



March 24, 2015

Docket Management Facility
U.S. Department of Transportation
Docket Operations M-30
Ground Floor, Room W12-140
1200 New Jersey Avenue SE
Washington, DC 20590-0001

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

This letter provides the response of the National Propane Gas Association (NPGA)¹ to the Pipeline and Hazardous Materials Safety Administration's (PHMSA) January 23, 2015 Notice of Proposed Rulemaking (NPRM) designated as HM-218H. In the NPRM, the agency proposes miscellaneous amendments to the Hazardous Materials Regulations (HMR) to update and clarify certain regulatory requirements. PHMSA's actions are based, in part, on various petitions submitted to PHMSA, including one submitted by NPGA (P-1604).

While there are a variety of unrelated, miscellaneous amendments proposed, NPGA would like to focus its comments on two proposed changes that will have major impacts on the propane industry. Specifically, we are referring to the changes related to the pressure test and internal visual inspection requirements for cargo tanks (P-1604) and to proposed changes related LPG odorization.

The nature of our comments on each of these subjects is vastly different. Therefore, for ease of reading, we have separated our comments into two separate parts within this letter as follows:

Part I: Pressure Test and Internal Visual Inspection Requirements for Cargo Tanks

Part II: LPG Odorization

¹ NPGA is the national trade association of the propane industry having a membership of about 2,800 companies, with 39 state and regional associations representing members in all 50 states. NPGA's membership includes retail marketers of propane gas who deliver the fuel to the end user, propane producers, transporters and wholesalers, and manufacturers and distributors of equipment, containers and appliances. Propane gas is used in over 18 million installations nationwide for home and commercial heating and cooking, in agriculture, in industrial processing and as a clean air alternative engine fuel for both over-the-road vehicles and industrial lift trucks.

Part I

Pressure Test and Internal Visual Inspection Requirements for Cargo Tanks

NPGA appreciates PHMSA acknowledging the merit of our petition that would extend the requalification period for certain MC-331 vehicles used in the propane industry from 5 years to 10 years. The applicable vehicles are commonly referred to as bobtail vehicles and their requalification requirements are contained in 49 CFR 180.407(c). The technical substantiation for NPGA's recommendations are provided as part of NPGA's petition to the agency (Petition No. 1604).

Clearly, NPGA supports the proposed changes, and we refer to the research included with our petition to support the idea that these changes do not lessen the safety of the cargo tank. Although the focus of the research we provided to PHMSA was on safety, we did not address in detail the overall cost savings and net benefits to the industry. Therefore, we wish to do so here as requested by PHMSA in the NPRM {80 FR 3792}.

Requalification pressure tests (which typically consists of hydrostatic tests as opposed to pneumatic) can cost as much as \$3000 when taking into account the downtime of the bobtail vehicle and the labor and fuel to drive it to the testing shop or facility. NPGA estimates that there are approximately 18,000 of the type of MC-331 vehicles, i.e. bobtails, identified in our petition that would be eligible for the extension. This represents a total industry cost of about \$54 million to requalify these vehicles by hydrostatic test. If the proposed requirements are extended to 10 years, it would literally reduce the industry's costs by half, saving the industry approximately \$5.4 million on an annual basis.

In addition, there are other indirect costs associated with hydrostatic test requalification as noted below.

- These vehicles must be taken out of service for periods as much as a week in order to be requalified. For propane marketers, the loss of a bobtail during peak periods of propane demand could significantly hamper their ability to deliver critical winter heating fuel.
- The hydrostatic test introduces water into the cargo tank, which can be detrimental to the container.
- If the water is not completely removed, it will also impact the quality of the fuel itself.

While these indirect costs may be difficult to quantify, they are real and accrue in addition to the direct testing costs. The cost savings by extending the requalification period from five years to ten years will greatly benefit propane marketers, particularly those that are small businesses. These small business marketers comprise over 90% of all NPGA retail propane marketer members.

Part II

LPG Odorization

PHMSA seeks to establish more stringent requirements in the regulations for LPG odorization as a result of an incident that occurred in Norfolk, MA on July 30, 2010 {80 FR 3799}. The subsequent investigation identified odorant fade as a contributing factor to the incident.

The NPRM also refers to meetings PHMSA held on the subject of LPG odorization with various industry stakeholders including, among others, representatives of NPGA as well as the fire service. During one of these meetings, NPGA described the types of odorant injection processes commonly used and the types of circumstances that could possibly lead to the phenomenon of odorant fade such as use of new tanks or freshly cleaned tanks. NPGA also referenced the typical concentration level used for adding odorant, i.e. 1 lb of ethyl mercaptan per 10,000 gallons of LPG.

General Comments

The HMR currently requires odorization of LPG. PHMSA proposes to add new, more stringent requirements for odorization of railcars, cargo tanks and cylinders beyond the industry standard sniff test that would include specifying a performance standard to address ‘under odorization’ and ‘odor fade.’ {80 FR 3800} For purposes of Part II of this letter, the terms LPG and propane may be used interchangeably.

Throughout our discussions on this subject with PHMSA and with the fire service, NPGA has understood that additional requirements related to odorization of railcars may be appropriate. We have maintained this position because, to the extent it occurs, the circumstances that can lead to odorant fade are most likely to occur in railcars.

For example, a recently cleaned or brand new railcar may be loaded with LPG and properly odorized at a rail terminal, but then may sit on a rail siding for some period of time before it is ever delivered to a final destination. The lack of movement of the railcar would create a stagnant environment for the liquid fuel within the railcar and may possibly lead to the fuel losing some of its odorant, again particularly if the railcar had been recently cleaned or itself is brand new. Therefore, more stringent odorization requirements may be appropriate.

However, NPGA is concerned that PHMSA has extended these same requirements to include cargo tanks, and most notably, cylinders. While it may seem intuitive to simply apply the requirements to these additional containers, NPGA believes PHMSA is unaware of the impact this will have on retail propane marketers further downstream in the distribution chain. For the reasons noted below, the requirements, as proposed, will place an undue burden on retail propane marketers, particularly for the more than 90 percent of NPGA members designated as small businesses.

Cylinders – Section 173.304a

The language in proposed Section 173.304a(d)(5)(ii) specifies quantitative testing methods to measure the amount of odorant in LPG in the cylinder and requires corrective action be taken to ensure enough odorant remains in the cylinder during the course of transportation such as increasing the amount of odorant added to the LPG.

Quantitative Testing

Railcars are loaded with propane by rail terminal operators and odorized at the rail terminal prior to subsequent delivery downstream to a retail propane marketer. These railcars are significant bulk packagings and can carry as much as 30,000 gallons of propane.

Cylinders, however, can range in size from 20 pounds (< 5 gallons of propane) to a maximum of 1000 pounds water capacity (or 100 gallons of propane), and there are millions of propane cylinders in service in the United States with hundreds of thousands of daily fillings. As proposed in the NPRM, every one of these cylinder loadings would require the retail marketer to perform a quantitative test to ensure sufficient odorant. The operational and economic impacts would be staggering.

The *operational impact* on retail propane marketers would be massive as it would require an additional labor component that would significantly slow the process of loading each cylinder and hinder the marketer's ability to deliver the cylinders in a timely fashion. While all cylinder filling operations would be negatively impacted, this proposal would be particularly significant for cylinder exchange operations.

Further to this, the *economic impact* of this proposal as it pertains to cylinders would be enormous. For the quantitative tests, it is expected that the likeliest path to compliance would be through the use of stain tubes, requiring propane marketers to purchase massive quantities of stain tubes and store them onsite. It is highly doubtful there are currently enough stain tubes in the United States to fulfill such a requirement.

To illustrate the projected cost of compliance, stain tubes cost \$5 each, and one stain tube is required per test. Beyond the testing costs, there are additional labor costs and record-keeping costs, which at this time we estimate to be \$5 per cylinder. Given a conservative estimate of 200,000 cylinder fillings daily, we estimate the economic impact on the propane industry of the proposed quantitative testing requirements for cylinders would likely exceed \$480 million per year.

Other options for quantitative testing would be use of odorometers or gas chromatography. For gas chromatography, each retail propane marketer would need to purchase a gas chromatograph for each of their bulk plants or operating facilities (there are over 8,000 bulk plants total in the industry). This equipment can cost between \$60,000 to \$100,000, and, it would require hiring at least one or more new employees with the proper skill set to perform the analyses.

Alternatively, if the gas chromatograph analyses were performed at an outside laboratory, it would cost at least \$300 or more per sample analysis as well as the cost of shipping it to the laboratory. Also, the labor investment including taking the sample and readying it for shipment could be as much as 30-45 minutes per sample. Simply put, the use of gas chromatography as a method of performing a quantitative odorant test is just not a viable option for propane marketers.

Use of an odorometer would require each propane bulk plant or facility to purchase the device at a cost of approximately \$3500. The device would also need to be calibrated annually at a cost of about \$300. Each measurement would take about 20 minutes before moving to the next container. Also, it is not clear that odorometers can even be used for cylinders due to adaptability problems. Nevertheless, the operational impact would be huge.

Corrective Action

As proposed, the new regulatory language would require that propane marketers take corrective action in the event there is insufficient odorant. This effectively means that marketers would need to purchase and store quantities of ethyl mercaptan at their operating facilities. The number of propane marketers in the U.S. that possess or store ethyl mercaptan at their bulk plant sites is virtually negligible due to the hazards associated with the substance. Additionally, due to the expertise required to inject the odorant into any container, performance of this process should and must remain upstream prior to the fuel reaching a propane marketer.

Ethyl mercaptan is a difficult substance to store and inject into propane, and there is no currently available technology for a propane marketer to safely inject odorant into either bulk storage or individual cylinders. Insufficiently odorized propane is generally returned to large storage facilities for re-treatment. These costs for handling and documentation are also extensive.

To be clear, the propane industry unquestionably understands the importance of safety. However, NPGA is unaware of any incidents or occurrences of odor fade or lack of odorant in cylinders that would suggest the industry standard sniff test is unacceptable and that would warrant more onerous, cost-prohibitive regulatory requirements as proposed in HM-218H.

Therefore, given the aforementioned information, and in consideration of the overall cost/benefits analysis, NPGA urges PHMSA to delete the proposed odorization requirements applicable to cylinders as specified in § 173.304a(d)(5)(ii). Further, we also request PHMSA to delete the references to *thiophane* and *amyl mercaptan* contained in § 173.304a(d)(5)(i)(B) as neither of these substances are used as odorant for LPG.

Cargo Tanks and Portable Tanks – Section 173.315

NPGA also requests that PHMSA delete the language proposed in 173.315(b)(2). Similar to cylinders, we are not aware of any incidents or occurrences of odor fade or lack of odorant in MC-331s, i.e. cargo tank motor vehicles (CTMV), that would suggest the industry standard sniff test is unacceptable and that would warrant more onerous, cost-prohibitive regulatory requirements as proposed in the NPRM.

The amount of time that propane resides in the cargo tank of a CTMV is minimal, at best. It is not uncommon that the entire volume of such vehicles can be turned over two to three times per day and as much as five times per day during peak demand for propane, i.e. the winter heating season. The frequency of which this turnover occurs and the co-mingling of the fuel prevents the creation of a stagnant environment for the liquid fuel within the cargo tank and, effectively, precludes the chemical reactions that could lead to an odorant fade condition.

As with cylinders, the *operational impact* and *economic impact* on retail propane marketers of the proposed odorization requirements would be significant.

To illustrate the economic impact, there are approximately 28,000 CTMVs used in the propane industry to deliver fuel to the end user. If even only 75 percent of these are loaded only one time per day for transport and delivery of fuel to the customer, and each loading required quantitative testing to ensure a sufficient level of odorant, we estimate (using the previous stain tube cost estimates for testing and labor) the economic impact of the proposed testing requirements for cargo tanks to exceed \$50 million per year.

Again, the propane industry understands the importance of safety. However, given the aforementioned information, and in consideration of the overall cost/benefits analysis, NPGA urges PHMSA to delete the proposed odorization requirements applicable to cargo tanks as specified in § 173.315(b)(2). Further, we also request PHMSA to delete the references to *thiophane* and *amyl mercaptan* contained in § 173.315(b)(1)(ii) as neither of these substances are used as odorant for LPG.

Railcars – Section 173.314

As noted previously, NPGA has understood that additional requirements related to odorization of railcars may be appropriate due to the circumstances that can lead to possible odorant fade, notably those railcars that are brand new or have been recently cleaned and have sat idle for some period of time. To that end, NPGA recommends some slight revisions to § 173.314 as noted below:

- Delete the references to *thiophane* and *amyl mercaptan* contained in § 173.314(h)(1)(ii) as neither of these substances are used as odorant for LPG;
- Modify 173.314(h)(2)(i) to read as follows:
 - (i)Ensure quantitative testing methods are used to measure the amount of odorant in the liquefied petroleum gas:
 - (A) Prior to further shipment of any tank car filled with LPG and not delivered for 90 days;
 - (B) On any tank car transporting LPG that has recently been cleaned within the previous 30 days

- Delete 173.314(h)(2)(v) – Inspecting a tank car for signs of oxidation or corrosion effectively requires that the railcar be taken out of service;
- Move the language in (h)(2)(vi) up to become a new (h)(2)(v)
- Delete 173.314(h)(2)(vii) – The statement ‘address odorant fade’ is nebulous and is redundant to the other provisions already proposed in 173.314(h)(2);
- Break out the text in 173.314(h)(2)(iv) to read as follows:

(iv) Ensure quality controls measures are in place to make sure that:

- (A) Persons who receive tank cars that have been subjected to any condition that could lead to corrosion of the tank car or receive new or recently cleaned tank cars are notified of this information; and
- (B) A person filling these packagings implement quality controls measures so that potential odorant fade is addressed;

Summary

Part I: NPGA appreciates PHMSA recognizing the merits of our petition (P-1604) to extend the requalification period for certain MC-331 vehicles (*bobtails*) from 5 years to 10 years. The benefits to the industry are significant and would save the industry at least \$5.4 million annually over the 10 year period.

Part II: NPGA sincerely respects the concerns that have been expressed related to LPG odorization of railcars and the importance of safety within the industry. We also understand that additional odorization requirements for railcars may be appropriate to address these concerns. However, the proposed application of these same additional requirements to cylinders and cargo tanks will place a regulatory burden upon retail marketers to a level of which we believe PHMSA is unaware, which we’ve sought to highlight in our comments. The impact to the propane industry and the many small business retail marketers would be in the hundreds of millions of dollars. Again, NPGA urges PHMSA to delete the odorization requirements for cylinders and cargo tanks as specified above for the reasons noted.

Thank you for the opportunity to comment on these important issues. Please let us know if you have any questions.

Sincerely,



Michael A. Calderera
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