



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, DC 20590

NOV 16 2017

Mr. Tim Shaw
Kalitta Air, LLC.
818 Willow Run Airport
Ypsilanti, MI 48198

Ref. No.: 16-0169

Dear Mr. Shaw:

This responds to your October 12, 2016 letter requesting clarification on shipping paper requirements and package quantity limitations for Class 1 materials under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI). Specifically, you ask about the shipping paper requirements and net quantity limits applicable to Class 1 (explosive) materials or articles. Your questions are paraphrased and answered as follows:

Q1. For transportation by aircraft, you ask if the net explosive mass (NEM) may be expressed on a shipping paper as the net weight of an article and not differentiate between the two.

A1. Under the HMR, for Class 1 materials, the quantity must be the net explosive mass. For a Class 1 material that is an article, the net explosive mass may be expressed in terms of the net mass of either the article or the explosive materials contained in the article.

Q2. Does the ICAO TI allow the net explosive mass indicated on a shipping paper to be expressed in terms of either the net mass of the article or the explosive materials contained in the article, or does it differ from the HMR and require an indication the explosive materials contained in the article only?

A2. The ICAO TI in Part 5;4.1.5.1 states that the net quantity of dangerous goods in each package must be indicated by mass or volume as appropriate. For explosive articles of Class 1, the net quantity must be supplemented with the NEM. The definition for net explosive mass in Part 1;3.1.1 states:

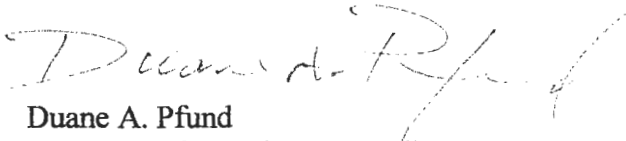
Net explosive mass (NEM). The total mass of the explosive substances, without the packagings, casings, etc.

Q3. You provide an example of a shipment consisting of UN0186, Rocket motors, 1.3C. Each rocket motor has a net mass (net quantity) of 381.03 kg and a net explosive mass of 110.34 kg. The net quantity limit per package under both the HMR and the ICAO TI is 220 kg for UN0186. You ask which weight is used for determining the quantity limit per package.

A3. The net mass of the article (rocket motors) is used for determining per package quantity limitations set forth in Column 9 of the § 172.101 Hazardous Materials Table. As prescribed in § 172.101(j)(3), when articles or devices that are specifically listed by name in the HMT, the net quantity limitation applies to the entire article or device (less packaging and packaging materials) rather than only to its hazardous components. This is consistent with the definition for “Net quantity” in Part 1;3.1.1 and provisions in Part 3, Chapter 2.1.1 “Column 11” and “Column 13” of the ICAO TI. In the scenario described, the rocket motors would not be eligible for air transport unless under the terms of a special permit.

I hope this answer your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division at (202) 366-8553.

Sincerely,



Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division



Wener
§ 172.202
Shipping Papers
16-0169

October 12, 2016

Mr. Charles E. Betts
Director, Standards and Rulemaking Division
U.S. DOT/PHMSA (PHH-10)
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington, DC 20590

Dear Mr. Betts,

Kalitta Air, LLC., is an all-cargo aircraft operator, headquartered in the United States, certificated under 14CFR 119, and operating under part 121. Kalitta air transports Explosive material by air, operating under its own DOT Special Permit, as well as other Special Permits.

We are confused when discussing the term 'net quantity per package' for articles, transported by air.

The International Civil Aviation Organization (ICAO) Technical Instructions, list 'Information required in addition to the dangerous goods description,' in Part 5; 4.1.5.1. f:

"f) for explosive articles of Class 1, the net quantity indicated for each package must be supplemented with the net explosive mass (see Part 1;3.1.1 for the definition of net explosive mass) contained in the package followed by the unit of measurement. The abbreviations "NEQ", "NEM" or "NEW" may be indicated in association with the value provided."

We are comfortable with the net quantity of a substance, i.e. RDX, wetted, or RDX, desensitized, but have a difficult time when discussing the net weight of articles with our customers.

Your letter of June 8, 2004, to Mr. Bob Van Duzer, of the Sporting Arms and Ammunition Manufacturers Institute, (SAAMI), did not resolve the confusion. You referenced 172.202 (a) (5) (i), applicable to situations 'Except for transportation by aircraft'. That section specifically mentioned Explosives, but allows the offeror to state the net mass of either the article or the explosive materials contained in the article. The following section, 172.202 (a) (6), 'For transportation by aircraft,' does not mention explosives, but does require the total net mass per package, be shown unless a gross mass is indicated in Columns (9A) or (9B) of the §172.101 table.

Our valued customers want to show the Net Explosive Mass (NEM) or NEW, as the net weight of an article, and not differentiate between the two.

Perhaps a more practical example of my question relates to a shipment of UN0186, Rocket Motors, 1.3C. UN0186. When properly identified, classified,

packed, marked, labeled and documented, Rocket motors are acceptable for transportation by air, as long as the maximum net quantity in one package of 220 Kg, is not exceeded. In this instance, the shipper shows 3 (appropriate) boxes x 381.03 Kg each, with a Net Explosive Weight (NEW) of 110.34 Kg each.

My questions are these:

1. For international air transportation, under the ICAO Technical instructions, is the net weight of each package 381.03 kg or 110.34 kg?
2. Are the requirements applicable to domestic transportation different from the ICAO requirements, and therefore only require the weight of the explosive material & not the weight of the article?

Put differently, is the quantity limit of 220 Kg, in the 49CFR part 172.101 table, applicable to the Net Weight of the Explosive, (381.03 kg) or the Net Explosive Weight (NEW) (110.34 Kg)?

I consider the Net Weight of Explosive as the finished article, exclusive of packaging, while the Net explosive Weight is the weight of (only) the explosive material, itself.

The difference is substantial. The difference often dictates whether a Special Permit is required to transport this cargo, or whether this is a routine movement of acceptable Class 1 material.

Your interpretation would be appreciated.

Respectfully,



Tim Shaw
Manager of Security