



U.S. Department  
of Transportation

JUN 30 2011

1200 New Jersey Avenue SE  
Washington, DC 20590

**Pipeline and Hazardous  
Materials Safety  
Administration**

Mr. Stephen C. Powell  
Lab Director  
Container-Quinn Testing Laboratories, Inc.  
170 Shepard Avenue  
Wheeling, IL 60090

Ref. No. 11-0048

Dear Mr. Powell:

This responds to your February 22, 2011 request for clarification of package variation testing requirements under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You describe a combination packaging where a 4G box is the outer packaging and the inner packaging is a sealed bag containing vermiculite and 1 or more glass receptacles evenly spaced within the vermiculite for the testing. You add weight to the bag to satisfy the gross mass requirements for drop testing in accordance with § 178.601(g)(2)(ii). Specifically, you ask if the package described in your letter is properly prepared and tested in accordance with the requirements for selective testing under variation 2 in § 178.601(g)(2).

The answer is no. The selective testing requirements in § 178.601(g)(2) (Variation 2) permit articles or inner packagings of any type, for solids or liquids, to be assembled and transported without testing in an outer packaging provided certain conditions are met. One condition in § 178.603(g)(2)(i) requires the outer packaging to successfully pass the drop test in § 178.603 with fragile inner packagings containing liquids at the Packing Group I drop height. In the scenario described in your letter, the glass receptacles are the "fragile inner packagings" and the bag is a secondary means of containment required in accordance with § 178.601(g)(2)(vi). The combined gross mass of inner packagings may not exceed ½ of the gross mass of the inner packagings used for the drop test. Thus, in the scenario described in your letter, any mass added to the inner packagings must be placed inside the glass receptacles for the drop test.

I hope this answers your inquiry. If you need additional assistance, please contact this office at (202) 366-8553.

Sincerely,

Ben Supko  
Chief, Standards Development  
Standards and Rulemaking Division



**CONTAINER-QUINN  
TESTING LABORATORIES, INC.**

A division of H.H. Holmes Testing Laboratories, Inc.  
170 Shepard Avenue Wheeling, IL 60090  
Phone: 847-537-9470 Fax: 847-537-9098  
e-mail: [spowell@container-quinn.com](mailto:spowell@container-quinn.com)

Eichenlaub  
§178.1  
§178.601(g)  
Definitions  
11-0048

22 February 2011

Mr. Charles Betts  
Chief, Standards Development  
Office of Hazardous Materials Standards  
US DOT / PHMSA (PHH-10)  
1200 New Jersey Avenue, SE  
East Building, 2<sup>nd</sup> Floor (PH)  
Washington, DC 20590

Mr. Betts;

Re: Definition, Combination package for testing purposes

I am requesting clarification of the definition of a Combination Package per the 49CFR as it pertains to a 4GV package.

Per 178.8, Definitions and Abbreviations:

*Combination packaging* means a combination of packaging, for transport purposes, consisting of one or more inner packagings secured in a non-bulk outer packaging. ....

*Inner packaging* means a packaging for which an outer packaging is required for transport. ....

In relation to a 4GV package and it's testing, I have defined the package and successfully tested it as follows:

I am utilizing a 4G corrugated shipper as the outer packaging. My inner packaging is a sealed polybag containing vermiculite and 1 or more glass receptacles evenly spaced within the vermiculite for the testing (178.601(g)(i) The outer packaging must have been successfully tested in accordance with §178.603 with fragile (e.g. glass) inner packagings containing liquids at the Packing Group I drop height). For the drop testing, additional weight is added to the polybag to attain the required double weight requirement.

I believe that this package meets the requirements for the 4GV package and the testing requirements but this has come into question as different labs use different methods. Can you please give me clarification and let me know if my interpretation is a valid one or if I am on the wrong track. Any guidance you can provide will be greatly appreciated.

Thank you for your assistance in this matter.

Sincerely

Stephen C. Powell  
Lab Director  
Container-Quinn Testing Laboratories, Inc.