of equivalent lithium content. The batteries are securely installed in the equipment and have successfully passed the testing requirements outlined in the United Nations Manual of Tests and Criteria, Fourth Revised Edition. Your questions are paraphrased and answered as follows:

Q1: May the bowling lane maintenance equipment and related chassis and power base containing two 48 gram lithium ion batteries be shipped by ground in the United States under the provisions of § 173.220?

A1: No. As provided by § 173.220(d), equipment other than vehicles or engines, containing lithium batteries must be transported in accordance with § 173.185. The bowling lane maintenance equipment described in your letter is best described as "Lithium batteries, contained in equipment UN3091".

Q2: May the bowling lane equipment and related chassis and power device containing two 48 gram lithium ion batteries be assigned the proper shipping name and identification number "Battery-powered equipment, UN3171" under the IMDG Code?

A2: No. The option to use "Battery-powered equipment, UN3171" as a hazardous materials shipping description does not exist under the IMDG Code. The bowling lane maintenance equipment is best described as "Lithium batteries, contained in equipment UN3091". Additionally, for transportation within the United States, you must transport



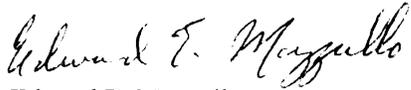
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173.220  
173.185

your bowling lane maintenance equipment in accordance with the applicable HMR requirements (see § 171.22(c)).

I hope this information is helpful.

Sincerely,

A handwritten signature in cursive script that reads "Edward T. Mazzullo".

Edward T. Mazzullo  
Director  
Office of Hazardous Materials Standards



**Kegel, LLC**  
1951 Longleaf Blvd  
Lake Wales, FL USA 33859  
(863) 734-0200 Phone  
(863) 734-0204 Fax



March 19, 2007

Heary  
§ 173.220  
§ 173.185  
Applicability  
07-0068

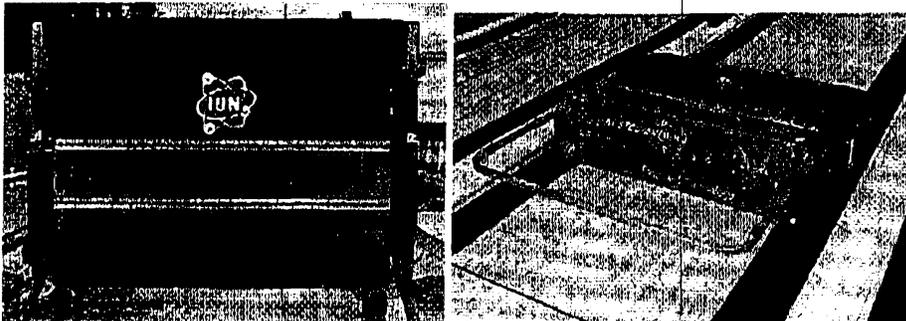
Mr. Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards  
U.S. DOT/PHMSA (PHH-10)  
400 7th Street S.W.  
Washington, D.C. 20590-0001

Re: Request for Interpretation – Lithium ion Batteries and Battery-Powered Equipment in the HMR and IMDG Code

Dear Mr. Mazzullo:

I am writing for a clarification on the classification of my company's battery powered, self-propelled bowling lane maintenance equipment under the U.S. Hazardous Materials Regulations (HMR) and International Maritime Dangerous Goods (IMDG) Code. The equipment is powered by lithium ion batteries.

Kegel LLC recently introduced a new line of bowling lane maintenance equipment (Kustodian ION and Walker models) powered by two lithium ion batteries that each contain approximately 48 grams of equivalent lithium content (ELC). Pictures of the equipment are provided below. As you can see the equipment moves along the bowling lanes on wheels.



The lithium ion battery used in our products meets all of the testing requirements in the UN Manual of Tests and Criteria, Fourth Revised Edition. When shipped by ground, air, or sea the batteries are offered as Class 9 lithium batteries (UN 3090) pursuant to the applicable U.S. or international dangerous goods regulations.

When these lithium ion batteries are incorporated into Kegel's lane maintenance equipment or a portion of the product (an upgrade chassis or power base) it is Kegel's intention

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 1951 Longleaf Blvd  
 Lake Wales, FL USA 33859  
 (863) 734-0200 Phone  
 (863) 734-0204 Fax



to classify these as Battery Powered Equipment (UN 3171) under the U.S. HMR. As Battery Powered Equipment, the lane equipment, chassis, or power base that contains the lithium ion batteries appear to be excepted from regulation under the HMR when shipped by ground in the U.S. pursuant to 49 CFR 173.220. Therefore, my first question is as follows:

- 1. Can Kegel's lane equipment and related chassis and power base that contain two 48 g lithium ion batteries be shipped by ground in the U.S. pursuant to the exception at 49 CFR 173.220?**

Kegel also intends to ship its product by sea pursuant to the IMDG Code. We would like to receive written confirmation that the IMDG Code does not contain an entry for Battery Powered Equipment (UN 3171), and it is generally recognized these materials are not subject to regulation under the IMDG Code and thus the International Maritime Organization (IMO) has made a deliberate decision to remove this entry from the IMDG Code.

So my second question is as follows:

- 2. Is Kegel's lane equipment and related chassis and power base that contain two 48 g lithium ion batteries and classified as Battery Powered Equipment (UN 3171) excepted from the requirements of the IMDG Code?**

A similar request for clarification was made by Segway in 2005 for their mobility device and was received favorably by your office. You indicated in your reply on August 16, 2005 that their equipment was excepted provided they meet the other provisions. We respectfully request the same consideration for shipping our lane maintenance equipment.

Thank you for your assistance with regard to these matters. I look forward to your reply.

Sincerely,

Robert S. Daugherty  
 Vice President - Operations