

**BEFORE THE
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C.**

Pipeline Safety: Request for Revision of a
Previously Approved Information Collection:
National Pipeline Mapping System Program



Docket No. PHMSA-2014-0092

**COMMENTS OF THE AMERICAN GAS ASSOCIATION
TO PHMSA NOTICE AND REQUEST FOR REVISION:
NATIONAL PIPELINE MAPPING SYSTEM PROGRAM**

July 22, 2016

Table of Contents

I.	Introduction	1
A.	Pipe Grade	3
B.	Wall Thickness	4
C.	Pipe Join Method	5
D.	Seam Type.....	5
E.	Maximum Allowable Operating Pressure (MAOP)	6
F.	In-line Inspection Able	7
G.	Last Assessment: Method & Year	8
H.	Mainline Block Valves: Location & Operating Mechanism	9
III.	PHMSA’s Estimated Burden Fails to Account for Developing, Acquiring, Installing and Utilizing the Technology Necessary to Comply with the Revised NPMS	9
IV.	The Revised NPMS Requests Data that is Inconsistent with Existing Recordkeeping and Regulatory Requirements and Duplicative of Annual Reporting	12
V.	The Revised NPMS Would Provide Minimal Practical Utility That Does Not Justify the Burden.....	13
VI.	Security Will be Undermined by PHMSA’s Revision to the ICR.....	15
A.	Enhanced Data Protection Program is Essential; DOT Must Take Full Responsibility & Liability Risks	15
A.	PHMSA Must Ensure Security of Sensitive Information Handling	17
B.	Cybersecurity of Online Databases – PHMSA’s Proposal Would Increase Vulnerability.....	18
C.	Excessive Publically Available Information in a Single Online Database Jeopardizes Security.....	19
VII.	PHMSA’s Revised NPMS ICR Exceeds the Scope of Its Authority and is Contrary to Law	19
A.	PHMSA’s Limited Authority to Act Pursuant to Section 60132, National Pipeline Mapping System	19
B.	PHMSA’s ICR Is an Improper Attempt to Evade Rulemaking Requirements	20

The American Gas Association (AGA), founded in 1918, represents more than 200 state regulated or municipal natural gas distribution companies. AGA members serve 95 percent of the 72 million natural gas customers, representing more than 160 million people in the United States. AGA and its members are committed to continuing to improve the high level of safety and the culture of safety compliance throughout the natural gas distribution industry. Numerous AGA programs and activities focus on the safe and efficient delivery of natural gas to customers. Safety is the number one priority of AGA members.

I. Introduction

AGA appreciates the opportunity to further¹ comment on the revisions PHMSA intends to make to information collected under OMB Control Number 2137-0596 titled “National Pipeline Mapping System (NPMS) Program”.² AGA is supportive of efforts to improve pipeline safety through the modernization of the NPMS and appreciates the revisions that PHMSA made in this latest iteration of the revised NPMS in response to some of AGA’s concerns. However, many of AGA’s concerns remain in PHMSA’s final revised NPMS that has been forwarded to the Office of Management and Budget (OMB) for review.

PHMSA’s revisions to the NPMS represent a complete overhaul of the NPMS. PHMSA’s revised NPMS collection identifies twenty-five unique pipeline attributes³, including the five existing mandatory attributes, that are to be provided by operators to PHMSA in a specific geospatial format, requiring a significant investment in time and resources to develop new data gathering systems and methods to maintain, format, and submit data. In addition, PHMSA has broadened the scope of the NPMS to include geospatial information for three new facility types: Pump and Compressor Stations, Gas Storage Facilities, and Breakout Tanks. The revised NPMS would significantly expand the scope of data collected for the NPMS and would impose substantial burdens on regulated parties to manipulate the data to be geospatially-referenced and to conform to the format requirements of PHMSA. These burdens are not adequately estimated or justified and serve to limit the practical utility and value of the information collected.

Information collection requirements that do not benefit pipeline safety are an unreasonable burden on pipeline operators, a misuse of valuable government and natural gas customer resources, and do not further the goals of the NPMS. AGA member utilities are spending significant resources on the modernization of aging pipeline infrastructure through activities that not only include the replacement and installation of pipeline assets, but also regulator stations, compressor stations, and automated valves. The resources of pipeline operators must be managed prudently by focusing on activities and actions that have a beneficial impact on pipeline safety performance. In addition, the costs to comply with the increased reporting requirement under the NPMS will primarily be borne by natural gas customers. Adding cost to a customer’s bill should only be done when it benefits the customer through increased safety or reliability. PHMSA’s revisions to the NPMS will not increase the safety or reliability of the pipeline that is used to transport gas to customer homes and businesses.

¹ These comments supplement previous comments submitted by AGA on PHMSA’s proposed revisions to the NPMS and are not a substitution of those previous comments or the material submitted with those comments. AGA’s initial comments were submitted on December 1, 2014 and subsequent comments were submitted on November 24, 2015. Those comments highlighted to PHMSA the significant security, feasibility, and pipeline safety concerns with the proposed modifications to the NPMS.

² 81 Fed. Reg. 40757 (June 22, 2016) (Request for Revision of a Previously Approved Information Collection: National Pipeline Mapping System Program (OMB Control No. 2137-0596)).

³ National Pipeline Mapping System Operator Standards Manual; DRAFT to accompany Information Collection 2137-0596 (published June 2016).

AGA is committed to working with PHMSA and other key stakeholders on modernizing the NPMS, and fully supports PHMSA bringing these stakeholders together to develop a viable path forward. An overhaul of this magnitude warrants substantial dialogue among industry, emergency responders, and Federal and State Regulators. While this dialogue began in PHMSA's public workshops, the workshops only allowed for a limited exchange of information and did not provide for the type of substantive conversation necessary to work through the complexities of collecting, maintaining, and submitting data to the NPMS in a manner that provides practical utility. The stakeholders that will be required to submit information and those that will use the information should all participate in the conversation to ensure that the overhaul of the NPMS enhances pipeline safety, while avoiding duplicative reporting requirements or introducing unwarranted national critical infrastructure security risks.

The magnitude of PHMSA's revisions to the NPMS more closely resemble a substantive rulemaking and have the potential to impose significant obligations and duties on the regulated community. AGA recognizes that the public has had the opportunity to comment on these revisions; however, AGA is concerned that PHMSA has bypassed its statutory obligation to consider the practicability, appropriateness and reasonableness of the proposed revisions to the NPMS, as well as the associated benefits and costs.

There is universal support for the modernization of the NPMS. However, PHMSA's notice in the June 22, 2016 Federal Register continues to impose substantial burdens on operators to submit data that will have minimal practical utility, do not advance pipeline safety, and are not necessary for PHMSA to perform its functions. AGA respectfully requests that OMB deny PHMSA's request to revise the information collection for the NPMS until AGA's concerns have been addressed.⁴ PHMSA has revised the NPMS in a manner that is not "the least burdensome necessary for the proper performance of the agency's functions to comply with legal requirements and achieve program objectives," "not duplicative of information otherwise accessible to the agency;" and will not have "practical utility."⁵

II. PHMSA has Failed to Address AGA's Comments Related to Specific Attributes

AGA appreciates the revisions that PHMSA has made in this most recent notice of the revised NPMS. However, AGA still has significant concerns regarding whether several of the remaining attributes are necessary for PHMSA's stated goals,⁶ there are attributes that are duplicative to other reporting requirements, and there is a significant burden associated with reporting these attributes. AGA describes its remaining concerns and recommendations in the detailed comments on specific attributes below. AGA further provides for OMB's convenience the table below that summarizes AGA's position on each of the attributes proposed in this iteration of the revised NPMS, and PHMSA's timeframe for submission of those attributes.

⁴ Because the existing information collection expired on June 30, 2016, PHMSA's request should no longer be considered a revision to an existing collection request. A request to extend an information collection must be submitted to OMB no later than 60 days before the expiration date. 44 U.S.C. §3507(h).

⁵ 5 C.F.R. § 1320.5(d)(1).

⁶ The collection of this information through the NPMS is not "mandated" by Congress. The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, (PL No: 112-90), provided PHMSA with the authority to collect geospatial and technical data that PHMSA determines to be necessary for the NPMS. PHMSA's determination of what information is to be collected is still subject to the requirements of the Paperwork Reduction Act, including that the information have practical utility, that the request minimizes the burden on responders, and is necessary.

PHMSA's ICR		AGA Position
Attribute	Phase	
Positional Accuracy	3	✓
Pipeline Status	1	✓
Commodity	1	✓
Decade of Installation	2	✓
Onshore / Offshore	1	✓
Gas HCA Segment	1	✓
Segment Could Affect an HCA	2	See API/AOPL Comments
Class Location	1	✓
Pipe Nominal Diameter	1	✓
Pipe Material	1	✓
Pipe Grade	1	Captured through other attributes*
Wall Thickness	1	Captured through other attributes*
Pipe Joining Method	1	✓ with suggested modification*
Seam Type	1	Captured through other attributes *
% SMYS	1	✓
MAOP	1	Captured through other attributes*
Coating	2	✓
In-Line Inspection Able	1	Not necessary for PHMSA's goals*
Year of Last Assessment	2	Not necessary for PHMSA's goals*
Method of Last Assessment	2	Not necessary for PHMSA's goals*
Mainline Block Valve: Location	2	✓ with suggested modification*
Mainline Block Valve: Operating Mechanism	2	Not necessary for PHMSA's goals*
Pump & Compressor Station: Location	1	✓
Gas Storage Field: Location & Type	2	✓ with suggested modification*
LNG Plant: Location, Capacity, Impoundment Location & Exclusion Zone	1	✓
Breakout Tank: Location, Commodity, Tank Size, & History	1	✓
FRP Sequence Number	1	See API/AOPL Comments

✓ Denotes that AGA supports this attribute's inclusion in the NPMS.

* See AGA's detailed comments on these specific attributes.

AGA is particularly concerned with PHMSA's lack of consideration and response to AGA's comments from the August 2015 proposal. Of the eight attributes with remaining concerns that are detailed below, PHMSA failed to acknowledge and address AGA's comments or elements within six of the eight. Moving forward, PHMSA must adequately justify why each requested attribute is necessary in geospatial format for inclusion in the NPMS.

A. Pipe Grade

AGA does not support the collection of Pipe Grade as it is unnecessary for PHMSA's goal of understanding the risk of a pipeline. Additionally, due to the nuances of this attribute, its inclusion can diminish the practical utility of the NPMS collection, while increasing the burden for submission.

AGA asserts that any knowledge gained through the inclusion of this attribute is accomplished by the % Specified Minimum Yield Strength (% SMYS) attribute. Pipe Grade is a variable in Maximum Allowable Operating Pressure (MAOP) calculations. Because MAOP is used to calculate %SMYS, which is an attribute that AGA supports including in the NPMS, pipe grade as an individual geospatial attribute is not necessary and redundant. Pipe Grade has no independent impact on the risk to a pipeline segment. PHMSA seems to agree with this comment in their notice “this information is essential in issues regarding pipe integrity, and is a necessary component in determining the allowable operating pressure of a pipeline.”⁷ AGA agrees that pipe grade is essential in evaluation of pipe integrity, but does not think that it offers any independent value when %SMYS is collected. PHMSA has offered no explanation or justification to support the independent inclusion of this geospatially-referenced attribute.

The nuances for this attribute must also be recognized as its inclusion impacts the practical utility of the NPMS. The pipe grade is representative of the yield strength of the pipe. API 5L pipe is often multi-stamped with several pipe grades that are inclusive of the actual yield strength. For example, a pipe with a yield strength of 75 ksi could have a triple stamping for X60, X65 and X70. The current proposal only allows for one pipe grade to be submitted. Operators will often default to the lowest, most conservative, grade marking. However, if PHMSA plans to utilize pipe grade to determine yield strength for risk assessment, the submitted attribute value will not represent the actual yield strength of the pipe material.

A significant number of gas transmission pipelines were installed prior to implementation of the 1970 pipeline safety regulations. Therefore, the federal requirement for operators to keep records did not exist prior to 1970. In addition, the pipeline safety regulations do not require that operators maintain records of pipe grade. If a pipe grade is unknown, the regulations allow for conservative values to be utilized during design formula calculations per §192.107(b)(2) – *Yield Strength (S) for steel pipe*.

If PHMSA provides reasoned justification for why this data in a geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

B. Wall Thickness

AGA does not support the collection of Wall Thickness as it is unnecessary for PHMSA’s goal of understanding the risk of a pipeline and would increase the burden to submitters. Similar to Pipe Grade, Wall Thickness is a variable in MAOP calculations. Because MAOP is used to calculate %SMYS, which is an attribute that AGA supports including in the NPMS, Wall Thickness as an individual geospatial attribute is not necessary and is redundant. Wall Thickness has no independent impact on the risk to a pipeline segment. PHMSA states that wall thickness is necessary because you cannot derive it from %SMYS when the pipe is of unknown or unlisted specification. However, because operators are reporting %SMYS, it is unclear why Wall Thickness is necessary to be reported or why PHMSA would find it necessary to back-calculate this attribute.

As stated previously, a significant number of gas transmission pipelines were installed prior to implementation of the 1970 federal pipeline safety regulations. In addition, the current pipeline safety regulations do not require that operators maintain records of wall thickness. If wall thickness is unknown, pipeline safety regulations allow for incomplete Nominal Wall Thickness records, per §192.109 – *Nominal*

⁷ 81 Fed. Reg. 40760

wall thickness (t) for steel pipe. By allowing for operators to make conservative assumptions, PHMSA's regulations recognize that this record is not available for all pipelines. AGA reminds PHMSA that any attribute required by the NPMS beyond the existing comprehensive regulatory requirements increases the burden for pipeline operators to comply with the NPMS.

PHMSA has stated in their notice that this "information is especially critical for determining the relative risk of corrosion."⁸ This reasoning is fundamentally flawed. The risk of corrosion is dependent upon many variables including the pipeline's operating environment, cathodic protection levels, gas quality, and coating levels. These variables are not collected through the NPMS, nor should they be. As a result, obtaining wall thickness will not enable PHMSA to understand the risk of corrosion.

If PHMSA provides reasoned justification for why this data in a geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

C. Pipe Join Method

AGA is concerned that there is limited incremental pipeline safety benefit in the inclusion of this attribute in the NPMS.

AGA proposed that this attribute be submitted on a predominant basis as stated in its November 24, 2015 comments. Allowing for a predominant based submission would eliminate confusion on how to submit welded pipelines with appurtenances that are joined by a varying joining methods. While PHMSA acknowledged AGA's request that this attribute be submitted on a predominant basis, PHMSA did not accept this request and did not provide a reason for disagreeing. AGA feels strongly that allowing operators to respond to this attribute on a predominant basis will significantly lessen the burden associated for this attribute. For example, under the NPMS, in the case where an entire pipeline segment is joined by welding, but there is flanged valve at the outlet of the pipe (a common and accepted practice), an operator would have to dynamically segment that one-foot portion of the pipe and identify it as flanged. Allowing the use of "predominant" would eliminate the need to dynamically segment this one-foot pipe segment and lessen the submittal burden.

Another solution would be to remove "F=flanged" as an option for this attribute, as AGA previously encouraged PHMSA to do. Most welded pipelines contain a few flanged connections (e.g. isolation flanges or at valves), but AGA is unaware of any pipelines completely joined solely by flanges in operation. If there happens to be one in existence the operator can select "O=other" and have a further conversation with PHMSA staff. It should be noted that PHMSA did not address AGA's other concerns or suggestions.

D. Seam Type

AGA does not support the inclusion of this attribute in the NPMS. There is no recordkeeping requirement that obligates operators to maintain records of seam type and it would be incredibly burdensome for operators to retroactively obtain this information for existing pipelines. PHMSA has not acknowledged or addressed this burden in any of PHMSA's notices on the NPMS. Furthermore, PHMSA failed to acknowledge AGA's November 2015 comments on this pipeline attribute in the June 2016 notice.

⁸ 81 Fed. Reg. 40760

In the August 2015 notice, PHMSA stated that “this information is used to determine which type of integrity management inspection assessment should apply, is important for risk analysis due to certain time-dependent risky seam types, and is used to confirm MAOP.” AGA agrees with PHMSA’s assessment of the usefulness of this data attribute. However, AGA disagrees that it is a necessary attribute for PHMSA to obtain through the NPMS data collection. An inquiry of seam type and whether the appropriate assessment method has been used is best addressed by inspectors during state and federal audits. The nuances that go into these attributes and integrity management decisions would be lost when submitted to the NPMS and would not provide PHMSA with accurate data to perform a risk analysis. The visual representation of seam type in the NPMS is not needed to meet PHMSA’s stated reasons for collecting this information.

Pipeline operators have the responsibility through Transmission Integrity Management to assess and mitigate risk on pipelines. PHMSA’s reasoning for collecting this information suggests that PHMSA does not believe operators are adequately performing integrity management. If this conclusion is accurate, PHMSA needs to address this concern during a federal or state audit or through an official rulemaking that modifies Transmission Integrity Management, not impose general burdens on all operators for mere speculation of an issue.

As stated previously, a significant number of gas transmission pipelines were installed prior to implementation of the 1970 pipeline safety regulations. In addition, the pipeline safety regulations do not require that operators maintain records of seam type. If seam type is unknown, §192.113 – *Longitudinal Joint Factor (E) for steel pipe*, allows operators to default to a conservative value when calculating the Design Formula for steel pipe.

If PHMSA provides reasoned justification for why this data in geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

E. Maximum Allowable Operating Pressure (MAOP)

Although operators have a deep understanding of the MAOP to their pipelines, the inclusion of this attribute coupled with the request for % SMYS is an example of where PHMSA is not reducing the Information Collection burden for operators, but instead is increasing it. MAOP is a factor that goes into the % SMYS calculation, an attribute that AGA supports in the NPMS. Collection of % SMYS provides PHMSA with the pipeline risk information that it needs to achieve its goals. Every additional pipeline attribute required for submission to the NPMS, is an additional burden for pipeline operators, and therefore the number of attributes needs to be minimized.

PHMSA’s explanation for inclusion of this attribute in the 2015 proposal and the June 2016 notice remained the same:

- (1) PHMSA inspectors identified [MAOP] as an important element for incident analysis.
- (2) MAOP / MOP helps enforce pressure levels between segments which are rated for different pressures.
- (3) PHMSA engineers further noted that it is useful for determining the potential impact radius.

AGA disagrees with PHMSA's reasoning on why the MAOP should be collected through the NPMS and outlined in the November 2015 the reasons why PHMSA's explanations are not substantive. None of these comments were acknowledged or addressed by PHMSA.

- (1) If PHMSA believes the MAOP is useful information during incident analysis, the data should be collected through Incident Reports, such as the *Incident Report – Natural and Other Gas Transmission and Gathering Pipeline Systems Report* (OMB NO: 2137-0522). PHMSA has not identified why it considers MAOP important for incident analysis and as such, AGA cannot provide PHMSA with any meaningful comment. However, AGA reminds PHMSA that the use of NPMS information for a purpose outside of the specific purposes of the NPMS would be contrary to Congressional intent.
- (2) PHMSA's second reason for the inclusion of MAOP in the NPMS is simply a statement of the utility of MAOP for operating pipelines. In no way does this statement detail PHMSA's intended use of this pipeline attribute. Operators are required to comply with §192.195 – *Protection against accidental overpressuring*. If PHMSA would like to question an operator's ability to comply with this section of pipeline safety regulations, they should do so during audits or inspections, not through analysis of data in the NPMS.
- (3) If an operator utilizes "Method 2" under the definition of High Consequence Area (HCA) in §192.903 – *What definitions apply to this subpart?*, then the operator must define the potential impact radius (PIR) of the pipeline. Again, if PHMSA believes that an operator is inaccurately calculating this information, this should be addressed in an audit, not superficially through analysis of NPMS data. PHMSA staff should not be attempting to perform operationally significant calculations on pipeline segments without consulting directly with the pipeline operator.

If PHMSA provides reasoned justification for why this data in geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

F. In-line Inspection Able

This pipeline attribute has no bearing on PHMSA's stated goals of improving pipeline safety, can diminish the practical utility of the NPMS, and is directly duplicative of information collected through PHMSA's Gas Transmission & Gathering Lines Annual Report⁹.

The question posed by PHMSA for this attribute is, "Can commercially available devices (pigs) travel, inspect the entire circumference and wall thickness of the pipe, and record or transmit inspection data in sufficient detail or further evaluation of anomalies?" Operators are instructed to select yes or no. AGA believes this question is too complicated and subjective to be included in the NPMS. Each operator may have a different determination method when answering the question PHMSA has posed.

PHMSA cites two NTSB Recommendations from the 2015 safety study, *Integrity Management of Gas Transmission Pipelines in High Consequence Areas*, as the driver for the inclusion of this pipeline attribute.

P-15-18: Require that all natural gas transmission pipelines be capable of being in-line inspected by either reconfiguring the pipeline to accommodate in line inspection tools or by the use of new technology that permits the inspection of previously uninspectable pipelines; priority should be given

⁹ OMB No. 2137-0522. Part R – Gas Transmission Miles by Pressure Test (PT) Range and Internal Inspection.

to the highest risk transmission pipelines that considers age, internal pressure, pipe diameter, and class location.

P-15-20: Identify all operational complications that limit the use of in-line inspection tools in piggable pipelines, develop methods to eliminate the operational complications, and require operators to use these methods to increase the use of in-line inspection tools.

The inclusion of the “ILI_ABLE” yes/no attribute in no way helps PHMSA address NTSB Recommendations P-15-18 and P-15-20. This binary information presented in a geospatial format will not assist PHMSA in determining the operational complications that limit the use of ILI tools and the configuration modifications necessary to receive ILI tools. Furthermore, the progress made towards making all lines capable of receiving in-line technology can be determined through the reporting to the Annual Report. PHMSA has offered no explanation as to why this information also is needed geospatially that would justify the significant burden in submitting this attribute. AGA has offered and continues to welcome coordination with PHMSA on addressing these Recommendations. AGA would like to offer a venue to provide specific examples of the configuration and operational complications operators are challenged with when running ILI tools.

Due to the varying interpretations on the submission of this attribute, it will diminish the practical utility in tracking the progress on NTSB recommendations and can inhibit PHMSA from understanding the risk to a pipeline. Furthermore, the NTSB recommendations do not require PHMSA to geospatially quantify pipelines that are in-line inspection able.

Additionally, technology improvements and advancements are allowing more and more pipelines to be inspected internally. This issue is at the forefront of the Safety of the Gas Transmission and Gathering Lines Proposed Rule and should be harmonized with the progress of that rulemaking.

If PHMSA provides reasoned justification for why this data in geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

G. Last Assessment: Method & Year

AGA appreciates PHMSA’s recognition of the extreme burden associated with the 12 attributes that originally encompassed these two attributes. However, AGA believes that the year and method of the last pipeline assessment are still not necessary for PHMSA to achieve its stated goals and is duplicative of information submitted to PHMSA through Annual Reports¹⁰. PHMSA has offered no explanation as to why this data presented in geospatial format is necessary in addition to the tabular data presented in Annual Reports. Furthermore, PHMSA has not explained how “assessment method” would improve its risk analysis. PHMSA has approved the use of multiple assessment methods, all of which are expected to result in the same level of integrity management. There should be no distinctions in risk among the methods. AGA has similar concerns for “assessment year.” Operators have performed assessments in compliance with 49 C.F.R. § 192 – Subpart O. If PHMSA is concerned that an assessment has not occurred in a timely manner, the appropriate course of action would be to initiate an audit or inspection of that operator –

¹⁰ OMB No. 2137-0522. Part F – Integrity Inspections Conducted and Actions Taken Based on Inspection.

not a universal request of all operators to submit this information to the NPMS. AGA believes that this geospatially-referenced attribute is unnecessary, burdensome, and does not improve pipeline safety.

H. Mainline Block Valves: Location & Operating Mechanism

In AGA's November 2015 comments, AGA proposed that the requirement for this attribute be limited to Mainline Block Valves designated as emergency valves. Existing regulations already designate the appropriate spacing of block valves on transmission pipeline systems; therefore, the location of these valves is already known to PHMA and the identification in geospatial format through the NPMS is unnecessary. AGA also provided specific edits to errors within Appendix A.3 found in the DRAFT Operator Standards Manual for the NPMS that accompanied PHMSA's August 2015 proposal. PHMSA acknowledged one of these suggestions but failed to respond to it and did not address the remainder of AGA's recommendations. Fundamental flaws persist in Appendix A.3 that PHMSA needs to address should Mainline Block Valves remain in the NPMS.

AGA appreciates PHMSA designation of this information as SSI, but is concerned with PHMSA's intended use for this data during emergency situations. AGA questions how PHMSA plans to distribute this information to emergency responders and local officials while also keeping it SSI compliant. Furthermore, AGA does believe there is a significant benefit in first responders having access to Mainline Block Valve location information because non-company personnel are not qualified under the Operator Qualification requirements¹¹ and regulations to operate such valves. Because first responders are not able to independently determine the consequences of closing a Mainline Block Valve, AGA does not support the inclusion of non-emergency valve locations in the NPMS. Providing this information to emergency responders could suggest that emergency responders are to operate such valves and could have a significant detrimental safety impact in an emergency situation.

AGA members identified Mainline Block Valves as an attribute that is extremely burdensome to submit as most operators do not have this attribute in a Geographic Information System (GIS). Instead it is quite often housed in a separate database that allows for other functionalities, such as work order management. A large burden is associated with the very distinct valve types that PHMSA is requesting operators to assign.

If PHMSA provides reasoned justification for why this data in geospatial format is necessary for inclusion in the NPMS and can justify the burden on operators to submit the information, AGA requests that this attribute be included in Phase 3 of the NPMS. AGA believes that this time would be necessary to allow operators to review, verify and collect records related to this data point and perform the necessary data manipulation for inclusion in the NPMS.

III. PHMSA's Estimated Burden Fails to Account for Developing, Acquiring, Installing and Utilizing the Technology Necessary to Comply with the Revised NPMS

PHMSA estimates the total annual burden associated with the Revised NPMS to be 171,983 hours.¹² PHMSA continues to offer no explanation or substantiation of its estimated burden, despite comments requesting the Agency to do so. PHMSA's lack of an explanation makes it impossible for stakeholders to

¹¹ 49 C.F.R. 192 – Subpart N: Operator Qualification

¹² 81 Fed. Reg. 40765.

provide meaningful review of PHMSA's estimate.¹³ For example, given that the Revised NPMS would be implemented in three phases, it is unclear which phases are included in the burden estimate, whether the burden includes only the Phase 1 or whether it includes all three phases. Nonetheless, AGA continues to believe that PHMSA's estimate significantly misstates the true impact this ICR would have on industry.

The PRA requires that burden estimates be based on "the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency, including:

- (i) Reviewing instructions;
- (ii) Developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information;
- (iii) Developing, acquiring, installing and utilizing technology and systems for the purpose of processing and maintaining information;
- (iv) Developing, acquiring, installing and utilizing technology and systems for the purpose of disclosing and providing information;
- (v) Adjusting the existing ways to comply with any previously applicable instructions and requirements;
- (vi) Training personnel to be able to respond to a collection of information;
- (vii) Searching data sources;
- (viii) Completing and reviewing the collection of information; and
- (ix) Transmitting, or otherwise disclosing the information."¹⁴

What is clear from the Paperwork Reduction Act regulations is that the time and expense associated with acquiring, developing and utilizing technology for the purpose of the information collection must be accounted for in the estimated burden. AGA continues to believe that PHMSA's estimate fails to account for the cost and burden associated with acquiring, developing and utilizing the technology that would be necessary to comply with the Revised NPMS.

The Revised NPMS would require the reporting of a significant number of geospatially referenced pipeline data points, as well as pipeline positional accuracy with increased accuracy. These requirements in effect require that operators use a GIS to maintain and report the requested data. There is no regulatory requirement that operators maintain or operate a GIS, and there is no requirement that operators maintain the requested data in a geospatial format. AGA does not believe that PHMSA has adequately accounted for operators acquiring the data in a geospatial format, implementing a GIS where they do not exist, or modifying a company's existing GIS to submit the required data in the specific format PHMSA is requiring.

¹³ Since its last proposed revision of the NPMS, PHMSA has dramatically decreased the estimated total annual burden from 335,124¹³ hours to 171,983 hours.¹³ Given PHMSA's lack of explanation regarding its burden calculation, AGA can only surmise that the decrease is the result of PHMSA eliminating a number of attributes. PHMSA's current burden estimate of 171,983 nonetheless is ten times the burden estimate associated with the last approved ICR for the NPMS (16,312 hours). National Pipeline Mapping Program, Information Collection, http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=201309-2137-001&icID=26822. Although AGA believes that PHMSA's current estimate misstates the true burden, the difference between the burden estimates demonstrates how dramatically PHMSA intends to expand the NPMS.

¹⁴ 5 C.F.R. § 1320.3(b)(1).

Although many operators do in fact have a GIS platform, these platforms were developed for the purpose of operating their system. Each operator's platform is unique in the attributes it contains, the purpose it serves, and the functions it can perform. In order to comply with the Revised NPMS, operators will need to take significant steps, including developing a GIS platform from scratch or modifying their current GIS platform, to incorporate and geospatially link the requested data. Even if an operator's GIS platform contains the requested attributes, they likely are not stored in a manner that would allow the operator to report the data using PHMSA's "acceptable values" for each attribute. In essence, the prescriptive GIS requirements of the Revised NPMS provide operators with no choice but to develop a GIS platform specifically tailored for the purpose of reporting to the NPMS. There is a significant cost associated with developing a GIS platform. AGA continues to believe that PHMSA has not captured or recognized this significant cost in its burden estimate.

In addition to the burden associated with the GIS platform, each requested geospatially-referenced attribute imposes a significant burden on operators. In response to PHMSA's prior proposed revisions to the NPMS, commenters, including AGA, provided substantive estimates of the significant compliance costs and burden operators expected as a result of the revised NPMS. Based on a survey of AGA member companies, AGA estimated that for a company that *already* has a robust GIS platform, the cost to upgrade the positional accuracy component alone could be up to \$4,000 per mile. AGA members operate nearly 75,000 of the 300,000 miles of gas transmission pipeline.

Although PHMSA acknowledged that operators commented on the expected burden, PHMSA has not provided any substantive response or revision to address or allay these concerns. PHMSA proposes to allow operators to have seven years to submit position accuracy data. AGA appreciates PHMSA's recognition that additional time was necessary for this attribute and supports the positional accuracy attribute as proposed. However, PHMSA continues to misunderstand the significant burden associated with the remaining attributes.

PHMSA makes the unsupported assumption that for attributes supported by industry, the information is available in operators' GISs and can be submitted during "Phase 1," the next reporting year after the effective date, which could be as early as 2017. The remaining attributes would be submitted in "Phase 2," just three years after the effective date.¹⁵ Many of the attributes that PHMSA includes in Phase 1 do not appear to be supported by industry, e.g., pipe grade and wall thickness, and PHMSA has made no alternative justification for including these attributes in Phase 1. The availability of this information in operator's GIS was not the basis for AGA's support of attributes. Instead, AGA looked at what was PHMSA's purpose for the information and supported those attributes that were reasonable in meeting those purposes. Support of attributes does not mean that they can be submitted, in a geospatial format, within one year.

AGA encourages OMB to require that PHMSA provide a transparent and accurate estimate of the potential burden associated with the NPMS.¹⁶ It is impossible to make any determination on whether

¹⁵ OMB's approval of an information collection is limited to a three-year period. 44 U.S.C. §3507(g). As such, it is not clear what aspects of the revised NPMS PHMSA is submitting to OMB for approval, since the revised NPMS includes three phases of data collection that would extend through 2024.

¹⁶ In addition to describing the steps the agency has taken to reduce the collection burden generally, the PRA requires that an agency certify to OMB that the ICR reduces the burden on small entities through techniques such as differing compliance or reporting requirements or clarification or exemptions from coverage. 5 C.F.R. §1320.9(c). In the last approved ICR, PHMSA estimated that of the 894 respondents, 625 were small entities. AGA

PHMSA's Revised NPMS is the least burdensome way of obtaining the information, or whether the burden justifies the practical utility, until a true and accurate burden estimate is provided.

IV. The Revised NPMS Requests Data that is Inconsistent with Existing Recordkeeping and Regulatory Requirements and Duplicative of Annual Reporting

PHMSA's revised NPMS is inconsistent with the existing reporting and recordkeeping practices required of operators. Many of the attributes in the revised NPMS relate to pipeline material and construction properties. For example, PHMSA is requesting that operators submit "pipe grade," "wall thickness," "pipe joining method," and "seam type" to the NPMS. However, there is no regulatory requirement that operators maintain records or documentation of this information. In addition, the majority of pipelines in service today were installed decades ago, prior to modern reporting and recordkeeping capabilities. Paper records documenting these properties were not required by the regulations to be maintained and given the age of the system and the significant number of mergers and acquisitions within the industry, many operators may not have records related to these properties.

PHMSA's recently proposed Safety of Gas Transmission and Gathering Pipelines Rule highlights the disconnect between the Revised NPMS and the existing regulations. In the Gas Transmission Rule, PHMSA has proposed to add several recordkeeping requirements that would require operators to maintain records of material and construction properties *for new pipelines*.¹⁷ However, there is no similar requirement for existing pipelines.¹⁸

PHMSA seems to implicitly acknowledge the disconnect by adding an "unknown" response for many of these material and construction property attributes. However, given that a record of this information is not required to be maintained for existing pipelines that are reported under the NPMS, it is unclear what practical utility PHMSA will gain from responses of "unknown."

Furthermore, there is no existing obligation that operators maintain a GIS or that data be maintained in a geospatial format. However, the Revised NPMS would require the reporting of a significant number of geospatially referenced pipeline data points, as well as pipeline positional accuracy with increased accuracy. These requirements in effect require that operators use a GIS to maintain and report the requested data.

Because PHMSA's revised NPMS requests information that is not not required to be maintained by the regulations, or stored in a format that requires the use of technology that meets specific technical specifications, PHMSA's revised NPMS is inconsistent with its existing recordkeeping requirements and

does not believe that the number of small entities subject to the NPMS has changed. However, PHMSA has not identified whether the revised NPMS will impact the same number of small entities, the burden on these small entities, nor the steps the Agency has taken to minimize this burden. See National Pipeline Mapping Program, Information Collection, http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=201309-2137-001&icID=26822.

¹⁷ See 81 Fed. Reg. 20722, 20282 (April 8, 2016) (proposed §192.67, §192.127, §192.205).

¹⁸ To the extent that PHMSA revised NPMS is interpreted as imposing new recordkeeping requirements on pipelines, AGA notes that PHMSA has not provided any length of time for which the records would need to be maintained, 44 U.S.C. §3506(e)(3)(F). PHMSA also is prohibited from regulating the design, installation, construction, initial inspection, and initial testing, including documentation, of existing pipelines. 49 U.S.C. §60104(b).

practices.¹⁹ In essence, it the revised NPMS is creating a new regulatory burden without going through the regulatory process.

The revised NPMS also requests information in a specific geospatial format that is duplicative of information accessible to PHMSA in alternative formats. The NPMS ICR requests numerous attributes and data points that can be found in the PHMSA Gas Transmission & Gathering Lines Annual Report.²⁰ Specifically, the request seeks information pertaining to the pipeline material, Inline Inspection ability, % SMYS, and cathodic protection, all of which are available to PHMSA, albeit in an alternative format, through the Annual Report and during audits or inspections. PHMSA recognizes the duplicity of much of this information and states that it will seek to reduce duplication *after* data has been collected through the revised NPMS.²¹ However, PHMSA provides no assurance of when or if that would occur. PHMSA own statements demonstrate the duplicative nature of the revised NPMS.

V. The Revised NPMS Would Provide Minimal Practical Utility That Does Not Justify the Burden

“Practical utility” is defined as “the actual, not merely the theoretical or potential, usefulness of information to or for an agency, taking into account its accuracy, validity, adequacy, and reliability, and the agency’s ability to process the information it collects . . . in a useful and timely fashion.”²² PHMSA fails to explain how its proposed ICR would have actual practical utility. In the latest iteration of the Revised NPMS, PHMSA continues to provide broad and often lofty goals and purposes for the newly requested attributes. However, PHMSA fails to provide any substantive discussion on how it intends to achieve these goals, and, more importantly, how each requested attribute in geospatial format will achieve these goals. Given the deluge of data that PHMSA has requested, AGA believes that PHMSA will be not be able to analyze and manipulate the data without a significant modification to the current NPMS platform and a significant increase in federal government personnel to scrub and analyze the data.

PHMSA has not addressed how the agency intends to respond to the data inconsistencies that inherently will result from converting data from numerous company’s records (including digital and hard copy records) to ensure that the data is useful in meeting PHMSA’s stated purpose for the data.

PHMSA appears to misunderstand the diversity of GIS throughout the pipeline industry and fails to recognize that not every pipeline operator has a GIS. For those that do, each and every GIS is distinct and different. It is built on a unique platform and contains pipeline attributes selected by the company for the purpose of addressing the needs of operating its pipeline system. Some companies may simply use GIS as a digital map of their system, while others may use GIS for outage planning during emergencies, and still others may choose to use it for risk management. In each of these scenarios, operators have structured their GIS and incorporated those pipeline attributes that are necessary to achieve their goals. This results in the thousands of different GIS that exist within the pipeline industry. PHMSA is now trying to take all of those GISs and merge them into one. This is an enormous undertaking.

It takes the average pipeline operator upwards of 4 years to develop a GIS (with most likely only a sampling of the attributes PHMSA has requested). Now, PHMSA is proposing to annually create a national GIS. PHMSA has provided guidance to operators on how to merge their data into a singular format. While

¹⁹ 44 U.S.C. § 3506(c)(3)(E).

²⁰ DOT PHMSA Annual Report for Natural and Other Gas Transmission and Gathering Pipeline Systems. OMB No. 2137-0522.

²¹ 81 Fed. Reg. 40758.

²² 5 C.F.R. § 1320.3(l).

this methodology appears to be worthy on paper, industry is concerned that it has not been proven in practice, and PHMSA has not provided sufficient response to allay these concerns.

For many of the attributes that PHMSA requests, the applicable code provisions allow operators to use assumed or calculated values based on a conservative engineering judgment. Some operators may have actual values, whereas some operators may use a conservative assumed or calculated values. These inconsistencies will prohibit PHMSA from utilizing the information within the NPMS for risk based audits and inspections, one of the stated intents for the data. Similarly, because operators utilize different base layers to create their GIS and the high degree of variability among those base layers, the data submitted to the NPMS, although accurate relative to the operator's base layer, may not be accurate relative to another operator's data. Any conclusion made from information provided to the NPMS will be flawed and often inaccurate.

During PHMSA's November 18, 2015 public NPMS Operator Technical Workshop, NPMS staff encouraged the utilization of Linear Referencing Systems (LRS) for NPMS submissions. This is due to the fact that the NPMS itself is an LRS and thus the operators' data can be more easily managed and published by PHMSA if also submitted in a LRS format. The very nature of GIS technologies led to numerous GIS platforms being utilized throughout the pipeline industry. However, there is no regulatory obligation for an operator to have a GIS, have specific data in a GIS, much less have this data in a specific LRS format. Of those operators that developed GIS, many do not use LRS and intend to submit data on the newly requested attributes in the traditional non-LRS format. The submission of data in the traditional format will lead to significant segmentation of pipeline systems in the NPMS, which will take substantial time for NPMS staff to process. This time consuming data manipulation in and of itself reduces the public utility of the information being submitted. Both the delay in the publication of the information and the potential for inaccuracies due to data manipulation are in direct conflict with the goal of modernizing the NPMS. PHMSA's desire to have the information in its requested geospatial format disproportionately shifts the costs and burdens onto the public, is not the least burdensome method, and would impose significant burden on many operators that already have GIS, but not in the specific platform requested by PHMSA.

In addition, PHMSA has not addressed how it will make use of the submitted data, including making the data available to state regulators and emergency responders, in a timely and useful manner. Currently, it takes PHMSA up to six months to make available NPMS updates with only two pipeline specific attributes in the current NPMS. PHMSA's request would result in a significant expansion in the scope of data it collects, yet PHMSA has not addressed how it intends to process this data so that it can be available in a timely manner.

We are additionally concerned with the incredible burden this information collection request will place on PHMSA. When operators expend the resources, both in time and costs, the expectation is that the expenditure will result in improvements to pipeline safety. Unfortunately, operators will see no net benefit in the safety and reliability of their system through this exercise. The primary pipeline safety benefit that may result from submitting this information to PHMSA through the NPMS will be PHMSA's ability to more efficiently inspect the industry. In order to do this, PHMSA will need to seamlessly integrate thousands, if not millions, of data points from all 1,221 submitters into one geospatial system of record. This includes the secure storage of the information submitted, the data manipulation that is necessary with the information collection request, the manpower necessary to analyze this information, and the ability to effectively translate this analysis to the manner by which they regulate. This would represent a tremendous challenge for any government agency. If PHMSA is unsuccessful, then the information collection request has no practical utility.

AGA encourages OMB to ensure that PHMSA has adequately thought through the complexities of its ICR to ensure that any data collected will have practical utility.

VI. Security Will be Undermined by PHMSA's Revision to the ICR

PHMSA is responsible for assuring the safety of the public and the protection of the environment through development and enforcement of integrity standards for pipeline owners and operators. PHMSA is proposing to require pipeline owners and operators to disclose locational data of national critical assets alongside of performance and capacity data to be aggregated and stored in the NPMS, a web-based application to which access would be controlled by a third party vendor or the government. The asset owners and operators consider this detailed data to be security-sensitive and question whether there is good cause to aggregate these data nationally and store the data online in a single database. It is critical that PHMSA work with the Department of Homeland Security (DHS) to do everything possible to prevent sensitive information from getting into the wrong hands.

Although PHMSA improved upon some of the security concerns previously raised about centerline positional accuracy and throughput data, AGA continues to maintain that the dramatic increase in the number of requested pipeline attributes — which are considered by pipeline operators to be in the aggregate sensitive information and that will be made available online in a single database — creates a significant security risk that does not presently exist.

AGA encourages OMB to acknowledge that the compilation of this data presents an attractive target for nefarious actors seeking to carry out cyber or physical attacks against pipeline infrastructure and require PHMSA to take the necessary precautions to protect this information. These include that PHMSA should be prepared to respond to a potential database breach and data exfiltration and should be held accountable for these potential events. PHMSA should provide enhanced security measures and controls than those already employed by the owners, operators, and users of the NPMS.

The following sections detail AGA's security concerns regarding PHMSA's NPMS ICR as applied to: the need for enhanced data protection; sensitive information handling; protection of online sensitive data repository; nefarious application of publically available sensitive information; third-party contractors; and physical infrastructure security.

A. Enhanced Data Protection Program is Essential; DOT Must Take Full Responsibility & Liability Risks

PHMSA is requesting to collect and store online in a single database a number of pipeline attributes that are considered to be sensitive information. With the intended open availability of this sensitive information, PHMSA must ensure the integrity of information handling by non-Federal entities and Federal entities beyond PHMSA staff. Information mishandling, whether intentional or in error, may result in unintended consequences with grave potential to threaten the safety and security of the communities the pipelines serve.

Many natural gas operators have established internal processes and policies around the authorized release of varying levels of pipeline attribute data to un-contracted third parties. Removing control from the operators must be balanced by DOT taking full responsibility, including liability, of the consequences associated with this information getting into the wrong hands. While collection of this data in one

common location may be technically feasible, the increased convenience brings a corresponding increase in risk of exposure, inappropriate access, and use that requires careful evaluation.²³

The information being requested lays the groundwork for a pipeline vulnerability assessment by malicious actors. By analyzing the detailed pipeline information, a third-party can plan and carry out the most serious physical and cyber-attacks causing impactful incidents to public safety. PHMSA has failed to prove how they will provide protection from this government-imposed increased risk to the operator and the communities the pipelines serve. PHMSA has not provided transparency in its contingency plan in the event the online database is breached and the detailed sensitive pipeline operations data are exfiltrated by unauthorized parties.

Based on remarks made by PHMSA representatives during the September 14, 2015 NPMS Public Meeting, it is AGA's understanding that the NPMS "has not been hacked." AGA emphasized that an unawareness by PHMSA of a successful cyber breach does not constitute an absence of a breach. Adversaries have proven time and time again the ability to remain undetected in systems for months, or even years, before the compromise is recognized.

Further, recent U.S. federal security breaches highlight the vulnerability of information stored by federal agencies due to their high profile. AGA understands that PHMSA systems are independent of other agencies, and though this may be true, AGA contends that the recent breaches are a symptom of a larger issue from which PHMSA is not immune. Isolation from a compromised system does not guarantee security. Again, the unawareness of a breach does not constitute the absence of a breach.

PHMSA must provide a data protection plan detailing how parties involved in the pipeline integrity risk analysis will retrieve and receive the information. Components of the data protection plan should include levels of information detail that will be available to the various parties, how these groups will be held responsible for the protection of the information, and how information mishandling will be addressed, including legal actions that may be taken against an irresponsible party that wantonly or unintentionally mishandles the information. PHMSA must be able to address these issues with confidence, outlining proper mitigation measures that circumvent intentional and unintentional releases of the information to unauthorized third parties. A comprehensive data protection program and policy must be developed and implemented prior to the submission and compilation of sensitive data into a single resource that is made available beyond PHMSA staff.

A November 2014 Office of Inspector General Audit Report highlights significant security weaknesses with the U.S. Department of Transportation's Information Technology Systems. Notably, the audit points out weaknesses around continuous monitoring, oversight and risk assessment for common security controls, procedures for testing new controls, overall lack of sufficient controls, and lack of sufficient management and oversight. A new audit of DOT's systems was to be completed by the end of FY2015, and PHMSA should understand the level of progress that DOT has made in addressing these weaknesses.

²³ On December 23, 2015, a cyber-attack led to the power outage of 225,000 customers in the Ukraine. DHS has concluded that hackers remotely switched breakers in a way that cut power after installing malware. While the NPMS would not control natural gas pipelines, it would allow nefarious actors to determine which pipelines, if taken out of service, would have the greatest impact on public safety and reliability, and it would provide the location of the critical valves for those pipelines and other key information. The information in the NPMS could be used to determine which operators, and specific pipelines, should be targeted for a physical or cyber-attack.

While DOT is demonstrating progress with improving its information security program, it remains evident that DOT still has room for improvement. PHMSA has suggested that the database will be located separately from the government network. Regardless of the database virtual location, PHMSA must ensure the integrity of the contractor and the data storage security. In light of this and before operators are expected to entrust detailed, sensitive pipeline information to an online database administered by PHMSA and/or its contractor, PHMSA must be able to provide assurances of the NPMS database's cyber defenses, regardless if the database operates on DOT or third party servers.

A. PHMSA Must Ensure Security of Sensitive Information Handling

An important consideration of a data protection program is the categorization of the data. Since most homeland security-related information is also business-sensitive, private companies worry that this information could be released either accidentally or under compulsion through open government laws. In an effort to strike the necessary balance between "sharing the information that needs to be shared" and "protecting the information that needs to be protected," the Federal government has instituted protection regimes for sensitive but unclassified homeland security-related information.

PHMSA has classified the most sensitive attributes as Sensitive Security Information (SSI), with the intent of retaining these attributes in an SSI environment to ensure the attributes are only released to government agencies who can verify they maintain an SSI-compliant environment. However, SSI classification takes control out of the hands of the operators and relies solely on PHMSA to appropriately classify and handle the data once it is handed over. If the information is not appropriately classified, then there is a risk that this sensitive data will end up in the wrong hands.

AGA maintains that a preferable classification that is more protective than SSI is Protected Critical Infrastructure Information (PCII), which is a program that protects infrastructure information voluntarily shared with DHS to be used for homeland security purposes. Through the Critical Infrastructure Information Act of 2002, PCII in the Government's hands is protected from disclosure. Under the auspices of the PCII, the operator voluntarily submits the information to DHS, and the submitter retains control of further dissemination (unlike the case of SSI where the submitter has no control). DHS must review the information to certify that it is not already publically available. Other government agencies, once accredited by DHS, may use the program for appropriate information voluntarily submitted. Information validated as PCII may not be disclosed through a FOIA request or through a request under a similar State, tribal, or territorial disclosure law; may not be disclosed in civil litigation; or may not be used for regulatory purposes. PCII is specially marked and must be safeguarded, both physically and electronically, under specific procedures to avoid any improper disclosures. PCII authorized users at all levels of government, including contract support personnel, to the criminal code and to the applicable laws within their jurisdictions. All of these protections ensure that submitted information is protected, whether containing critical homeland security-related or sensitive/proprietary private sector information. The 12-year old PCII process is an already workable method to balance critical data safeguards with giving access to stakeholders who require safety-sensitive information. Use of any less data protections than PCII invites the potential damage to national security.

The disclosure protections for SSI are significantly weaker than those for PCII. SSI consists primarily of a FOIA exemption and restrictions on the sharing and use of information. There is no reference to how SSI may be handled under a similar State, tribal, or territorial disclosure law, nor is there reference to disclosure in civil litigation. Further, penalties associated with SSI mishandling are limited to Federal employees.

Recognizing data submission to the NPMS will not be a voluntary program, and the PCII protections may not be applied, PHMSA is strongly encouraged to establish an information handling policy that incorporates PCII elements that holds information handlers fully accountable for any disclosure of SSI information at the State and local levels. Further, PHMSA is requested to provide an explanation for each element PHMSA concludes does not qualify for SSI protections.

B. Cybersecurity of Online Databases – PHMSA’s Proposal Would Increase Vulnerability

PHMSA’s ICR includes a restriction of a majority of requested attributes to the Pipeline Information Management Mapping Application (PIMMA), an online database for use by pipeline operators and federal, state, and local government officials. AGA re-emphasized in their comments to PHMSA that Federal governments’ and government contractors’ computer networks are not immune to unauthorized, third-party access. Successful compromises have ranged from notable penetration by nation states of databases of the federal government’s personnel office, which contain files on all federal employees, including thousands who have applied for top-secret clearances; to access designs for many of our nation’s most sensitive advanced weapons systems; to stealing passwords and metadata.

Currently, the PIMMA database is accessed using single-factor authentication by way of a single user name and password. This type of authentication can easily be broken by guessing, brute force attacks, dictionary attacks, or other common cyber-attack methods. Weaker password policies that do not specify length, character types, or enforce limits on age or password reuse can make it easier for attackers to steal log-in credentials. In addition, using a single user name and password can make it easier for users to share log-in credentials with each other. While this is against PHMSA’s usage policy, there do not appear to be any controls in place that restrict this practice. AGA understands that the PIMMA database limits users from signing into multiple devices at the same time using the same account; however, this will not prevent users from sharing log-in credentials. The best way to ensure that log-in credentials are used only by one user is, at the minimum, application of two-factor authentication, where the second factor is limited to something that only that user would have (e.g., security token, cell phone). Two-factor authentication also makes it measurably more difficult for attackers to break or steal log-in credentials.

Further, AGA understands that the current PIMMA password policy does not require passwords to be changed. Instead, users are notified after a certain period of inactivity that their log-in credentials will be revoked. Allowing users to utilize the same password for an indefinite period of time increases the amount of time that attackers have to steal it. As a general security practice, passwords should be changed 2-3 times a year to limit the amount of time that the password is exposed to theft.

As a matter of prudence, AGA does not support the online collection of data at the level being requested by PHMSA. A single online database containing this level of operational and pipeline integrity information significantly increases our Nation’s pipeline physical security vulnerability, especially in light of the evidence of cybersecurity related incidents and the grave potential the online database may be compromised by unauthorized users. If PHMSA persists in the online method of data compilation, storage, and access, then prudence demands PHMSA develop a comprehensive program, including policy, to ensure the cybersecurity integrity of the information. In addition to correcting the security concerns raised above, PHMSA’s security program should consider more advanced security measures including data encryption, secure communication tunnels, and continuous monitoring capabilities.

AGA also understands that PHMSA intends to utilize third party vendors to assist in the data processing and management for NPMS. Allowing third-party contractors to access this sensitive information presents a security concern that should be appropriately managed. The OPM security breaches revealed in June 2015 have been linked to Federal contractors. Adversaries commonly target third party contractors as one potential point of vulnerability that can be compromised in attempting to gain access to sensitive information. This highlights the need to ensure that contracts include the appropriate provisions for both cyber and physical security of information that is accessed or managed by the contractor, including penalties and operator collection of damages in the events of database breach. AGA encouraged PHMSA to ensure that security be a key consideration in the procurement process for third party contractors that will have access to this information.

C. Excessive Publicly Available Information in a Single Online Database Jeopardizes Security

PHMSA includes pipe grade and pipe joining method in the attributes that can be accessed through the NPMS Public Viewer, which can be accessed by the general public. After questioning the value gained by the general public in knowing these pipeline attributes, PHMSA has failed to provide a response. There is no apparent use for the general public to have knowledge of such attributes. These attributes, alone, would not constitute a threat to pipeline security. However, the sum of these attributes and the others being collected, with locational data for the pipelines, provides the playbook for a successful attack. If it is determined that pipe grade and pipe joining method will be collected in the NPMS, then this information should be restricted only to the access of pipeline operators; federal, state, and local government officials.

Further, with the location of all critical pipeline assets and specific information on these pipelines in a single online database, the targeting and mission planning for an individual or group (aggressor) wanting to do harm to pipeline infrastructure and impact the safety of the communities neighboring those pipelines have been performed for the aggressor. In PHMSA's efforts to enhance public safety by improving the convenience and availability of pipeline attributes, PHMSA is creating vulnerabilities that do not presently exist and the disclosure of the attributes, whether intentional or not, increases the physical vulnerability of pipeline assets and the risk to public safety.

VII. PHMSA's Revised NPMS ICR Exceeds the Scope of Its Authority and is Contrary to Law

PHMSA has undertaken this extensive overhaul to the NPMS not through a rulemaking, but through a revision to an ICR. PHMSA's Revised NPMS would impose significant legal obligations on operators that only can be achieved through rulemaking.

A. PHMSA's Limited Authority to Act Pursuant to Section 60132, National Pipeline Mapping System

PHMSA's collection of geospatial data or technical data is limited to that data that is *necessary* to carry out the purposes of the NPMS.²⁴ PHMSA has stated numerous goals for its newly requested data attributes, many of which AGA believes are outside the traditional purpose of the NPMS to provide a visual representation of limited pipeline data. PHMSA's desire to use the information to "evaluate existing and proposed regulations as well as operator programs and/or procedures;" "strengthen the effectiveness of PHMSA's risk rankings and evaluations;" providing "better support to PHMSA's inspectors;" and better

²⁴ 49 U.S.C. §60132(a)((1) ("Geospatial data appropriate for use in the National Pipeline Mapping System or data in a format that can be readily converted to geospatial data."); *id.* at §60132(a)(4) ("Any other geospatial or technical data, including design and material specifications, that the Secretary determines are necessary to carry out the purposes of [the National Pipeline Mapping System].").

supporting “PHMSA’s research and development programs” are well outside the purpose of the NPMS and any attributes for these purposes are outside PHMSA’s authority to collect under 49 U.S.C. §60132.

Nonetheless, PHMSA has not articulated how each requested attribute, in geospatial format, is *necessary* for purposes of the NPMS, even including those purposes that PHMSA provides. Unless and until PHMSA can articulate and demonstrate how each attribute is necessary for its stated purposes, the requested information is outside the scope of PHMSA’s stated authority to request information for the NPMS.

B. PHMSA’s ICR Is an Improper Attempt to Evade Rulemaking Requirements

PHMSA’s revised NPMS imposes obligations on the regulated community that exceed the scope of an ICR, fail to provide safeguards integral to notice and comment rulemaking, and are contrary to law.

PHMSA’s collection of information through the NPMS imposes obligations on operators beyond the disclosure of information and recordkeeping requirements contemplated by the PRA. Under the PRA, recordkeeping requirements are limited to maintaining and retaining specified records.²⁵ Imposing an obligation to create and populate a geospatial information system database to the specifications of PHMSA’s request does not fall within this definition. Despite the fact there is no regulatory obligation to maintain a GIS, much less the specific GIS platform, PHMSA’s ICR requires that operators submit data in a specific GIS platform.

PHMSA’s revised ICR would impose new legal obligations on affected parties that can only be promulgated through a rulemaking. As previously discussed, Revised NPMS requests specific geospatial pipeline attribute data and positional pipeline accuracy at a level that requires the use of GIS, despite the fact that there is no regulatory requirement that operators use GIS. In addition, the Revised NPMS requests attribute data for which there is no regulatory requirement to maintain records of.

The substantial obligations of the NPMS can only be imposed on regulated parties through a rulemaking. Such a rulemaking is subject to the general requirements of the Administrative Procedure Act,²⁶ and in PHMSA’s case, the limitations on PHMSA’s authority, which would require that PHMSA consider the reasonableness and appropriateness of the standard, as well as prepare a risk assessment of the estimated benefits and costs.²⁷ In addition, the Revised NPMS would need to be discussed, considered and voted upon by PHMSA’s Pipeline Advisory Committees, which are composed of representatives from government, industry and the public.²⁸ Providing notice and comment of the Revised NPMS does not cure the deficiencies in PHMSA’s request. PHMSA’s Revised NPMS lacks the level of reasoned analysis and explanation supporting the agency’s decisions necessary for a rulemaking under the Administrative Procedure Act.

AGA recommends that OMB require PHMSA to undertake a rulemaking consistent with PHMSA’s procedural rulemaking requirements and the Administrative Procedure Act.

Respectfully submitted,

²⁵ 44 U.S.C. § 3502(13) (definition of “recordkeeping requirement”); 5 C.F.R. § 1320.3(m) (same).

²⁶ 5 U.S.C. §§ 500, et seq.

²⁷ 49 U.S.C. §60102(b).

²⁸ *Id.* at §60102(b), §60115.

Date: July 22, 2016

AMERICAN GAS ASSOCIATION

By:

A handwritten signature in dark ink, appearing to read 'CLS' followed by a stylized flourish.

Christina Sames

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