



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

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

JUN 24 2013

Mr. Samuel Elkind  
Corporate Regulated Goods Manager  
United Parcel Service  
55 Glenlake Parkway, NE  
Atlanta, GA 30328-3474

Ref. No.: 13-0094

Dear Mr. Elkind:

This responds to your May 1, 2013 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to limited quantity packages of mixed contents. For transportation by aircraft, you ask whether a shipper should use Table 3 in § 173.27(f)(3), or the provisions in § 173.24a(c)(1)(iv) when determining the maximum net quantity of each inner and outer packaging for limited quantity packages of mixed contents.

As provided in § 173.27(f)(2), when a limited quantity of a hazardous material is packaged in a combination packaging and is intended for transportation aboard an aircraft, the inner and outer packagings must conform to the quantity limitations set forth in Table 3. Table 3 provides the maximum net quantity of each inner and outer packaging for materials authorized for transportation as a limited quantity by aircraft. For mixed contents of limited quantities by air, the shipper must comply with the maximum authorized net quantity of each outer package (column 4 of 5 in Table 3) and ensure that the total net quantity does not exceed the lowest permitted maximum net quantity per package as shown by hazard class or division for the hazardous materials in the mixed contents package.

However, we do recognize that the intent of Table 3 in § 173.27(f)(3) as compared to § 173.24a(c)(1)(iv) may be ambiguous in regard to limited quantity packages of mixed contents, and may consider revising the text in a future rulemaking.

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

Sincerely,

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

Nickels  
§ 173.27(f)(3)  
Limited Quantity Packages  
13-0094



55 Glenlake Parkway, NE  
Atlanta, GA 30328-3474

May 1, 2013

Mr. Charles Betts  
Director, Hazardous Materials Standards Division  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Attn: PHH-10 – East Building  
Washington, DC 20590

Re: Use of Table 3 of 49 CFR 173.27(f)(3) for Limited Quantity Packages with Mixed Contents

On behalf of UPS, Inc., I write to request regulatory guidance specific to the determination of the maximum allowed hazardous materials quantities for air packages containing mixed contents, which are also prepared under the Limited Quantity provisions (i.e. multiple materials prepared under Limited Quantities provisions, all packed in one outer package that is to be offered for air transport).

The involvement of packages prepared under Limited Quantity provisions is important. The available guidance on mixed contents air shipments appears in §173.24a(c)(1)(iv). However, this requirement points the shipper to Columns 9a and 9b of the §172.101 Table for maximum package quantities; the total quantity of hazardous materials contained within a package must not exceed the most restrictive of the quantities shown in Column 9a or 9b for the materials contained within the package.

This instruction, however, does not seem to be relevant to the circumstances of a Limited Quantity air shipment. The maximum package quantities in Columns 9a and 9b are specifically not applicable for packages prepared under Limited Quantity provisions; rather, the separate inner and outer package limits associated with packages offered under Limited Quantity provisions are spelled out in Table 3 of 49 CFR 173.27(f)(3). Additionally, §173.27(f)(2)(iii) indicates that “a completed [Limited Quantity] package may not exceed 30 kg gross weight.”

This background leads UPS to believe there may be a gap in the HMR concerning a mixed contents air shipment prepared under the Limited Quantity provisions. Table 3 of §173.27(f)(3) is normally relevant to both the inner and outer packaging restrictions applicable to Limited Quantity air shipments. UPS believes that it may also be applicable for shipments of mixed contents. However, the Table 3 column, “Maximum authorized net quantity for each outer package” exclusively provides the maximum outer package quantity for the specific hazard class or division and packing group combination from that row of Table 3. There is no discussion of circumstances in which the outer package contains more than one type of hazardous material.

The lack of guidance in this connection has practical consequences, the outcome of which may not be entirely in accord with PHMSA's intended policy. For example, if PHMSA's guidance is to restrict even a Limited Quantity mixed contents air shipment to the most restrictive of the quantities shown in Column 9a of §172.101, seemingly excessive package sizes may be the result. Conversely, the allowance of the individual §173.27(f)(3) Table 3 inner and outer package quantities appears to be a reasonable solution, providing a reasonably restricted quantity, while remaining within the constant gross weight limitation applicable to Limited Quantity packages of 30 kg. The values entered in the following table, showing hypothetical mixed contents air shipments, highlight some of the extremes of the problem at the heart of our inquiry.

<b>Hypothetical Packages of Mixed Contents, Packed under LTD QTY Provisions</b>					
(Column 1)  UN Number, Packing Group	(Column 2) <b>172.101 Column 9a Net Quantity Limit</b>	(Column 3) <b>173.27(c)(3) Table 3 Net Quantity Limit</b>	(Column 4) <b>Total per 172.101 Column 9a "most restrictive"</b>	(Column 5) <b>Total per 173.27(c)(3) Table 3 "most restrictive"</b>	(Column 6) <b>Total per 173.27(c)(3) if individually measured</b>
UN1263 PGIII	60L	10 L	60L	2L	12L
UN3287, PGIII	60L	2L			
UN1263, PGII	5L	1L	5L	1L	2L
UN1090, PGII	5L	1L			
UN3178, PGIII	25kg	10kg	25kg	5kg	15kg
UN2585, PGIII	25kg	5 kg			

As shown above, the mixed contents guidance currently available in the HMR leaves important questions unanswered where Limited Quantity air shipments are concerned. Reliance on the current §173.24a(c)(1)(iv) yields unexpectedly large outer package limits that seem unlikely to be PHMSA's intended result, as shown in Column 4 in the table above. But UPS stresses that if PHMSA's intention is to guide users to Table 3 of §173.27(c)(3), the text therein currently appears to be inadequate. A user cannot easily conclude whether a hybrid of the current §§173.24a(c)(1)(iv) and 173.27(c)(3) may apply, whereby the most restrictive outer package limit from Table 3 is *intended* (but not stated) to apply, as shown in Column 5 of the above table; or whether PHMSA intends to allow the assembly of compliant inner packages up to the maximum outer package limit of Table 3 for each present Class/Division and Packing Group, so long as the constant 30 kg gross package limit is also satisfied, as shown in Column 6 of the above table.

Accordingly, UPS looks forward to PHMSA's guidance in this matter. Your response will ensure the accuracy of both our communication to customers and our internal guidance for UPS processes.

Sincerely,



Samuel S. Elkind  
Corporate Regulated Goods Manager