American Gas Association

October 26, 2012

Max Kieba
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
East Building, 2nd Floor
1200 New Jersey Ave., SE
Washington, DC 20590

Dear Mr. Kieba:

Re: AGA Comments on the LEAK DETECTION STUDY – DTPH56-11-D-000001,

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 71 million residential, commercial and industrial natural gas customers in the U.S., of which 92 percent — more than 65 million customers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipeline companies, marketers, gatherers, international natural gas companies and industry associates. Today, natural gas meets almost one-fourth of the United States' energy needs.

AGA appreciates the opportunity to submit comments on the above referenced draft report. PHMSA only provided a few days to review and develop comments on this very comprehensive 269 page report. Therefore, AGA will limit its comments to highlighting a few issues contained in the report and how AGA believes the report should and should not be used.

When PHMSA requested comments on the scope of the study in March 2012, AGA expressed concern about having a study scope that attempted to analyze leak detection systems of hazardous liquid, gas transmission and gas distribution pipelines in one document. AGA stated:

> *The congressional requirements for conducting a leak detection study were expressly limited in the legislation to hazardous liquid pipelines. Task 3, 4, 5, and 6 of the PHMSA scope of work use the generic term pipeline, so it is not clear whether PHMSA is referring to only hazardous liquid pipelines or also gas transmission and distribution. Presenters in the PHMSA workshop discussed how vastly different leak detection varied between the three pipeline sectors. AGA questions*

whether one report can comprehensively address all three pipelines sectors and whether inclusion in one report would result in confusion to readers of the report.

AGA believes it's concerns were well founded, because while the study may be technically correct, the comparisons of the leak detection systems deployed for hazardous liquid, gas transmission and gas distribution are confusing, unwarranted, and of minimal technical value. The properties of the materials transported, and the operational conditions vary so greatly that there is little or no technical justification to compare the LDS of different pipeline sectors. The study found that the pipeline industry considers LDS differently depending on whether pipelines transport hazardous liquids or natural and other gas.[1] It is not merely that the industry considers LDS differently, they are completely different. The conclusion (Page 2-12) that "leak detection regulations in 49 CFR 195 – especially expressions of principles and procedures – apply in large part equally well to gas pipelines" is flawed and fails to recognize the fundamental differences in the physical properties of the different commodities and sectors (hazardous liquid, gas transmission and gas distribution). Additionally, in Page 2-9, the study further states "Practically all internal LDS technologies applicable to liquids pipelines apply equally well to gas pipelines also. Because of the much greater compressibility of gas, however, their practical implementation is usually far more complex and delicate". Here there is a clear over-generalization of the term "gas pipelines" which negates the differences between linear transmission pipelines and distribution lines that are networked and interconnected. It should be emphasized and noted that the two delivery systems function at widely different pressure ranges, pipe diameters and distances, and has been disregarded throughout the study.

AGA believes the sample set of 5 distribution operators interviewed for the study is an unrepresentative fraction of the actual operator numbers in the industry (5 out of ~1500), and that the study has chosen operators that would be considering both transmission and distribution systems together rather than solely LDC's. Page 2-9 of the study states that "Releases on gas distribution lines were more likely to ignite and more likely to explode than releases on gas transmission and hazardous liquids pipelines". Firstly, the term "explode" is not clearly defined and presented in the study. The implication here is an explosion resulting in a shock wave that requires detonation, whereas a natural gas leak may in fact just ignite and not result in an explosion.

[1] Leak study, Page 2.2

The foundation of leak detection in the gas distribution industry is based upon adding odorant to the natural gas as required by 49 CFR 192.625 odorization of gas. AGA has reviewed the document and nowhere is the term odorant and odorization used in the document. AGA has several publications on leak detection in the distribution industry and believes these specialized publications are of more value in assessing LDS in gas distribution than this study which compares distribution to hazardous liquids and gas transmission pipelines. In addition, the report fails to recognize that instrumented leakage surveys are conducted frequently over the pipelines by gas transmission and distribution operators as required by §192.706 and §192.723 respectively.

AGA knows that PHMSA must write a report to Congress regarding leak detection systems. The relevant portion of the legislation states:

> **Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011**
> **SEC. 8. LEAK DETECTION.**
> *(a) LEAK DETECTION REPORT.—*
> *(1) IN GENERAL. — Not later than 1 year after the date of enactment of this Act, the Secretary of Transportation shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure and the Committee on Energy and Commerce of the House of Representatives a report on leak detection systems utilized by operators of hazardous liquid pipeline facilities and transportation-related flow lines.*
> *(2) CONTENTS.—The report shall include—*
> *(A) an analysis of the technical limitations of current leak detection systems, including the ability of the systems to detect ruptures and small leaks that are ongoing or intermittent, and what can be done to foster development of better technologies; and*
> *(B) an analysis of the practicability of establishing technically, operationally, and economically feasible standards for the capability of such systems to detect leaks, and the safety benefits and adverse consequences of requiring operators to use leak detection systems.*

AGA urges PHMSA not to include any discussion of gas distribution leak detection systems in its report to Congress.

AGA has reviewed some of the testimony that was presented before both Houses of Congress during the pipeline safety act reauthorization. Congress thoughtfully limited the mandated leak study to hazardous liquid pipelines. AGA believes that the scope was limited by Congress because many of these pipelines transport incompressible fluids, which causes leaks to be difficult to detect at a variety of levels. Distribution pipelines and Intra-state gas transmission pipelines (generally) contain odorant, so even very small leaks are readily detected. Natural gas is a compressible fluid and large leaks are also readily

detected because of the noise associated with the release. This is supported by the analysis in the report of those detecting leaks, citing the public as 3-4 more times more likely to detect leaks than company personnel. Additionally, while operators strive to minimize the release of natural gas, its release does not result in acute environmental damage because natural gas is lighter than air and quickly dissipates upon release. Congress did not ask PHMSA to study the relative attributes of LDS in the three pipeline sectors and AGA sees no reason to provide a report to Congress that is more complex than they requested.

Finally, AGA acknowledges that the NTSB issued a safety recommendation to PHMSA regarding leak detection and included all three industry sectors. The National Transportation Safety Board (NTSB) issued the following safety recommendation to PHMSA in their San Bruno Pipeline Accident Report, PAR-11-01:

> **NTSB Recommendation P-11-10:**
> *Require that all operators of natural gas transmission and distribution pipelines equip their supervisory control and data acquisition systems with tools to assist in recognizing and pinpointing the location of leaks, including line breaks; such tools could include a real-time leak detection system and appropriately spaced flow and pressure transmitters along covered transmission lines.*

AGA notes that the overwhelming majority of gas distribution operators do not have SCADA systems. Additionally, many of the distribution operators that have a SCADA system use it for information collection, not pipeline flow or pressure control. AGA is willing to work with PHMSA to address the NTSB recommendation in a way that recognizes the real world differences between leak detection systems in the three pipeline sectors. If you have questions, please feel free to contact me.

Sincerely,

Philip Bennett

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