



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

MAR 27 2013

Mr. Andrew N. Romach
Regulatory Compliance Manager
URS Corporation
1600 Perimeter Park Drive
Suite 400
Morrisville, NC 27560

Reference No.: 13-0011

Dear Mr. Romach:

This is in response to your January 8, 2013 letter and follow-up telephone discussions requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You ask several questions pertaining to § 173.164(a)(5), an exception for mercury lamps, when transported as cargo aboard an aircraft. This exception was recently codified into the HMR pursuant to a final rule published under Docket HM-215L (78 FR 987), Hazardous Materials: Harmonization with International Standards (RRR).

Section 173.164(a)(5) provides: When transported as cargo, lamps are excepted from the requirements of this subchapter provided, each lamp contains not more than 1 g of mercury and is packaged so that there is not more than 30 g of mercury per package. Packages must be so designed and constructed such that when dropped from a height of not less than 0.5 meter (1.5 feet) the packages must still be fit for transport and there must be no damage to the contents.

Your questions are paraphrased and answered as follows:

Q1. The drop test for packages is not specific. How should the drop test be performed?

A1. Although no specific requirements for the test are prescribed, it is our position that the package would have to pass a drop onto a rigid, non-resilient, flat and horizontal surface with the package dropped from an orientation that would most likely result in damage to the package making it unsuitable for transportation or the release of contents from the package.

Q2. What does the phrase, "no damage to the contents" mean?

A2. The general requirement of the HMR is that there would be no damage to the contents that would allow the release of the hazardous materials from the package.

Q3. If a shipper has numerous lamp product types containing low quantities of mercury that could meet this exception, could a representative package containing the most fragile contents be tested and extrapolate the test results to packages containing comparable or more robust contents?

A3. Provided all other parameters of the package and its contents remain the same, a test conducted using the most fragile contents would meet the test requirement for a package containing comparable or more robust contents. However, changes to a package or its contents, such as greater mass, or a change in the configuration or orientation of the contents within the package may affect the outcome of the test. Ultimately, it is the responsibility of the manufacturer or shipper to ensure the completed package meets the requirements of the test.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Delmer Billings". The signature is written in a cursive style with a large initial "D".

Delmer Billings
Senior Regulatory Advisor
Standards and Rulemaking Division



January 8, 2013

Babich
§ 173.164(a)(5)
Applicability
13-0011

Mr. Charles Betts, Division Director
Standards and Rulemaking (PHH-10)
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
East Building, 2nd Floor
1200 New Jersey Ave., SE
Washington, DC 20590

Dear Mr. Betts:

I am writing to ask for a written clarification concerning an exception for the proper shipping name "Mercury contained in manufactured articles," which was adopted January 7, 2013, in HM-215L ("Hazardous Materials: Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air") and applies to lamps when shipped as cargo. This exception found in 49 CFR 173.164(a)(5) allows:

(5) When transported as cargo, lamps are excepted from the requirements of this subchapter provided, each lamp contains not more than 1 g of mercury and is packaged so that there is not more than 30 g of mercury per package. **Packages must be so designed and constructed such that when dropped from a height of not less than 0.5 meter (1.5 feet) the package must still be fit for transport and there must be no damage to the contents.** [Bolded text added for emphasis.]

I am writing to seek clarification about the above-described drop test.

1. If a shipper has numerous lamp product types (>350) containing low quantities of mercury (and more product types continually being added) that could meet this exception, could a representative/worst case package be drop tested such that the test results could be extrapolated to all of the packages containing comparable or less fragile contents?
2. Does the phrase "no damage to contents" mean no release of mercury from the lamp? (The mercury is well sealed inside of the lamp.) Or does this phrase mean a delicate filament inside the lamp could not break? Or does this phrase mean that an interior cardboard divider inside of the package could not bend?

I would appreciate your assistance with these questions.

Sincerely,

Andrew N. Romach
Regulatory Compliance Manager
URS Corporation