Before the
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
Washington D.C.

Pipeline and Hazardous Materials Safety Administration:

Notice of Proposed Rulemaking

Hazardous Materials: Miscellaneous Amendments
Docket No. PHMSA-2013-0225 (HM-218H)

Submitted by:

UPS
Atlanta, GA

Communications with respect to these comments should be directed to:

Thomas F. Jensen
UPS
316 Pennsylvania Ave., SE
Washington, D.C.  20003
(202) 675-3356

Samuel S. Elkind
Corporate Regulated Goods Manager
UPS
55 Glenlake Parkway NE
Atlanta, GA  30328
(404) 828-7368
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UPS takes this opportunity to respond to the Notice of Proposed Rulemaking (NPRM) in Docket HM-218H, “Miscellaneous Amendments,” as published in the January 23, 2015 Federal Register.\(^1\) UPS is a multi-modal, international carrier of small packages and documents. UPS also transports freight by all modes in its U.S. less-than-truckload (LTL) network, in its global air network, and in its capacity as an air freight forwarder and ocean non-vessel operating common carrier. It also provides logistics and distribution services through UPS Supply Chain Services. UPS transports hazardous materials in each of its service offerings and among many of the countries served by its network.\(^2\)

The NPRM in HM-218H contains a wide variety of proposals, some of which are of direct interest to UPS. UPS’s comments on those proposals follow.

§173.21 – Forbidden Materials and Packages

PHMSA proposes to introduce the phrase “transport vehicle” into §173.21(e), such that this provision would prohibit carriage in any transport unit materials “the mixing of which is likely to cause a dangerous evolution of heat, produce flammable or

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\(^1\) See 80 Fed. Reg. 3,788. For subsequent citations of this notice, page numbers will be given in the text.

\(^2\) UPS picks up approximately 18 million small packages and documents each day for its 1.6 million regular pick-up customers. To service this volume, UPS operates one of the largest airlines in the world, with 237 aircraft, and maintains a motor-vehicle fleet that includes over 99,000 vehicles servicing its small package operations alone. UPS LTL freight operations within the U.S. are serviced by almost 6,000 tractors and over 19,000 trailers. UPS’s global logistics, air and ocean freight services operate in over 120 countries. UPS employs 435,000 employees, of which 354,000 work within the U.S. and 81,000 work in other countries.
poisonous gases or vapors, or produce corrosive materials” (p. 3,833). In the preamble, PHMSA explains background involving a condition identified through a letter seeking an interpretation of the Hazardous Materials Regulations. In the letter, the correspondent referred to three materials, each in its own IBC, loaded into a single transport vehicle. PHMSA notes, “While there are no formal segregation requirements per §177.848 of the HMR, data accompanying the letter indicated that in the event of commingling, these materials would create chlorine dioxide gas,” a forbidden material (p. 3,797).

UPS recognizes the potential seriousness of the chemical reaction that could result from the circumstances described in the preamble. Nevertheless, it urges PHMSA to consider carefully the extent to which the inclusion of the term “transport vehicle” in §173.21(e) may have unintended consequences. If there is no guidance in §177.848 to prevent the dangerous situation described in the preamble, motor carrier personnel would have no means to prevent the loading similar to that situation, despite the language of the proposed §173.21(e).

While very sympathetic to PHMSA’s desire to prevent dangerous situations through inadvertent mixture of materials, UPS urges the Agency to reconsider this proposal. In any adopted amendment to §173.21(e), carrier personnel, who cannot conduct chemical calculations about each item loaded in a vehicle, must have tools to prevent inadvertent violations – for example, the segregation tables in the HMR at §§175.78 and 177.848. Yet, as PHMSA states in the preamble, the circumstances the Agency seeks to prevent would be undetectable through those tables.

The type of loading condition PHMSA seeks to prohibit must also be balanced with the level of risk. For example, a motor vehicle today might well contain two packaged materials that, if combined, could produce “a dangerous evolution of heat”: a case of mineral water and a package containing a non-spillable lead-acid battery meet that condition. Surely PHMSA does not intend to prohibit these materials from carriage in the same transport vehicle – one is specifically excepted from most of the HMR (including §173.21) if conditions in §173.159a(c) are followed, and the other is not subject to the HMR in any circumstance. Even more fully regulated materials, such as oxidizers and corrosive materials, which can produce a significant reaction if mixed, are shown in §§175.78 and 177.848 as allowed in the same vehicle or aircraft, although with appropriate separation.

In no way does UPS dismiss the seriousness of a dangerous chemical reaction such as PHMSA mentions in the preamble. But UPS does believe that PHMSA must apply greater precision to the prohibition it seeks to implement in the proposal to revise §173.21(e). The current proposal is simply too broad to be useful. UPS opposes it in this

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3 The requirements of §177.848, address separation between only liquid Corrosive materials and Oxidizers.
form because it could be either unenforceable due to its generality or, if enforced, totally subjective because carrier personnel lack tools to prevent the violation.

§173.27 – General Requirements for Transportation aboard Aircraft

PHMSA’s proposal to amend §173.27 seeks to clarify the quantity limitations applicable to air shipments of limited quantities when a package contains more than one hazardous material (p. 3,833). In its proposal, PHMSA seeks to confirm that, when packages have mixed contents, the total maximum net quantity of hazardous material in a limited quantity package may not exceed the most restrictive of limitations shown in Table 3 under §173.27(f)(3). This clarification is consistent with a written interpretation on the same subject and UPS supports the proposed amendment.

§173.158 – Nitric Acid

Responding to a petition filed by UPS, PHMSA proposes to improve the packaging required for shipments of Nitric of less than 90 percent concentration, when offered for carriage by surface modes. In PHMSA’s proposal, tightly closed, non-reactive intermediate packagings would be required when glass inner packagings are to be placed into fiberboard or wooden outer packagings (p. 3,833). As UPS stated in its petition on this topic, the packaging improvements are needed to reduce the opportunity for glass inner packagings to release highly reactive Nitric acid into packaging materials made of fiberboard or other organic material. UPS developed the petition following an unusual increase in the number of fires involving nitric acid, in which glass bottles had released their contents and caused spontaneous combustion of the outer fiberboard packaging. For this reason, UPS fully supports PHMSA’s proposed amendment to 173.158(e).

§173.159 – Batteries, Wet

In a proposal to create a new requirement for damaged wet electric storage batteries (p. 3833), PHMSA seeks to create a new §173.159(j). The key requirements of this new text would be to drain the electrolyte from each damaged battery and to contain each damaged battery individually in a nonreactive, leakproof intermediate packaging before completing the packaging in accordance with §173.159(a). With growing experience related to incidents associated with batteries, UPS supports this proposed change.

§§173.170 and 173.171 – Black Powder for Small Arms and Smokeless Powder for Small Arms

Currently, §§173.170 and 173.171 restrict the amount of NA0025, Black powder for small arms and NA3178, Smokeless powder for small arms, respectively, to no more than 100 LB per motor vehicle. In view of the definition of “motor vehicle,” this
restriction is the same for a delivery vehicle, a tractor-trailer with a single trailer, or a
tractor-trailer with two or three trailers. Seeking to modernize the requirements of these
sections, PHMSA proposes to replace the term “motor vehicle” with “transport vehicle,”
which would authorize the loading of up to 100 LB of either NA0025 or NA3178 in a
trailer (p. 3834).

UPS supports this proposed amendment. It introduces an improved level of
consistency with other modes and uses terminology that will enable an improved level of
management within the industry.
Conclusion

UPS appreciates the opportunity to comment on the miscellaneous proposals contained in HM-218H. The proposed amendment to §173.21(e), as written, poses great potential for inadvertent violations and should be withdrawn unless a revised proposal can enable carriers to identify and prevent the combinations about which PHMSA is concerned. For the other proposals on which UPS has commented, PHMSA should adopt the proposed amendments.

UPS stands ready to assist PHMSA in any appropriate manner.