



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Avenue SE
Washington DC 20590

DEC 04 2017

Mr. David Hedrick
National Pipeline Safety Manager
AmeriGas Propane, LP
1173 Parkland
Lake Orion, MI 48360

Dear Mr. Hedrick:

In a May 9, 2017 letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), you requested an interpretation of 49 CFR Part 192. Specifically, you requested an interpretation on the odorization requirements of § 192.625(f) as it relates to liquefied petroleum gas.

You asked whether a verification of the concentration level in air of odorant in a combustible gas in a pipeline using an instrument is required for petroleum gas. You stated that the 2004 Edition of the National Fire Protection Association (NFPA) 58 requirement for liquefied petroleum allows odorant determined by sniff testing. Also, you mentioned that 49 CFR Part 173.315(b)(1) specifies the minimum addition ratio of odorants to liquefied petroleum gas.

You asked “Since both codes, National Fire Protection Association Pamphlet 58, Liquefied Petroleum Gas Code, and Title 49 Code of Federal Regulations specify the minimum addition ratios of certain odorants to LP Gases (propane in particular) for the gas to be readily detectible in air at a concentration of not over one-fifth the lower explosion level, if the amount of odorant used per LP Gas gallon meets the Code requirements and that amount is documented, and if sniff testing is an allowable measure to determine the presence of odorant, should operators of LP Gas pipeline distribution systems be exempted from the requirements of 192.625 (f) to use test instruments to determine the concentration level of odorant in the gas?”

49 CFR Part 173 governs the transportation of hazardous materials “shipment by air, highway, rail, or water, or any combination thereof.” It does not include regulations regarding the transportation of liquefied petroleum gas through a pipeline. Therefore, 49 CFR Part 173.315(b)(1) does not apply to an operator’s obligations for transporting liquefied petroleum gas through a pipeline distribution system. Liquefied petroleum gas pipeline distribution systems are regulated under 49 CFR Part 192, the pipeline safety regulations governing the transportation of natural and other gas by pipeline.

PHMSA regulates petroleum gas pipeline systems under 49 CFR § 192.11. Section 192.11 requires that each plant that supplies petroleum gas by pipeline to a natural gas distribution system must meet the requirements of Part 192 and NFPA 58 and 59 (2004) (192.11(a)). It also

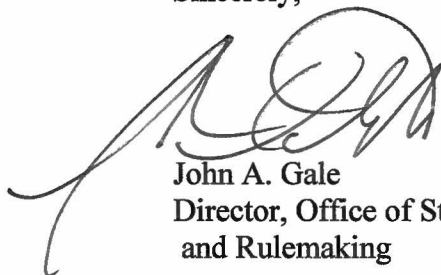
The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety provides written clarifications of the Regulations (49 CFR Parts 190-199) in the form of interpretation letters. These letters reflect the agency's current application of the regulations to the specific facts presented by the person requesting the clarification. Interpretations do not create legally-enforceable rights or obligations and are provided to help the public understand how to comply with the regulations.

states that each pipeline system subject to Part 192 that transports only petroleum gas or petroleum gas/air mixtures must meet the requirements of Part 192 and of NFPA 58 and 59 (192.11(b)). Finally, the regulation lays out a primacy provision stating that in the event of a conflict between the regulation and the standard, NFPA 58 and 59 prevail (§ 192.11(c)). However, this primacy provision does not excuse operators from following the Part 192 requirements. For instance, when NFPA 58 or 59 (2004) does not address a specific subject, then no conflict has occurred and the operator must follow the Part 192 requirements.

Gas odorization is governed by 49 CFR 192.625, which states that “combustible gas in a distribution line must contain a natural odorant or be odorized so that at a concentration in air of one-fifth of the lower explosive limit, the gas is readily detectable by a person with a normal sense of smell.” 49 CFR § 192.625(a). Under § 192.625(f) all operators must conduct periodic sampling of combustible gases using an instrument capable of determining the percentage of gas in the air at which the odor becomes readily detectable, except for master meter system operators.

Operators of liquefied petroleum gas pipeline distribution systems must comply with the requirements of Part 192, including its gas odorization regulations unless there is a conflict between Part 192 and NFPA 58 and NFPA 59. In this case, there is no conflict between Part 192 and NFPA 58 and NFPA 59. Therefore, under § 192.625(f), such operators must use test instruments to determine the concentration level of odorant in the gas. If we can be of further assistance, please contact Tewabe Asebe at 202-366-5523.

Sincerely,

A handwritten signature in black ink, appearing to read 'John A. Gale', is positioned above the printed name and title.

John A. Gale
Director, Office of Standards
and Rulemaking



May 9, 2017

U.S. DOT
PHMSA Office of Hazardous Materials Standards
Attn: PHH-10
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590-0001

REQUEST FOR INTERPRETATION

This correspondence is to request a formal interpretation and relief from of the requirements of 49 CFR Part 192.625 (f) as it relates to liquefied petroleum gas and verification of the concentration level in air of odorant in a combustible gas in a pipeline by the use of an instrument for such verification to assure the level is readily detectable at one-fifth the lower explosive limit of the gas.

According to 49 CFR Part 173.315 (b) (1):

1)Odorization. All liquefied petroleum gas shall be effectively odorized as required in Note 2 of this paragraph to indicate positively, by a distinctive odor, the presence of gas down to a concentration in air of not over one-fifth the lower limit of combustibility provided, however, that odorization is not required if harmful in the use or further processing of the liquefied petroleum gas, or if odorization will serve no useful purpose as a warning agent in such use or further processing.

NOTE 1: The lower limits of combustibility of the more commonly used liquefied petroleum gases are: Propane, 2.15 percent; butane, 1.55 percent. These figures represent volumetric percentages of gas-air mixtures in each case.

NOTE 2: The use of 1.0 pound of ethyl mercaptan, 1.0 pound of thiophane, or 1.4 pounds of amyl mercaptan per 10,000 gallons of liquefied petroleum gas shall be considered sufficient to meet the requirements of §173.315(b)(1). This note does not exclude the use of any other odorant in sufficient quantity to meet the requirements of §173.315(b)(1).

Furthermore, the 2004 Edition of the National Fire Protection Association Pamphlet 58, Liquefied Petroleum Gas Code, Section 4.2.1 reads:

All LP Gases shall be odorized prior to delivery to a bulk plant by the addition of a warning agent of such character that the gases are detectable, by a distinct odor, to a concentration in air of not over one-fifth the lower flammability limit.

4.2.3

If odorization is required, the presence of the odorant shall be determined by sniff testing or other means and the results shall be documented as follows:

- (1) When LPGas is delivered to a bulk plant*
- (2) When shipments of LPGas bypass the bulk plant*

And A.4.2.1 states:

Experience has shown that ethyl mercaptan in the ratio of 1.0 lb (0.45 kg) per 10,000 gal of liquid LP-Gas has been recognized as an effective odorant. Other odorants and quantities meeting the provisions of 4.2.1 may be used.

Since both codes, National Fire Protection Association Pamphlet 58, Liquefied Petroleum Gas Code, and Title 49 Code of Federal Regulations specify the minimum addition ratios of certain odorants to LP Gases (propane in particular) for the gas to be readily detectible in air at a concentration of not over one-fifth the lower explosion level, if the amount of odorant used per LP Gas gallon meets the Code requirements and that amount is documented, and if sniff testing is an allowable measure to determine the presence of odorant, should operators of LP Gas pipeline distribution systems be exempted from the requirements of 192.625 (f) to use test instruments to determine the concentration level of odorant in the gas?

Thank you for your consideration in this matter. Please do not hesitate to contact me at 215-970-4159 or by email at david.hedrick@amerigas.com if there are any questions or should you require additional information.

Thank you.

David Hedrick

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