November 25, 2015

Via www.regulations.gov and email

Mr. Jeff Wiese
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: Pipeline Safety: Request for Revision of a Previously Approved Information Collection—National Pipeline Mapping System Program (OMB Control No. 2137-0596), Docket No. PHMSA-2014-0092.

Dear Mr. Wiese:

The Interstate Natural Gas Association of America (INGAA), a trade association that advocates regulatory and legislative positions of importance to the interstate natural gas pipeline industry in North America, respectfully submits these comments in response to the Pipeline and Hazardous Materials Safety Administration (PHMSA)'s proposed revision of its National Pipeline Mapping System.[1]

INGAA acknowledges and appreciates PHMSA's reconsideration of eight of the initially proposed thirty-one pipeline attributes for inclusion in the National Pipeline Mapping System. However, INGAA urges PHMSA to reexamine the necessity of many of the remaining pipeline attributes and reevaluate its burden estimate and ability to protect sensitive information from public disclosure. INGAA included these concerns in its comments filed on December 1, 2014 and continues to stand by these positions.[2]

INGAA appreciates your consideration of these comments.

Sincerely,

Brianne K. Kurdock
Regulatory Attorney

[1] "Pipeline Safety: Request for Revision of a Previously Approved Information Collection: National Pipeline Mapping System Program (OMB Control No. 2137-0596)," 80 Fed. Reg. 52084 (August 27, 2015).

[2] INGAA comments filed on December 1, 2014 (*See* Appendix A). Many of the issues raised by INGAA in the 2014 comments were not addressed in the Revised ICR issued on August 27, 2015, including the failure of PHMSA to meet the requirements of the Paperwork Reduction Act.

BEFORE THE
UNITED STATES DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
WASHINGTON, D.C.

Pipeline Safety: Request for Revision of a Previously Approved Information Collection: National Pipeline Mapping System Program (OMB Control No. 2137-0596)	Docket PHMSA-2014-0092

COMMENTS OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

November 25, 2015

Table of Contents

Executive Summary 1

Detailed Comments 2

I. Technical Concerns with PHMSA's Revised ICR 2

II. Legal Concerns with PHMSA's Revised ICR 6

A. The proposed collection is not the least burdensome approach necessary to achieve the agency's stated goals and is duplicative of information otherwise accessible to the agency. 6

B. PHMSA has not considered the known technology issues and therefore the Revised ICR lacks a "practical utility" as required under OMB regulations. 8

C. PHMSA's estimated burden is inaccurate and unsupportable. 9

1. PHMSA should reevaluate its estimated burden calculation to ensure that it has included all of the factors required by OMB. 9

2. PHMSA has underestimated the total hours and costs for compliance with the Revised ICR. 10

III. Security Concerns with PHMSA's Revised ICR 11

A. PHMSA needs to clarify its security classification of certain attributes. 12

B. PHMSA should reconsider data available to registered users in PIMMA. 12

IV. Conclusion 13

Appendix A 15

Appendix B 16

Appendix C 17

Executive Summary

INGAA supports PHMSA's desire to improve its National Pipeline Mapping System (NPMS) and acknowledges that the agency has made certain revisions to its initial information collection proposal (Initial ICR).[3] INGAA recognizes that PHMSA reduced the list of 31 attributes to approximately 23 as a result of stakeholder comments and concerns over whether the agency had the jurisdiction and authority to collect certain information. However, INGAA continues to have significant concerns with the scope and content of PHMSA's revised Information Collection Request (Revised ICR).[4]

As illustrated in its previous comments,[5] INGAA is concerned with the breadth of both proposed information collection requests and questions whether it is necessary to collect all of the requested attributes within NPMS. Many of these pipeline attributes are already collected under PHMSA's annual reporting requirements or gathered through the integrated inspection process. As proposed, the Revised ICR would not yield a useful, valuable database to serve PHMSA's purposes since the agency has failed to take into account widely known issues with converting geospatial data. Finally, PHMSA has grossly underestimated the costs of producing the data in the format requested.

Because of these specific concerns, INGAA asserts that neither PHMSA's Initial nor Revised ICR complies with the Paperwork Reduction Act (PRA) or the Office of Management and Budget (OMB)'s regulatory requirements for paperwork burdens. INGAA urges PHMSA to review its Revised ICR with these implications in mind. Because of the extensive costs involved, the NPMS proposal exceeds the threshold for a significant rulemaking. As such, PHMSA should consider issuing this proposal as a rulemaking, instead of a stand-alone information collection request. This would allow the NPMS proposal to be assessed using meaningful regulatory analyses including the cost-benefit analysis required under Executive Order 12866, as amended, and 49 U.S.C. § 60102(b)(2).

INGAA continues to support its counterproposal included in its 2014 comments as a way for PHMSA to modernize NPMS at a pace and cost burden that is sustainable for the regulated community.

[3] "Pipeline Safety: Request for Revision of a Previously Approved Information Collection: National Pipeline Mapping System Program (OMB Control No. 2137-0596)," 79 Fed. Reg. 44246 (July 30, 2014).
[4] "Pipeline Safety: Request for Revision of a Previously Approved Information Collection: National Pipeline Mapping System Program (OMB Control No. 2137-0596)," 80 Fed. Reg. 52084 (August 27, 2015).
[5] *See* Appendix A.

Detailed Comments

I. Technical Concerns with PHMSA's Revised ICR

Inclusion of Highway Data

PHMSA is proposing to collect positional accuracy data for pipeline segments in the proximity of a highway right-of-way; however, that type of data is not ripe for collection. In the Revised ICR, PHMSA now proposes that gas transmission operators submit data with +/- 50 feet positional accuracy for all pipeline segments within "a right-of-way for a designated interstate, freeway, expressway, or other principal 4-lane arterial roadway…within its potential impact radius."[6] This data is not ready for collection because PHMSA fails to refer operators to a complete dataset to obtain the highway data. In addition, PHMSA is proposing to collect data to support a regulatory requirement that does not currently exist.

It is critical that all operators use the same database to determine proximity to these roadways. Otherwise, the data submissions to PHMSA will be inconsistent and meaningless. INGAA has reviewed all of the highway databases it could find and determined that many are either incomplete or do not provide sufficiently robust data to determine the proximity of a pipeline to a highway right-of-way. INGAA has reviewed both the Federal Highway Administration's *Highway Functional Classification Concepts*, referenced by PHMSA in the Revised ICR, and the Bureau of Transportation Statistics' *National Transportation Atlas Database*.[7] Neither source provides a complete database. In some cases, the "centerline" referenced is actually the centerline of a particular lane of travel, rather than the centerline of the roadway.

Operators do not maintain nor have control over the accuracy of highway data. Each operator could potentially rely on different data supported by imaging or other field work to determine proximity of the potential impact radius to the highway right-of-way. However, there most likely would be spatial gaps between the two data sets (the highway data and the pipeline operator's GIS program) causing additional accuracy issues. Inclusion of highway data in NPMS without a single, supporting data source from which to access this information would only increase the already extensive costs associated with the Initial and Revised ICRs.

INGAA is also concerned that PHMSA is proceeding to collect data in NPMS to support a regulatory requirement that does not currently exist. In support of the need for this attribute, PHMSA references the National Transportation Safety Board (NTSB) Recommendation P-15-004, which states, "[i]*ncrease the positional accuracy of pipeline centerlines and pipeline*

[6] Revised ICR, at 4.

[7] *See* http://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf; http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_atlas_database/index.html

attribute details relevant to safety in the National Pipeline Mapping System."[8] However, this NTSB recommendation does not require the inclusion of interstate, freeway, expressway, or other principal four-lane arterial roadway data. Instead, as part of a 2014 recommendation to PHMSA, the NTSB recommended that PHMSA revise its definition of a high consequence area (HCA) to include these types of roadways.[9] Since PHMSA has not yet revised its definition of a high consequence area (§ 192.903), it does not appear that this particular attribute (proximity of a pipeline to the listed roadways) is ready for inclusion in NPMS. INGAA urges PHMSA to wait to include this particular data field in NPMS until the agency has sought notice and comment for this regulatory revision and has collected the supporting data sources it needs.

Inclusion of One or More Buildings Intended for Human Occupancy

INGAA raises the same argument of ripeness in response to PHMSA's request for positional accuracy data for pipeline segments in proximity to one or more buildings intended for human occupancy. PHMSA has yet to proceed with notice and comment to propose changes to the definition of a high consequence area. Therefore, the agency should not collect this data as part of NPMS submissions until PHMSA has concluded the regulatory process. Further, INGAA members would need to maintain this data through ongoing updates and field reviews for structures built along a pipeline. Both structure counts and an analysis of the potential impact radius are dynamic datasets that would require ongoing management and review. These additional efforts would need to be factored into any estimated burden associated with this information collection.

Coating and Seam Type

As INGAA stated in its 2014 comments, PHMSA should consider collecting a yes or no response on coating type rather than requiring operators to conform their data to one of the listed options in PHMSA's Operator Standards Manual (Manual). In its Manual, PHMSA requires that operators use a specific list of coating types. However, these values do not match the fields commonly used by operators. Most operators have a different domain list for "coating type" than PHMSA's fields. This difference would require operators to interpret and compare their definitions with PHMSA's and then make translations. PHMSA's definitions would need to be clarified and adopted by the entire regulated community for consistency purposes prior to mandating submission of coating type to NPMS.

There is also some uncertainty surrounding the scope of the requested seam type data. In the Revised ICR, PHMSA states that "PHMSA intends to collect this information *with the possibility*

[8] http://www.ntsb.gov/safety/safety-recs/recletters/P-15-001-022.pdf

[9] "Revise Title 49 Code of Federal Regulations Section 903, Subpart O, Gas Transmission Pipeline Integrity Management, to add principal arterial roadways including interstates, other freeways and expressways, and other principal arterial roadways as defined in the Federal Highway Administration's Highway Functional Classification Concepts, Criteria and Procedures to the list of "identified sites" that establish a high consequence area." *See* http://www.ntsb.gov/safety/safety-recs/recletters/P-14-001.pdf.

of limiting it to Classes 3, 4, and HCAs."[10] INGAA questions whether PHMSA will limit this collection or not. Knowing this type of information will help INGAA determine the burden of collecting this attribute.

Use of Predominant

INGAA does not support the use of 'predominant' for any of the requested attributes as this would require operators to analyze attributes along a pipeline to determine 'predominance" based on PHMSA's definition.[11] Using 'predominant' instead of actual values would significantly increase the time and costs involved to complete a NPMS submission. INGAA questions the need for rolling up data as 'predominant' when most operators can submit actual values. Operators should always have the option to submit actual values.

Timing of Collection

INGAA appreciates PHMSA's inclusion of a phased-in approach to modify NPMS. However, INGAA urges PHMSA to consider aligning its three-year timeline with the current integrity management reassessment schedule to avoid duplicative work. The next full round of integrity management reassessments will conclude in 2023. PHMSA should consider aligning its submission deadlines for the enhanced NPMS with the year 2023 to avoid duplicative field work. Aligning the data collection submission date with the timing of these field verifications would significantly reduce the compliance burden as well as the burden estimate for the information collection. For example, seven of the sixteen attributes applicable to natural gas pipelines that PHMSA currently proposes to collect during the first phase do not currently exist on a majority of INGAA member's GIS systems.[12] Many of these attributes are complex and will require the addition of significant linear segments to an NPMS submission. PHMSA should consider delaying these attributes until the second phase of data collection.

Finally, delaying this information collection until 2023 would allow the agency additional time to update its own system in preparation for an overwhelming amount of new data transmitted from pipeline companies.

Complexity of NPMS Submissions & Pipeline Segmentation

PHMSA should consider accepting a "dump and replace" for all pipeline information submitted annually to NPMS by operators. This is particularly important on account of the changes that will occur on an annual basis.

In particular, pipeline segmentation will increase on account of the following:

[10] Revised ICR, at 52809 (emphasis added).
[11] PHMSA has now offered a definition of 'predominant' in the Revised ICR as "90 percent or higher of the pipe segment being submitted to the NPMS."
[12] *See* Appendix B (pipe material, pipe join method, SMYS, seam type, class location, gas HCA segment, abandoned pipelines).

- The increase in centerline accuracy has a very high potential to increase the number of linear referenced natural gas transmission segments being submitted annually to the NPMS.
- Five of the attributes PHMSA proposes to request will have a high potential to increase the number of annually submitted linear referenced natural gas transmission segments to the NPMS.[13]
- Fifteen of the attributes PHMSA proposes will have a medium potential to increase the number of annually submitted linear referenced natural gas transmission segments to the NPMS.[14]

Finally, PHMSA is requesting information in a format that is different from other information requests such as the Incident Report Form (PHMSA F. 7100-2). For example, sixteen of the requested attributes in the Revised ICR use different formats than the information collected in PHMSA F. 7100-2. The Incident Report and the proposed NPMS submissions would require the same information but in different formats. INGAA recommends that the agency align the formats for the same data requested across different information collections. Regardless, PHMSA should be aware that operators will have to process its GIS data on an annual basis to align with PHMSA's requested format.

INGAA Counterproposal

INGAA continues to support the counterproposal included in its 2014 comments.[15] In order to reduce the burden of this collection, PHMSA should consider tailoring its mandatory NPMS submissions to only those attributes that assist emergency responders, educate the public, and resolve NTSB recommendations. INGAA has examined PHMSA's list of proposed attributes, as revised, and identified those that will result in a meaningful improvement to NPMS for PHMSA and other stakeholders. Specifically, these attributes are:

- Pipe Material (e.g. steel, plastic, cast iron)
- Nominal Pipe Diameter
- HCAs (beginning and ending points existing at the beginning of reporting year)
- Method used to determine HCA (Method 1 or 2)
- Pipe Coated (Y/N)
- Cathodically Protected (Y/N)
- Is the segment piggable or able to be internally inspected (Y/N)
- Commodity type (e.g. natural gas)
- 30 percent SMYS threshold for low stress pipelines (AGA's proposal)

[13] *See* Appendix B.
[14] *Id.*
[15] *See* Initial ICR, at 15-16.

This proposal strikes a balance between PHMSA's desire to enhance the existing NPMS and the burden of the agency's proposal on the regulated community by narrowing the collection to necessary and useful information.

The combined operator and PHMSA costs to generate, process, and display the information to the public and emergency responders is significantly less than that of the proposed information collection. INGAA submits that if PHMSA tailored its information collection to these particular attributes rather than the 23 attributes included in the Revised ICR, the costs would amount to approximately $81,880,000.[16]

II. Legal Concerns with PHMSA's Revised ICR

As was the case with PHMSA's Initial ICR, the Revised ICR does not comply with the PRA or OMB's regulations for paperwork burdens.[17] The purpose of the PRA was "to have Federal agencies become more responsible and publicly accountable for reducing the burden of Federal paperwork on the public…"[18] PHMSA's Revised ICR runs contrary to that goal by *expanding* the amount of information collected, rather than minimizing it. The Revised ICR represents an extensive overhaul of the existing information collection and therefore, PHMSA should review carefully its proposed revisions.

As PHMSA is aware, in order to obtain OMB approval of an information collection, an agency must demonstrate that it has "taken every reasonable step" to ensure that the proposed collection:

> (i) is the *least burdensome necessary* for the proper performance of the agency's functions to comply with the legal requirements and achieve program objectives;
>
> (ii) is *not duplicative of information* otherwise accessible to the agency; and
>
> (iii) has a *practical utility*.[19]

PHMSA has not met its burden of satisfying these requirements.

A. The proposed collection is not the least burdensome approach necessary to achieve the agency's stated goals and is duplicative of information otherwise accessible to the agency.

First, PHMSA already collects most of the requested data through existing information collections such as the annual reporting requirements or its integrated inspection process

[16] *See* Appendix C.
[17] *See* 44 U.S.C. § 3501 (1995); *See also,* 5 C.F.R. § 1320.1 *et seq.*
[18] *Id.*
[19] 5 C.F.R. § 1320.5(d) (2013) (emphasis added).

whereby the agency comprehensively inspects a pipeline's implementation of multiple regulatory programs. If PHMSA's goal is to enhance its current risk ranking methodology, the agency could input this information from existing data sources without creating duplicative information collections.

OMB's paperwork burden regulations prohibit duplicative collections that serve only to minimize agency costs and efforts. "The agency shall also seek to minimize the cost to itself of collecting, processing, and using the information, but shall not do so by means of shifting disproportionate costs or burdens onto the public."[20] Although having the requested data in one database might be more efficient for PHMSA's inspection process, it certainly is not the least burdensome approach to achieve this goal. Asking operators to resubmit the information in a different format may be more efficient for PHMSA but creates a significant burden on the regulated community. If PHMSA moves forward with the Revised ICR as written, the other means of collecting this same data such as the annual report should be discontinued.

Second, PHMSA is proposing to collect numerous pipeline attributes on the basis that emergency responders need the information. In the Initial ICR, PHMSA stated that "[m]ore accurate and complete NPMS data will also help emergency responders and government officials create better, more appropriate emergency response plans."[21] In the Revised ICR, PHMSA continues to cite to "effective assistance to emergency responders by providing them with a more reliable, complete dataset of pipelines and facilities."[22] However, as asserted in INGAA's 2014 comments, emergency responders do not want or need all of this information.

In March 2014, INGAA conducted a survey of emergency responders through Paradigm Alliance, Inc. seeking input on their preferred method for receiving pipeline facility information.[23] The results are clear. Their preferred format is either a digital map or a paper map. Only **1.9 percent** or 19 of 985 respondents stated that they use NPMS frequently. In order to support their efforts and ensure they have up to date information on the pipelines that travel through their jurisdictions, emergency responders need commodity information for the pipeline(s), the general location of the pipeline facility, and contact information for the pipeline company. PHMSA has failed to demonstrate why expanding the information submitted to the NPMS to include 31, now 23, separate attributes for each individual pipeline segment will assist emergency responders.

[20] 5 C.F.R. § 1320.5(d)(iii).
[21] Initial ICR, at 1.
[22] Revised ICR, at 52085.
[23] See Appendix A of 2014 INGAA comments. Almost 1,000 emergency responders completed the survey. Interestingly, only 7.4 percent of the 985 respondents listed NPMS as their preferred method to obtain pipeline facility information. In fact, 69 percent of respondents stated that they receive paper maps from their local pipeline operator. In terms of accuracy requirements, 68 percent of respondents stated that they do not require a centerline tolerance more accurate than current requirements for planning purposes. Of those that do, the majority stated that 100' was an acceptable accuracy tolerance.

The NTSB has also recommended that PHMSA enhance the pipeline facility information the agency collects; however, its recommendation was much narrower in scope.[24] The NTSB recommended that emergency responders know the pipe diameter, operating pressure, product transported, and the potential impact radius of each pipe in their jurisdiction. In August 2013, almost a year prior to the publication of the ICR, PHMSA requested that the NTSB close this recommendation.[25] Certainly, requesting closure of a NTSB recommendation signifies that PHMSA believed it had made enough improvements to meet emergency responders' needs.

B. PHMSA has not considered the known technology issues and therefore the Revised ICR lacks a "practical utility" as required under OMB regulations.

Under the PRA and OMB regulations, PHMSA must demonstrate the capability to process the collected information in a timely and useful manner.[26] 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."[27] PHMSA has failed to take into account the known accuracy issues that occur when converting data from a company's GIS system and associated coordinated reference system to the agency's system. The coordinate transformation may introduce errors of five feet to 40 feet and will lead to deteriorated data beyond the requested level of positional accuracy.

The problem often stems from issues with base mapping. Base map imagery is required to provide accurate geography to position all feature data relative to its true location. Base map imagery is available in a variety of sensor-platforms, spectral bands, viewing-angles, resolutions, accuracies, and pricing. Base maps, therefore, are highly variable. Conversion of data from one base map to another can result in errors and inconsistencies. The information collection may be useless if the information is inaccurate or incomprehensible after it is downloaded. PHMSA should modify the Revised ICR to eliminate collecting extensive data until advances in technology eliminate this "lost in translation" issue.

---

[24] *See* NTSB Recommendation P-11-8.

[25] http://phmsa.dot.gov/pv_obj_cache/pv_obj_id_DAB70470F126852F756F3AE2CEA7C90100E97100/filename/Report_to_Congress_on_NTSB_and_OIG_Recommendations.pdf; In its request for closure, PHMSA listed all of the actions it had taken to enhance pipeline facility information for emergency responders. PHMSA did not express any need to expand NPMS.

[26] *See* 44 U.S.C. § 3502(11) (1995).

[27] 5 C.F.R. § 1320.3(l).

C. PHMSA's estimated burden is inaccurate and unsupportable.

1. PHMSA should reevaluate its estimated burden calculation to ensure that it has included all of the factors required by OMB.

The initial and revised burden estimates are woefully inaccurate. PHMSA's initial burden estimate for this information collection consisted of 420,516 hours for 1,211 respondents. PHMSA has since reduced the burden estimate to 335,124 hours for 1,211 respondents.

OMB defines burden as "…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."[28]

PHMSA's burden estimate fails to recognize all of these factors. First, and most importantly, some of the requested information is not readily available in geospatial format. Operators know the various attributes for each pipe segment but all of the information is not currently in a geospatial format. Some of it is contained in paper records and operators will need to devote significant resources to convert that information. It is a tedious process to align the information from physical records to a GIS centerline geospatially by establishing a link between the data and record. In addition, very few operators have the data PHMSA is requesting <u>in the format PHMSA is seeking</u> in their GIS systems at this time. These additional costs need to be factored into any burden estimate.

PHMSA's burden estimate fails to account for having to run tools and assimilate historical data into an operator's GIS system. For instance, hydrotest information and MAOP information come from different data sources. In some cases, such as coating, an operator would have to validate the data in the field. Most operators would have a different domain list for "coating type" than PHMSA which would require them to interpret and compare their definitions with PHMSA's and then make translations. These types of compare and translate efforts would be very costly and would be done differently by each operator causing the data ultimately submitted to PHMSA to be inconsistent and inaccurate.

[28] 5 C.F.R. §1320.3(b)

PHMSA also fails to consider that operators will have to upgrade or acquire a new GIS to accommodate all of the additional data fields. Pipeline operators' GIS systems were built to incorporate a limited amount of information. PHMSA seems to assume that operators will be able to use their existing systems to accommodate 31, now 23, new data requests. This assumption is incorrect. In its 2014 comments, INGAA included a summary of the steps a company with an average GIS system would need to conduct to comply with PHMSA's Initial ICR.[29] These steps have not changed on account of the revisions PHMSA has made to its Revised ICR.

Finally, PHMSA's estimated burden calculation should also include the training and resources that will be needed to maintain the information.

PHMSA's burden estimate fails to account for the time, effort, and financial resources necessary to comply with the Revised ICR. Consequently, PHMSA has substantially underestimated the burden of complying with the Revised ICR.

2. PHMSA has underestimated the total hours and costs for compliance with the Revised ICR.

PHMSA has substantially underestimated the number of hours and costs that operators will incur to comply with the ICR. PHMSA's cost burden breaks down to approximately 11.5 days of man-hours for each respondent. Typically, burden estimates are calculated on a per-mile basis.[30]

Therefore, using PHMSA's mileage figure for NPMS of 420,117 miles and its burden estimate of 355,124 hours to complete the Revised ICR, PHMSA's total cost of the Revised ICR is $31,274,209.[31]

Although $31 million is certainly a costly initiative, this total significantly underestimates the true costs of PHMSA's proposal. In the 2014 comments, INGAA computed its own burden estimate. The anticipated cost of the Initial ICR for only INGAA member companies (approximately 180,000 miles out of 290,000 reported gas transmission miles) was $820

[29] INGAA 2014 comments, at 10.

[30] *See* PHMSA's Supporting Statement for the renewal of the current NPMS information collection submitted to OMB on November 7, 2013. *See* Supporting Statement at http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201309-2137-001

[31] PHMSA's burden estimate of 355,124 hours breaks down to 21,307,440 minutes which is then divided by 420,117 miles (the NPMS mileage estimate PHMSA has used in the past). This calculation produces a figure of 50 minutes per mile which is then used with the $89.33/hour wage estimate or $74.44/mile. INGAA used the 2013 Department of Labor median hourly wage of an engineering manager (NAICS 486000) and added 35 percent similar to PHMSA's 2013 calculation. The 2013 median hourly wage of an engineering manager (for NAICS 486000-pipeline transportation) is estimated to be $66.17. In following PHMSA's 2013 calculation, INGAA added 35 percent as estimated fringe benefits. The full cost of an engineering manager is therefore $89.33 per hour. http://www.bls.gov/oes/current/naics3_486000.htm#17-0000. The $74.44 per mile figure is multiplied by the 420,117 miles for NPMS which produces a total cost of $31,274,209.

million.[32] This figure covered the costs to reconfigure existing GIS systems, potentially develop new GIS systems, train employees, review pipeline records, input the historical information into the GIS system, and conduct field work potentially digging up portions of the pipe to confirm accuracy tolerances.

INGAA has updated its cost estimate to reflect the changes PHMSA made in its Revised ICR. The costs for INGAA members to comply with the Revised ICR could exceed $586,572,857.[33] This is a stark comparison to PHMSA's burden estimate.

INGAA divided its revised cost estimate into four major categories.

1. Centerline Accuracy to achieve +/- 50 feet accuracy in specified areas and +/- 100 feet everywhere else	$4,510 per mile
2. Roadway Data Set	$350 per mile
3. Missing attributes	$5,000 per mile
4. Database resolution to fit PHMSA format (resolving non-identical codelists)	$30,000 per operator

These are resources that would be diverted away from other activities that would improve safety.

Given the staggering costs to comply with the Revised ICR, PHMSA should substantially narrow the data requested under the Revised ICR, or alternatively consider proposing the Revised ICR as a rulemaking. The anticipated costs for compliance far exceed the $100 million threshold for a significant rulemaking. PHMSA should afford the same review and analysis to this information collection as would be given to any information collection incorporated in a significant rulemaking.

III. Security Concerns with PHMSA's Revised ICR

PHMSA should clarify its intended classifications for requested data that is either commercially sensitive or could create an infrastructure security risk, if exposed. In the Revised Notice, PHMSA categorizes the 23 attributes as Sensitive Security Information (SSI), Pipeline Information Management Mapping Application (PIMMA), or accessible to the public.

[32] INGAA's cost estimates are based on information for mainline and transmission laterals only.
[33] *See* Appendix C for further explanation.

A. PHMSA needs to clarify its security classification of certain attributes.

There are a few discrepancies in the Revised ICR with how certain data will be classified. For instance, PHMSA lists MAOP under both the SSI and PIMMA sections in the Data Security section.[34] INGAA urges PHMSA to treat MAOP as SSI since it is propriety and there would be a serious security risk if someone with the intent to harm the nation's energy infrastructure were to obtain the MAOP in addition to some of the other requested attributes. Likewise, PHMSA also lists SMYS under both SSI and PIMMA in the Revised ICR.[35] INGAA also requests that PHMSA treat SMYS as SSI.

PHMSA intends to allow PIMMA user access to gas HCA information but classifies "could affect" HCAs for liquid pipelines as SSI. INGAA questions why gas HCAs should be treated with less security than liquid HCAs. Finally, PHMSA classifies the locations of pump and compressor stations as accessible to PIMMA users and as SSI. INGAA supports the treatment of the location of compressor stations as SSI given the infrastructure security risks involved. Finally, PHMSA lists pipe grade under both PIMMA access and the public viewer. PHMSA should clarify how pipe grade will be classified for security purposes.

INGAA seeks clarification of the intended security classifications of these particular attributes.

B. PHMSA should reconsider data available to registered users in PIMMA.

Although PHMSA may not intend to distribute some of the collected information to the public, the agency is overlooking the implications of allowing access to the information by non-federal officials. PHMSA no longer has control over the information once a state official is given access to these records. The data becomes a state record and subject to state open public record statutes or sunshine laws. These laws typically provide less protection than the federal Freedom of Information Act (FOIA). The state statutes err on the side of broad disclosure. Therefore, many states may be unable to protect sensitive pipeline data in their possession. For instance, in the State of Washington, "[t]he provisions of the act are to be liberally construed to promote full access to public records so as to assure continuing public confidence in governmental processes, and to assure that the public interest will be fully protected." *Spokane Police Guild v. Washington State Liquor Control,* 112 Wash. 2d 30, 33 (1989). A state's ability to enter a confidentiality agreement with a federal agency can be compromised by state law. The Washington State courts have held that "[p]romises cannot override the requirements of the disclosure law." *Id.* at 40 (citing *Hearst Corp. v. Hoppe,* 90 Wash. 2d 123, 137 (1978)).

[34] *See* sections IV, D (General Comments, Data Security) and Section III (Retained Attributes).
[35] *Id.*

The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 does not provide any additional protection. Section 11 of that law provides that the data collected under NPMS is only protected *if* it meets an existing FOIA exemption.[36] It is unlikely that PHMSA will be able to protect NPMS data in mass under FOIA. Rather, PHMSA would have to engage in time consuming efforts to consult with each operator on its individual data prior to responding to a FOIA request.

Unlike FERC, PHMSA does not have the statutory authority to limit pipeline data from disclosure, other than applying a relevant FOIA exemption. PHMSA's only recourse is to review FOIA exemptions, determine if any apply to the requested information, and release the information, if none are applicable. In contrast, FERC has the authority to limit mandatory disclosure of critical energy infrastructure information (CEII). FERC defines CEII as:

> …specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that: (1) relates details about the production, generation, transportation, transmission, or distribution of energy; (2) could be useful to a person in planning an attack on critical infrastructure; (3) is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552 (2000); and (4) does not simply give the general location of the critical infrastructure.[37]

It is hard to justify how PHMSA could release the same sensitive pipeline information that is classified by FERC as CEII and not publicly disseminated. PHMSA should exclude any data that is designated by FERC as CEII in its PIMMA or public viewer datasets.

IV. Conclusion

INGAA supports PHMSA's desire to improve its NPMS and make certain information more accessible to first responders and members of the public. However, INGAA has significant concerns with the scope and content of PHMSA's Revised ICR. Specifically, PHMSA's Revised ICR does not comply with OMB regulations. The agency is requesting many pipeline attributes that are unnecessary to achieve PHMSA's stated goals, the proposal is not the "least burdensome" approach as required by OMB regulations, and will ultimately lack a practical utility. PHMSA has not recognized the necessary security protections that would be required to protect the highly sensitive portions of the requested data. Finally, PHMSA has grossly

[36] *See* 49 U.S.C. § 60132. The Act states that "the Secretary may not disclose information collected pursuant to section (a) except to the extent permitted by section 552 of title 5." Section 552 of title 5 (FOIA) mandates the release of agency records unless an agency can apply one of the nine exemptions or three exclusions. Therefore, unless PHMSA can apply a FOIA exemption to the requested dataset, they would have to release the information to the public.

[37] *See* FERC Order. No. 683.

underestimated the costs of producing the data in the format and at the level of accuracy requested. INGAA urges PHMSA to review its Revised ICR with these implications in mind. In an effort to accomplish PHMSA's goal of modernizing NPMS but at a pace and cost burden that is sustainable for the regulated community, INGAA continues to support its counterproposal.

Appendix A

INGAA's 2014 Comments on the Initial ICR

December 1, 2014

Via www.regulations.gov and email

Mr. Jeff Wiese
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: Pipeline Safety: Request for Revision of a Previously Approved Information Collection—National Pipeline Mapping System Program (OMB Control No. 2137-0596), Docket No. PHMSA-2014-0092.

Dear Jeff:

The Interstate Natural Gas Association of America (INGAA), a trade association that advocates regulatory and legislative positions of importance to the interstate natural gas pipeline industry in North America, respectfully submits these comments in response to the Pipeline and Hazardous Materials Safety Administration (PHMSA)'s proposed revision of its National Pipeline Mapping System (the Information Collection Request or ICR).[1]

INGAA understands PHMSA's desire to improve and expand its existing pipeline infrastructure database. However, INGAA urges PHMSA to examine the necessity of certain data requests, review its ability to protect sensitive information from public disclosure, and reevaluate its burden estimate for the Information Collection Request.

INGAA appreciates your consideration of these comments.

Sincerely,

/s/
Terry Boss
Senior Vice President for Environment, Operations, and Safety
20 F Street, N.W., Suite 450
Washington, DC 20001
(202) 216-5900

[1] "Pipeline Safety: Request for Revision of a Previously Approved Information Collection—National Pipeline Mapping System Program (OMB Control No. 2137-0596)," 79 Fed. Reg. 44246 (July 30, 2014).

BEFORE THE
UNITED STATES DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
WASHINGTON, D.C.

Pipeline Safety: Request for Revision of a Previously Approved Information Collection—National Pipeline Mapping System Program (OMB Control No. 2137-0596)	Docket PHMSA-2014-0092

COMMENTS OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

December 1, 2014

Table of Contents

Executive Summary 1

Detailed Comments 2

I. The proposed information collection does not comply with the requirements of the Paperwork Reduction Act or the corresponding OMB regulations. 2

A. The proposed collection is not necessary to achieve the agency's stated goals. 2

1. Emergency responders do not need most of the information PHMSA is requesting. 2

2. The proposed collection is not the least burdensome approach the agency could take to improve its inspection methodology. 4

3. Several individual attributes are also unnecessary for the agency to achieve its stated goals. 5

B. The proposed collection requests information that is already accessible to the agency. 6

C. PHMSA has not considered the known technology issues and therefore the ICR lacks a "practical utility" as required under OMB regulations. 7

D. PHMSA's estimated burden is inaccurate and unsupportable 8

1. PHMSA should evaluate all of the factors included in OMB's definition of burden. 8

2. PHMSA has underestimated the total hours and costs for compliance with the ICR. 10

II. PHMSA has failed to describe how it will protect the collected information, some of which is highly sensitive. 12

III. Other clarifications are needed 14

IV. INGAA Proposal 15

V. Conclusion 17

Appendix A 18

Appendix B 19

Appendix C 20

Executive Summary

INGAA supports PHMSA's desire to improve its National Pipeline Mapping System (NPMS) and make certain information more accessible to first responders and members of the public. However, INGAA has significant concerns with the scope and content of PHMSA's Information Collection Request (ICR).

PHMSA has proposed an extensive revision of the existing NPMS by adding 31 new data requests and modifying the centerline accuracy requirements. INGAA's specific concerns with the ICR are as follows:

- PHMSA requests many pipeline attributes that are unnecessary to achieve PHMSA's stated goals. In the ICR, PHMSA asserts that it needs the requested information to educate emergency responders and bolster its risk ranking methodology for inspections. However, not all of the 31 attributes are helpful for emergency responders or are relevant for a risk-ranking methodology. Further, PHMSA's proposal is not the "least burdensome" approach as required by OMB regulations. Requesting pipeline operators to consolidate existing data into a different format and resubmit it to PHMSA in NPMS or submit data that the agency itself generates is not "the least burdensome approach" for the agency to achieve its goals.

- PHMSA has failed to take into account widely known issues with converting geospatial data. As proposed, the ICR would not yield a useful, valuable database to serve PHMSA's purposes.

- PHMSA has not acknowledged the necessary security protections that would be required to protect the highly sensitive portions of the requested data.

- PHMSA has grossly underestimated the costs of producing the data in the format and at the level of accuracy requested.

Because of these specific concerns, INGAA believes that PHMSA's ICR does not comply with the Paperwork Reduction Act (PRA) and the Office of Management and Budget (OMB)'s regulatory requirements for paperwork burdens. INGAA urges PHMSA to review its ICR with these implications in mind. PHMSA should also consider issuing this proposal as a rulemaking, instead of an isolated information collection request.

Finally, in an effort to accomplish PHMSA's goal of modernizing NPMS but at a pace and cost burden that is sustainable for the regulated community, INGAA puts forward a counterproposal for PHMSA's consideration.

Detailed Comments

I. The proposed information collection does not comply with the requirements of the Paperwork Reduction Act or the corresponding OMB regulations.

PHMSA's ICR does not comply with the PRA or OMB's regulations for paperwork burdens.[2] Congress passed the PRA in 1980 and amended it in 1995 to reduce the information burden imposed by the federal government.[3] The purpose of the PRA was "to have Federal agencies become more responsible and publicly accountable for reducing the burden of Federal paperwork on the public…"[4] PHMSA's ICR runs contrary to that goal by *expanding* the amount of information collected, rather than minimizing it. The ICR represents an extensive overhaul of the existing information collection and therefore, PHMSA should carefully review the proposed revisions.

As PHMSA is aware, in order to obtain OMB approval of an information collection, an agency must demonstrate that it has "taken every reasonable step" to ensure that the proposed collection:

> (i) is the least burdensome necessary for the proper performance of the agency's functions to comply with the legal requirements and achieve program objectives;
>
> (ii) is not duplicative of information otherwise accessible to the agency; and
>
> (iii) has a practical utility.[5]

PHMSA does not meet its burden of satisfying these requirements.

A. The proposed collection is not necessary to achieve the agency's stated goals.

1. Emergency responders do not need most of the information PHMSA is requesting.

---

[2] 5 C.F.R. § 1320.1 *et seq.*
[3] *See* 44 U.S.C. § 3501 (1995).
[4] *Id.*
[5] 5 C.F.R. § 1320.5(d) (2013).

PHMSA's primary reason for enhancing the NPMS is unsupportable. PHMSA relies heavily on the purported need to educate and prepare emergency responders for pipeline emergencies. Specifically, PHMSA stated that "[m]ore accurate and complete NPMS data will also help emergency responders and government officials create better, more appropriate emergency response plans."[6] PHMSA provides no support for this statement. To the contrary, emergency responders do not rely on the majority of the requested information to respond to a pipeline emergency. For instance, PHMSA requests special permit numbers, wall thickness, and the date of the last in-line inspection. This information does not influence an emergency responder's actions either on or before a pipeline accident. Instead, emergency responders rely on paper or digital maps and direct interaction with pipeline companies.

In further support of this point, in March 2014, Paradigm Alliance, Inc., on behalf of INGAA, surveyed emergency responders across the country seeking input on the preferred method for receiving pipeline facility information.[7] Almost 1,000 emergency responders completed the survey. Interestingly, only 7.4 percent of the 985 respondents listed NPMS as their preferred method to obtain pipeline facility information. Their preferred format is either a digital map or a paper map. In fact, 69 percent of respondents stated that they receive paper maps from their local pipeline operator. In addition, most respondents stated that the most useful information is the contact information for a pipeline company, commodity information for the pipeline(s) in their jurisdiction, and location of the pipeline facility. In terms of accuracy requirements, 68 percent of respondents stated that they do not require a centerline tolerance more accurate than current requirements for planning purposes. Of those that do, the majority stated that 100' was an acceptable accuracy tolerance. Finally, only **1.9 percent** or 19 of 985 respondents stated that they use NPMS frequently.

As illustrated by the INGAA survey, emergency responders do not need all of the detailed pipeline facility information PHMSA requests in its ICR. For instance, PHMSA notes that "knowing the type of leak detection system used during an incident will help emergency responders respond appropriately in the event of a release."[8] However, a first responder's actions on the day of an incident would not change if he or she knew the type of leak detection an operator uses. The first responder would still need to contact the pipeline operator. Although knowing *how long* it could take for a pipeline company representative to arrive on scene may help an emergency responder plan for responding to a pipeline incident, that issue is an entirely different question than what type of leak detection is used at a particular pipeline facility. Moreover, if an emergency responder is involved, the type of leak detection that was used is already moot. Knowledge of leak detection capabilities does not alter an emergency responder's reaction time or response to a pipeline incident.

---

[6] ICR, at 1.
[7] See Appendix A.
[8] ICR, at 2.

Many of the requested attributes will not help emergency responders, particularly in an isolated fashion. Knowing only the diameter or perhaps the PIR will not help emergency responders prepare for a pipeline incident. Rather, emergency responders benefit from the discussions and information that is disseminated as part of the pipeline safety public awareness requirements. Permitting access to isolated single attributes does not help an emergency responder prepare for an incident.

An emergency responder needs the commodity type transported, pipeline operator contact information, and general location information. PHMSA's Geographic Information System (GIS) Manager acknowledged this point during the 2013 Gas Pipeline Advisory Committee meeting. She stated that NPMS needs to be expanded in order to "...better identify, regulate, and respond to emergencies for our regulatory assets. And to do that, *we need to know where they are and exactly what type of asset it is.*"[9] Both datasets (centerline location and commodity information) are already part of NPMS and are provided to emergency responders as part of the PHMSA public awareness requirements.[10] PHMSA has failed to demonstrate why expanding information submitted to the NPMS to include 31 separate attributes for each individual pipeline segment will assist emergency responders.

The National Transportation Safety Board (NTSB) has also recommended that PHMSA enhance the pipeline facility information the agency collects; however, its recommendation was much narrower in scope.[11] The NTSB recommended that emergency responders know the pipe diameter, operating pressure, product transported, and the potential impact radius of each pipe in their jurisdiction.[12] In August 2013, almost a year prior to the publication of the ICR, PHMSA requested that the NTSB close this recommendation.[13] Certainly, requesting closure of a NTSB recommendation signifies that PHMSA believed it had made enough improvements to meet emergency responders' needs.

2. The proposed collection is not the least burdensome approach the agency could take to improve its inspection methodology.

PHMSA has failed to demonstrate that the proposed ICR satisfies the OMB review factors for an information collection. The information that PHMSA proposes to collect is not the least burdensome necessary and is duplicative of information already submitted by pipeline operators. PHMSA's statement that the enhanced data collection is necessary to "strengthen the

---

[9] *See* PHMSA-2013-0156-0016, at 21 (emphasis added).

[10] 49 C.F.R. Part 192, Subpart L (2014).

[11] *See* NTSB Recommendation P-11-8.

[12] In its request for closure, PHMSA listed all of the actions it had taken to enhance pipeline facility information for emergency responders. PHMSA did not express any need to expand NPMS.

[13] http://phmsa.dot.gov/pv_obj_cache/pv_obj_id_DAB70470F126852F756F3AE2CEA7C90100E97100/filename/Report_to_Congress_on_NTSB_and_OIG_Recommendations.pdf

effectiveness of [its] risk rankings and evaluations, which are used as a factor in determining pipeline inspection priority and frequency"[14] does not overcome this deficiency.

Although having the requested data in one database might be more efficient for PHMSA's inspection process, it certainly is not the least burdensome approach to achieve this goal. PHMSA already collects most of the requested data through other information collections such as the annual reporting requirements or its integrated inspection process whereby the agency comprehensively inspects a pipeline's implementation of multiple regulatory programs. PHMSA could enhance its current risk ranking methodology by inputting the information from its existing data sources without imposing new and duplicative information burdens on the regulated community. As described below, the costs to comply with the ICR are significant. PHMSA can easily achieve its goal through other means.

3. Several individual attributes are also unnecessary for the agency to achieve its stated goals.

INGAA is also concerned with PHMSA's reasoning for a handful of attributes it would require under the ICR. There is a notable disconnect between PHMSA's stated need and the type of information requested. For example, PHMSA requests data on the installation method of pipe segments that cross bodies of water greater than 100 feet in width.[15] The response choices are open cut, trenchless technology, and other. The agency's reasoning for requiring this information is that it will "...give pipeline inspectors the ability to verify the depth of cover of pipeline segments under water."[16] However, PHMSA does not explain how an inspector will verify the depth of cover for a pipeline that is under water without conducting a depth of cover survey or using other underwater survey techniques. PHMSA also does not explain how the requested information will further the agency's objectives.

In addition, PHMSA fails to demonstrate how requesting certain information is needed to comply with legal requirements or to achieve program objectives. For example, PHMSA requests average daily throughput for each pipeline segment. PHMSA's reasoning is "so states can better identify shortages and implement contingency plans for potential widespread pipeline service outages to maintain an uninterrupted flow of energy supplies."[17] However, reliability and capacity is subject to the Federal Energy Regulatory Commission (FERC)'s jurisdiction, not PHMSA's. FERC collects throughput information on its Form 2 for gas pipelines and Form 6 for oil pipelines. PHMSA should eliminate this particular data request. It is unnecessary given that it is irrelevant to PHMSA's program objectives, it is already collected (at the system level) by another federal agency, and it is security and commercially sensitive (when collected at the segment level). Collecting this type of information at the segment level could also create

[14] ICR, at 2.
[15] ICR, at 3.
[16] *Id.*
[17] *Id.*

considerable market implications. Finally, this data request is tremendously burdensome. Operators would need to isolate the daily throughput for *each* pipe segment in order to comply with this NPMS proposed requirement.

PHMSA should reconsider the breadth of its NPMS proposal because most of the information sought is unnecessary to achieve its stated goals.

B. The proposed collection requests information that is already accessible to the agency.

PHMSA's ICR does not satisfy OMB criteria because it seeks data that is duplicative of information already accessible to the agency. PHMSA already has access to almost every one of the 31 proposed attributes identified in the ICR. Specifically, PHMSA collects similar information through its annual reporting requirements. For example, operators already submit the year of construction or installation (in a range) to PHMSA in the annual report.[18] The agency also obtains pipeline specific information through its integrated inspection program. In the ICR, PHMSA failed to confirm whether it would replace the annual reporting requirements with an enhanced NPMS. This lack of clarity leaves open the question whether operators will have to accommodate multiple data requests seeking the same information. Asking operators to resubmit the information in a different format may be more efficient for PHMSA but creates a significant burden on the regulated community.

Further, OMB's paperwork burden regulations prohibit duplicative collections that serve only to minimize agency costs and efforts. "The agency shall also seek to minimize the cost to itself of collecting, processing, and using the information, but shall not do so by means of shifting disproportionate costs or burdens onto the public."[19] Although PHMSA has statutory authority to collect additional geospatial information, the data requested must be deemed necessary by the Secretary.[20] PHMSA has failed to demonstrate that the requested information meets this standard.

The ICR also is duplicative of existing information collection requirements under PHMSA's public awareness regulations.[21] Under 49 C.F.R. §§ 192.605 and 192.615, pipeline facility operators must include provisions for coordinating with appropriate fire, law enforcement, emergency management, and other public safety officials in their emergency plans. Operators must also develop and implement a written public education program pursuant to § 192.616. PHMSA requires pipeline operators to establish a liaison with emergency responders in each locality that their pipelines traverse. Operators must submit maps of their systems and hold

---

[18] Operators submit a range of installation years in the annual report. PHMSA is requesting the actual year of installation in its revisions to NPMS.
[19] 5 C.F.R. § 1320.5(d)(iii).
[20] *See* Section 11 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011.
[21] *See* 49 C.F.R. Part 192, Subpart L.

ongoing discussions with the first responders. In the ICR, PHMSA fails to acknowledge these existing requirements and does not mention the effect the proposed expansion of NPMS would have on these requirements.

Finally, PHMSA requests information that the agency itself generates. In the ICR, PHMSA requests that operators identify each segment that is currently operating under an active special permit, determine whether the segment has a different MAOP than otherwise allowed under the regulations, and resubmit the special permit number. PHMSA's reasoning is that "[t]his allows PHMSA to more easily locate these pipe segments and could help emergency responders respond adequately in the event of an emergency." [22] This request is a textbook example of what the PRA was designed to prevent. PHMSA is the issuer of special permits and therefore already has all of the requested information including the permit number, approved changes to MAOP, and latitude and longitude of each special permit segment and inspection area. Requesting operators to resubmit it in GIS format is duplicative and unnecessary.

C. PHMSA has not considered the known technology issues and therefore the ICR lacks a "practical utility" as required under OMB regulations.

Under the PRA and OMB regulations, PHMSA must demonstrate the capability to process the collected information in a timely and useful manner.[23] 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."[24] PHMSA has failed to take into account the known accuracy issues that occur when converting data from a company's GIS system and associated coordinated reference system to the agency's system. The coordinate transformation may introduce errors of 5 feet to 40 feet and will lead to deteriorated data beyond the requested level of positional accuracy.

The problem often stems from issues with base mapping. Base map imagery is required to provide accurate geography to position all feature data relative to its true location. Base map imagery is available in a variety of sensor-platforms, spectral bands, viewing-angles, resolutions, accuracies, and pricing. Base maps, therefore, are highly variable. Conversion of data from one base map to another can result in errors and inconsistencies. The information collection may be useless if the information is inaccurate or incomprehensible after it is downloaded. PHMSA should modify the ICR to eliminate collecting extensive data, particularly linear accuracy tolerances, until advances in technology eliminate this "lost in translation" issue.

---

[22] ICR, at 3.
[23] *See* 44 U.S.C. § 3502(11) (1995).
[24] 5 C.F.R. § 1320.3(l).

Finally, PHMSA does not demonstrate the practical utility of requiring data on abandoned pipelines to "...ensure that they are maintained in the proper manner in accordance with pipeline safety regulations."[25] Under PHMSA's regulations and a recent interpretation, abandoned pipelines are not *maintained* because the operator has made the determination that the line will not be returned to service. Rather, the abandoned pipe would have been purged and capped in accordance with 49 C.F.R. § 192.727. If a pipeline is truly abandoned, it should not be a "critical integrity management issue" as PHMSA suggests.

D. PHMSA's estimated burden is inaccurate and unsupportable.

1. PHMSA should evaluate all of the factors included in OMB's definition of burden.

PHMSA's burden estimate of 420,516 hours for 1,211 respondents is inaccurate. OMB defines burden as "...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."[26]

PHMSA's burden estimate fails to recognize all of these factors. First, and most importantly, some of the requested information is not readily available in geospatial format. Operators know the various attributes for each pipe segment but all of the information is not currently in a geospatial format. Some of it is contained in paper records and operators would have to devote significant resources to convert that information. It is a tedious process to change stationing and maintain a connection to physical records. INGAA conducted a survey of its members to identify how many companies have the requested information readily available in the format required. None of the 17 companies that responded had all of the information in the format requested by PHMSA incorporated into their GIS today.[27] For the pipelines located in HCAs, the responding companies reported an availability range of 0 to 27% for each newly requested attribute (PHMSA linear accuracy and format). For non-HCAs, the range was 0 to 21%.

PHMSA's burden estimate fails to account for having to run tools and assimilate historical data into an operator's GIS system. For instance, hydrotest information and MAOP information

[25] *Id.* at 2.
[26] 5 CFR 1320.3(b)
[27] *See* copy of INGAA survey at Appendix B.

come from different data sources. In some cases, such as coating, an operator would have to validate the data in the field.

PHMSA also fails to consider that operators will have to upgrade or acquire a new GIS to accommodate all of the additional data fields. Pipeline operators' GIS systems were built to incorporate a limited amount of information. PHMSA seems to assume that operators will be able to use their existing systems to accommodate 31 new data requests and incorporate linear accuracy requirements. This assumption is incorrect.

Third, because many facilities are buried under ground, achieving the proposed spatial accuracy of the centerline and proposed linear accuracy of the pipeline attributes will require significant validation in the field or the acquisition of new technology, such as the "as-built pig" that is in development. However, this technology is not widely available, can be costly, and is only applicable to pipelines that can be pigged. PHMSA's estimate does not consider the burden that will be imposed on operators with respect to these activities. PHMSA should adjust the scope and schedule of its ICR based on the availability of this technology.

Fourth, PHMSA fails to account for the fact that some operators may have to reconfigure their GIS to isolate each change in wall thickness, change in coating, etc. along each segment of pipeline. Previously, PHMSA only requested spatial location. If operators now have to confirm linear accuracy to demonstrate the exact point where the change in attribute occurs, then operators may have to create additional pipeline segments in their GIS system to capture these changes.[28] For each change in an attribute, a new segment would be needed. For the linear accuracy requirements, an operator will have to revalidate that the data is within +/-5 or 50 feet. Most of this will require field work through surveying and probing the line, digging up the pipe or doing core sampling. Only a limited number of vendors are available to conduct this type of work, which means that many operators could experience delays as they coordinate with a particular vendor's availability. INGAA's estimated costs could also increase dramatically on account of these delays.

Finally, the estimated burden associated with complying with the ICR should also include the training and resources that will be needed to maintain the information.

[28] PHMSA's ICR was not clear whether the agency intends to impose +/- 5 feet and 50 feet accuracy requirements on all linear attributes in addition to the centerline positional accuracy requirements. INGAA is assuming that PHMSA is also proposing linear accuracy requirements for each pipeline attribute given that PHMSA stated that "unless otherwise marked, all attributes will be linked to the geospatial pipeline file as attributes at the pipe segment level." ICR, at 2.

A company with an average GIS system would need to conduct, at a minimum, the following tasks to comply with PHMSA's ICR:

1. Perform a field centerline survey of the pipeline using either a survey crew for non-piggable lines or an in-line inspection tool with Inertial Measurement Unit (IMU) for lines which are piggable.
2. Use existing GIS data for all features along the pipeline to achieve 50 foot accuracy.
3. Develop a Pipeline Feature List (PFL). A PFL is a research project that gathers the original documentation for all factors involved in a MAOP calculation and includes a correlation of the identified pipe features with in-line inspection data and highly accurate aerial imagery. A PFL typically lists the various features (tees, taps, valve, pipe, etc.) on the pipeline and fills in the various applicable MAOP factors from the documentation. Discrepancies are resolved based on data source accuracy. This is usually performed on a foot by foot basis along the pipeline and covers every feature. This provides the basis for achieving a higher degree of accuracy, which may be less than five feet, but can depend on source material quality.
4. Purchase highly accurate aerial imagery to use as the base map for the overlay of all data.
5. Prepare the pipeline for ILI tool run with IMU.
6. Run the ILI tool with IMU.
7. Perform data integration of ILI data with existing GIS data.
8. Purchase and maintain Data Transformation Software.
9. Train staff in the use of the Data Transformation Software.
10. Develop export routines to perform data remodeling and schema mapping to get in-house GIS data schema into the format requested by PHMSA.
11. Perform annual data exports to submit in-house GIS datasets into the NPMS schema.

PHMSA's burden estimate fails to account for these costs and consequently, has substantially underestimated the burden of complying with the ICR.

2. PHMSA has underestimated the total hours and costs for compliance with the ICR.

PHMSA has substantially underestimated the number of hours and costs that operators will incur to comply with the ICR. The cost burden estimated by PHMSA breaks down to approximately 14 days of man-hours for each respondent. Typically, burden estimates are calculated on a per mile basis. As an example, on November 7, 2013, PHMSA submitted its justification for the renewal of the current information collection that supports NPMS.[29] PHMSA's burden estimate for this renewal (without any new requirements) was 16,312 hours for 894 respondents. Using 2004 Department of Labor statistical information, PHMSA estimated the 2013 renewal to take

[29] *See* Supporting Statement at http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201309-2137-001.

approximately two minutes per mile and cost $1,056,202.[30] This estimate was based on 420,117 miles. Just one year later, PHMSA has proposed a complete overhaul of the NPMS and in comparison estimates the burden hours at 420,516 hours. This total breaks down to 60 minutes per mile to reconfigure existing GIS systems, potentially develop new GIS systems, train employees, review pipeline records, input the historical information into the GIS system, and conduct field work potentially digging up portions of the pipe to confirm accuracy tolerances. Using PHMSA's 2013 figure for NPMS pipeline mileage of 420,117 and updated 2013 Department of Labor information, PHMSA's total cost estimate is approximately $37,564,694.28.[31]

Although $37 million is certainly a costly initiative, this total significantly underestimates the true costs of PHMSA's proposal. INGAA has computed its own burden estimate and the anticipated cost of the ICR for only INGAA member companies (approximately 180,000 miles out of 290,000 reported gas transmission miles) could exceed $820 million.[32] This is a stark comparison to the PHMSA's burden estimate.

INGAA divided its cost estimate into four major categories.[33]

1. Pipelines that are non-piggable (+/- 50 feet)	$4,510 per mile
2. Pipelines that are piggable and currently have centerline accuracy better than five feet	**$9,580 per mile**
3. Pipelines that are piggable but need improved centerline accuracy	$11,580 per mile
4. Pipelines that can be made piggable.	**Included in the costs of non-piggable**

These are resources that would be diverted away from other activities that would improve safety.

[30] http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201309-2137-001

[31] INGAA used the 2013 Department of Labor median hourly wage of an engineering manager (NAICS 486000) and added 35 percent similar to PHMSA's 2013 calculation. The 2013 median hourly wage of an engineering manager (for NAICS 486000-pipeline transportation) is estimated to be $66.17. In following PHMSA's 2013 calculation, INGAA added 35 percent as estimated fringe benefits. The full cost of an engineering manager is therefore $89.33 per hour. http://www.bls.gov/oes/current/naics3_486000.htm#17-0000.

[32] INGAA's present cost estimates are based on information for mainline and transmission laterals only.

[33] *See* Appendix C.

PHMSA's Advisory Committee members have advised the agency about the potential costs that would be involved in requiring five foot accuracy. During the August 2013 Advisory Committee meeting, Chad Zamarin of the Gas Pipeline Advisory Committee stated that "...I think it is important just to note that the better the accuracy, the higher the costs for the operator. It sounds simple. GPS technology has come a long way, but it still requires an extensive amount of manpower and expense to go out and survey lines."[34] Mr. Zamarin also stated that "...there are areas of our systems where you can't achieve submeter. You know, in mountainous terrain, it is sometimes very difficult to get the same accuracy that you can get in the open plain."[35] However, PHMSA has not taken into account these concerns when calculating their burden estimate.

Given the staggering costs to comply with the proposed ICR ($820 million for only INGAA members), PHMSA should substantially narrow the data requested under the ICR, or alternatively consider proposing the ICR as a rulemaking. The anticipated costs for compliance far exceed the $100 million threshold for a significant rulemaking. PHMSA should afford the same review and analysis to this information collection as would be given to a significant rulemaking.

PHMSA should consider all of these concerns before finalizing its NPMS requirements.

II. PHMSA has failed to describe how it will protect the collected information, some of which is highly sensitive.

Much of the information PHMSA is requesting in the ICR would create an infrastructure security risk if exposed or is commercially sensitive. Most importantly, PHMSA is proposing to consolidate all of this information (some which is already collected by the agency and some of which is not) and place it in a centralized, online location. Yet, PHMSA fails to acknowledge any security protections or limitations on public access to the data it is requesting. PHMSA is certainly aware of the security implications given that this topic was discussed extensively during the August 2013 Advisory Committee meeting and during informal stakeholder meetings in November 2013. The information PHMSA is requesting, particularly daily throughput at the segment level, wall thickness, and maximum allowable operating pressure is proprietary. Taken together, these attributes could be useful to anyone wanting to commit harm to the nation's energy infrastructure.

While INGAA understands PHMSA's desire to enhance its database, PHMSA should not lose sight of the serious security implications of its proposal. As discussed during the November 17th public meeting, the present data security policies and processes that PHMSA relies do not compare to other agencies handling sensitive information. PHMSA must ensure that it can protect the data prior to collecting this sensitive information.

---

[34] *See* PHMSA 2013-0156-0016, at 44.
[35] *Id.* at 49.

Although PHMSA may not intend to distribute some of the collected information to the public, the agency is overlooking the implications of allowing non-federal officials access to the information. PHMSA no longer has control over the information once a state official has access to these records. The data becomes a state record and subject to state open public record statutes or sunshine laws. These laws typically provide less protection than the federal Freedom of Information Act (FOIA). The state statutes err on the side of broad disclosure. Therefore, many states may be unable to protect sensitive pipeline data in their possession. For instance, in the State of Washington, "[t]he provisions of the act are to be liberally construed to promote full access to public records so as to assure continuing public confidence in governmental processes, and to assure that the public interest will be fully protected." *Spokane Police Guild v. Washington State Liquor Control,* 112 Wash. 2d 30, 33 (1989). A state's ability to enter a confidentiality agreement with a federal agency can be compromised by state law. The Washington State courts have held that "[p]romises cannot override the requirements of the disclosure law." *Id.* at 40 (citing *Hearst Corp. v. Hoppe,* 90 Wash. 2d 123, 137 (1978)).

The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 does not provide any additional protection. Section 11 of that law provides that the data collected under NPMS is only protected *if* it meets an existing FOIA exemption.[36] It is unlikely that PHMSA will be able to protect NPMS data in mass under FOIA. Rather, PHMSA would have to engage in time consuming efforts to consult with each operator on its individual data prior to responding to a FOIA request.

Unlike FERC, PHMSA does not have the statutory authority to limit pipeline data from disclosure, other than applying a relevant FOIA exemption. FERC has the authority to limit mandatory disclosure of critical energy infrastructure information or CEII. FERC defines CEII as:

> ...specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that: (1) relates details about the production, generation, transportation, transmission, or distribution of energy; (2) could be useful to a person in planning an attack on critical infrastructure; (3) is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552 (2000); and (4) does not simply give the general location of the critical infrastructure.[37]

---

[36] *See* 49 U.S.C. § 60132. The Act states that "the Secretary may not disclose information collected pursuant to section (a) except to the extent permitted by section 552 of title 5." Section 552 of title 5 (FOIA) mandates the release of agency records unless an agency can apply one of the nine exemptions or three exclusions. Therefore, unless PHMSA can apply a FOIA exemption to the requested dataset, they would have to release the information to the public.

[37] *See* FERC Order. No. 683.

It is hard to justify how PHMSA could release the same sensitive pipeline information that is classified by FERC as CEII and not publicly disseminated. PHMSA's only recourse is to review FOIA exemptions, determine if any apply to the requested information, and release the information, if none are applicable.

In order to resolve this issue, INGAA suggests that PHMSA isolate the data it truly needs to incorporate in NPMS. PHMSA should reconsider whether all of the requested attributes need to be in NPMS and accessible by state and local officials and potentially public viewers. INGAA urges PHMSA to consider how it will protect sensitive pipeline data prior to collecting it.

III. Other clarifications are needed.

INGAA requests that PHMSA clarify the following issues in the ICR:

Scope of Information Collection

First, PHMSA should clarify the scope of the information request. The NPMS Operator Standards Manual (Standards Manual) states that certain requirements only apply to mainline pipe. This raises the question whether the other proposed requirements such as a diameter, wall thickness, etc. apply to all pipelines or just mainline pipelines. If it is PHMSA's intention to collect information on facility piping, it should clarify this point and factor in the costs and time of upgrading existing GIS systems to include this type of data.

In addition, 49 U.S.C. § 60132 excludes distribution and gathering pipelines from NPMS requirements. However, PHMSA has included offshore gas gathering in its ICR. PHMSA should be mindful that (1) gathering pipelines are not subject to NPMS requirements per the statute and (2) geospatial data for offshore gas transmission pipelines are already collected by the Bureau of Safety and Environmental Enforcement.

Finally, PHMSA states in the ICR that the five-foot positional accuracy requirements apply to "pipeline segments located within Class 3, Class 4, High Consequence Areas, or 'could affect' HCAs".[38] However, in the Standards Manual, PHMSA states that these same requirements apply "when a gas transmission line could affect a High Consequence Area **and** is in a Class 3 or 4 location." INGAA requests clarification on this discrepancy.

Use of idle or retired

In the NPMS Operator Submission Guide, PHMSA requests that operators designate their pipeline facilities as "in-service", "idle", "abandoned", or "retired".[39] Yet at the same time, PHMSA has stated publicly that the agency does not recognize idle or retired pipelines.[40]

[38] ICR, at 2.
[39] NPMS Operator Submission Guide (February 2014) at 53.

Timing. PHMSA did not list a proposed effective data in the ICR. During the 2013 Advisory Committee meeting, PHMSA's GIS Manager stated that "we are going to give the operators enough time to re-GPS lines, if needed...[f]or older lines that might need to be re-GPSed, we are building the time into the timeframe of this information collection."[41] Operators are aware that the ICR is only the first of two notices and OMB will take at least 60 days to review PHMSA's request. However, PHMSA should indicate when this proposal *could* take effect as this information is critical to developing an accurate burden estimate. Given the significant amount of work needed to comply with this proposal, PHMSA should recognize that a 2016 effective date for all 31 attributes is unrealistic.

Predominant

PHMSA uses the word "predominant" to characterize the information needed for pipe grade, class location, and year of construction or installation. However, PHMSA does not define "predominant" in the ICR or the Standards Manual. PHMSA offers no context to explain what it means by "predominant."

Nominal diameter

PHMSA is seeking nominal diameter computed to at least three decimal places. In the Standards Manual, PHMSA defines "nominal" as "a dimensionless designator of pipe that indicates the standard pipe size".[42] PHMSA should clarify whether it is requesting nominal or actual outside diameter and ensure that its definition is consistent.

IV. INGAA Proposal

INGAA understands PHMSA's desire to improve the existing NPMS and modify its risk-based inspection methodology. Notwithstanding the arguments discussed above, INGAA suggests the following attributes and timing as a possible path forward to achieve PHMSA's goals yet address the concerns articulated in these comments.

Scope of Collection

INGAA has examined PHMSA's 31 proposed attributes and identified those that will result in a meaningful improvement to NPMS for PHMSA and other stakeholders. These attributes are:

- Pipe Material (e.g. steel, plastic, cast iron)
- Nominal Pipe Diameter

---

[40]Statement by Administrator Quarterman during House Transportation and Infrastructure Committee, Subcommittee for Railroads and Pipelines, http://www.c-span.org/video/?319490-1/pipeline-safety-review&start=5318 at 1:35 (May 20, 2014). "There are active pipelines and there are abandoned pipelines" "The term 'idle pipeline' does not exist in pipeline law."

[41] PHMSA-2013-0156-0016 at 41.

[42] Standards Manual, at 86.

- HCAs (beginning and ending points existing at the beginning of reporting year)
- Method used to determine HCA (Method 1 or 2)
- Pipe Coated (Y/N)
- Cathodically Protected (Y/N)
- Is the segment piggable or able to be internally inspected (Y/N)
- Commodity type (e.g. natural gas)
- Support AGA's proposal to indicate low-stress pipelines using the 30 percent SMYS threshold

INGAA would commit to provide these attributes without linear accuracy constraints to PHMSA by 2016.

In addition, INGAA is willing to commit to 50' centerline accuracy in accordance with the following schedule. This level of positional accuracy will assist emergency responders, the public, PHMSA and state regulators. An accuracy tolerance of five feet is infeasible.

Timing of Collection

PHMSA's modifications to NPMS should be phased in over time.

Phase	NPMS Submission	Proposed Centerline Accuracy
1	2016	Best Estimate Available (actual accuracy rather than conservative estimate) using the following categories: • ≤ 50 feet • 51 feet - 100 feet • ≥ 101 feet
2	2016-2023	Incremental improvements for centerline accuracy as operators conduct integrity management assessments on a seven year rolling basis
3	2023	70 percent of INGAA mileage=50 feet (this mileage covers 90% of the population) 30 percent of INGAA mileage=100 feet

This phased-in approach coordinates field verifications with existing integrity management requirements and thereby significantly reduces the actual compliance burden as well as the burden estimate for the information collection. The additional time also allows for improvements in technology to avoid base mapping and other concerns addressed above. This proposal strikes a balance between PHMSA's desire to enhance NPMS and the burden on the

regulated community by narrowing the collection to necessary and useful information and avoiding duplication.

INGAA also suggests that PHMSA create a working group of stakeholders, similar to the previous MAPQUAT 1 and 2 teams, to develop a sensible plan to modify NPMS. The working group could evaluate the definition, format, and security sensitivity of the remaining data requested by PHMSA.

V. Conclusion

INGAA supports PHMSA's desire to improve its NPMS and make certain information more accessible to first responders and members of the public. However, INGAA has significant concerns with the scope and content of PHMSA's ICR. Specifically, PHMSA requests many pipeline attributes that are unnecessary to achieve PHMSA's stated goals, the proposal is not the "least burdensome" approach as required by OMB regulations, and it lacks a practical utility. PHMSA has not acknowledged the necessary security protections that would be required to protect the highly sensitive portions of the requested data. Finally, PHMSA has grossly underestimated the costs of producing the data in the format and at the level of accuracy requested. Because of these specific concerns, PHMSA's ICR does not comply with the PRA or OMB's regulatory requirements for paperwork burdens. INGAA urges PHMSA to review its ICR with these implications in mind.

Finally, in an effort to accomplish PHMSA's goal of modernizing NPMS but at a pace and cost burden that is sustainable for the regulated community, INGAA puts forward a counterproposal for PHMSA's consideration.

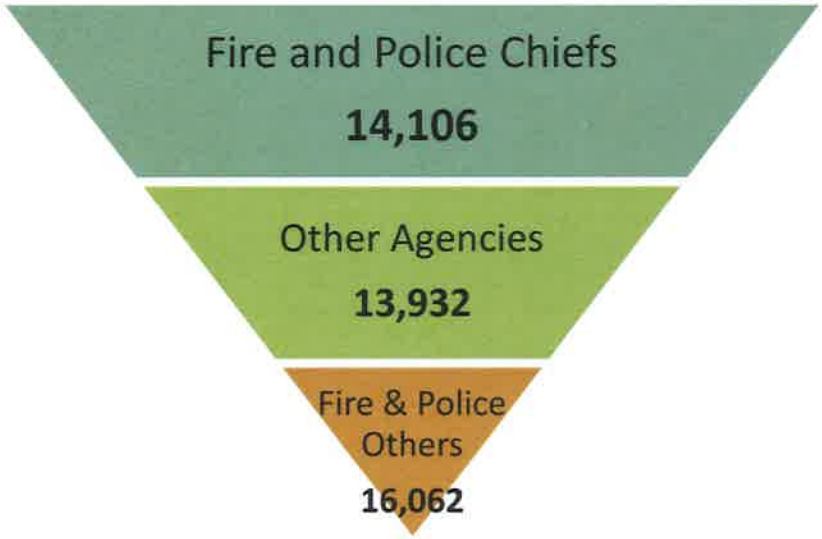
Study Objectives and Methodology

The Interstate Natural Gas Association of America (INGAA) chose to survey emergency response officials on-line survey to:

1. Understand the importance of pipeline operators supplying mapping,
2. What emergency response officials utilize maps for,
3. Gauge emergency response officials expectations for accuracy of the maps, and
4. Understand what method emergency response officials wished to receive maps.

INGAA partnered with Paradigm to request emergency response officials participation in the study. Paradigm manages a national stakeholder database, which contains permission based e-mail addresses, obtained through implementing pipeline operator public awareness programs. Paradigm utilized an INGAA supplied questionnaire and solicited feedback through an on-line survey mechanism to collect survey data. The distribution was tiered in order of rank for the purposes of monitoring results.

Stakeholder Audience Breakdown



Sample Size and Margin of Error

Population	96,605
Distribution	28,121
Delivered	22,173
Sample Size	985
Confidence Factor	95%
Margin of Error	± 3.12%

Appendix A

Constant Contact Survey Results

Survey Name: 2014 INGAA Emergency Emergency Responder Survey

Response Status: Partial & Completed

Filter: None

3/3/2014 3:05 PM CST

*My department is (select one):

Answer	0% 100%	Number of Response(s)	Response Ratio
Volunteer		575	58.3 %
Paid		227	23.0 %
Combination		180	18.2 %
No Response(s)		3	<1 %
	Totals	**985**	**100%**

*I have been in my position for (select one):

Answer	0% 100%	Number of Response(s)	Response Ratio
Less than 1 year		48	4.8 %
1-5 years		260	26.3 %
5-10 years		195	19.7 %
10-20 years		209	21.2 %
More than 20 years		272	27.6 %
No Response(s)		1	<1 %
	Totals	**985**	**100%**

*In your role as an emergency responder, how useful are maps depicting natural gas and/or petroleum pipelines in your jurisdiction? (One answer only)

Answer	0% 100%	Number of Response(s)	Response Ratio
Very useful		789	80.1 %
Somewhat useful		175	17.7 %
Not at all useful		20	2.0 %
No Response(s)		1	<1 %
	Totals	**985**	**100%**

*Has your local pipeline company provided a map to you or your agency when requested?

Answer	0% 100%	Number of Response(s)	Response Ratio
Yes		536	54.4 %
No		447	45.3 %
No Response(s)		2	<1 %
	Totals	**985**	**100%**

TextBlock:

If "yes" answer questions 5, 6 and 7. If "no", skip to question 8.

Please specify which company(s) provided the map(s).

392 Response(s)

What was the format of the map? (Check all that apply)

Answer	0% 100%	Number of Response(s)	Response Ratio
Digital/electronic image		82	16.8 %
They provided me with a link to the National Pipeline Mapping System		153	31.3 %
Paper copy from the pipeline operator		340	69.6 %
Online mapping or GIS files from the pipeline operator		40	8.1 %
State / county / municipal maps that include natural gas pipelines		106	21.7 %
Other		16	3.2 %
	Totals	**488**	**100%**

What
did you do with the map? (Check all that apply)

Answer	0% 100%	Number of Response(s)	Response Ratio
Looked at it once		65	12.8 %
Posted it in a location where it is available to others		234	46.1 %
Filed it away for future reference		231	45.5 %
Used it for emergency or community planning		175	34.5 %
Discarded it		3	<1 %
Other		56	11.0 %
	Totals	**507**	**100%**

*What is your preferred format for receiving maps?

Answer	0% 100%	Number of Response(s)	Response Ratio
Digital/electronic image		302	30.6 %
The National Pipeline Mapping System website		73	7.4 %
Paper copy from the pipeline operator		345	35.0 %
Online mapping or GIS files from the pipeline operator		77	7.8 %
State/county/municipal maps that include natural gas pipelines		164	16.6 %
Other		17	1.7 %
No Response(s)		7	<1 %
	Totals	**985**	**100%**

*What pipeline related information is most important to you in your role as an emergency responder (ex. contact information, location, etc)?

946 Response(s)

*Based on your answer to question 7, is there a pipeline location accuracy required for your planning purposes?

Answer	0% 100%	Number of Response(s)	Response Ratio
Yes		291	29.5 %
No		672	68.2 %
No Response(s)		22	2.2 %
	Totals	**985**	**100%**

If "yes" please specify in feet.

191 Response(s)

*Are you aware of the National Pipeline Mapping System (NPMS)?

Answer	0% 100%	Number of Response(s)	Response Ratio
Yes		626	63.5 %
No		347	35.2 %
No Response(s)		12	1.2 %
	Totals	**985**	**100%**

*Have you used the National Pipeline Mapping System (NPMS)?

Answer	0% 100%	Number of Response(s)	Response Ratio
I have not heard of it		319	32.3 %
I have heard of it but have never used it		436	44.2 %
I have used it once or twice		206	20.9 %
I use it frequently		19	1.9 %
No Response(s)		5	<1 %
	Totals	**985**	**100%**

TextBlock:

Based on your answers to question 13:If you have heard of or used the NPMS,

The NPMS is a website that provides the general location, contact information, and product type of transmission pipelines in the United States. How helpful is a website like this to you in your role as an emergency responder?

Answer	0% 100%	Number of Response(s)	Response Ratio
Very		477	48.4 %
Somewhat		273	27.7 %
Not at all likely		45	4.5 %
No Response(s)		190	19.2 %
	Totals	**985**	**100%**

How useful was the NPMS system?

Answer	0% 100%	Number of Response(s)	Response Ratio
Very useful		269	27.3 %
Somewhat useful		275	27.9 %
Not at all useful		44	4.4 %
No Response(s)		397	40.3 %
	Totals	**985**	**100%**

TextBlock:

The NPMS is a system available to the public. There is a similar system called PIMMA (Pipeline Information Management Mapping Application) that has more information for local officials.

Have you requested PIMMA access?

Answer	0% 100%	Number of Response(s)	Response Ratio
Yes. It was helpful in seeing more detailed information.		90	9.1 %
Yes. I do not believe I was ever granted access.		42	4.2 %
Yes. I couldn't tell whether it made a difference in the level of information provided.		29	2.9 %
No		720	73.0 %
No Response(s)		104	10.5 %
	Totals	**985**	**100%**

*Personal Information

Answers	Number of Response(s)
First Name	920
Last Name	920
Job Title	920
Company Name	920
Work Phone	920
Email Address	920
Address 1	920
City	920
State/Province (US/Canada)	920
Postal Code	920

Mileage Summary	
Total Class Location Miles	
Number of HCA Miles Onshore	
Miles of Class Location - Class 3	
Miles of Class Location - Class 4	
Estimated Total Miles of HCA or Class 3 or 4	

	Yes	No
Do you presently have a Geographic Information System (GIS)		
aPipelineSystem - Do you have the sub system (SUBSYS_NM) average throughput defined in your present GIS system? (Y or N)		

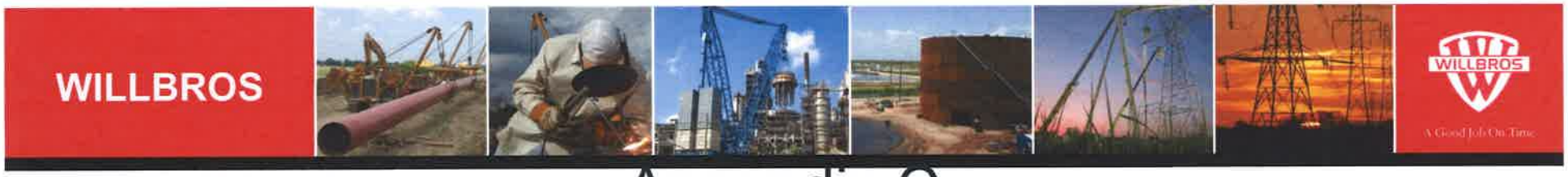
SUMMARY	Do you have this information in this format recorded presently in this format in your GIS system		If Yes for the first question, do you have this particular information recorded in a GIS to the accuracy of 5 feet?		How much mileage do you have this information recorded in your GIS within 50 foot accuracy for locations not within in HCA or a Class 3 or 4 area	How much mileage do you have this information recorded in your GIS within 5 foot accuracy for locations within in HCA or a Class 3 or 4 area
QUESTION	Yes	No	Yes	No	Miles	Miles
GeoSpatial - Do you have the Lat/Long defined with this format and choices in your present GIS system? (Y or N).						
PipeSegment - Do you have MATERIAL defined in this format and choice options in your present GIS system?						
PipeSegment - Do you have DIAMETER defined in this format in your present GIS system?						
PipeSegment - Do you have WALL_TH defined in this format in your present GIS system?						
PipeSegment - Do you have GRADE defined in this format and choice options in your present GIS system?						
PipeSegment - Do you have PIPE_JOIN defined in this format and choice options in your present GIS system?						
PipeSegment - Do you have SMYS defined in this format in your present GIS system?						

PipeSegment - Do you have SEAM_TYPE defined in this format and choice options in your present GIS system?						
PipeSegment - Do you have CNSTR_YR defined in this format and in your present GIS system?						
PipeSegment - Do you have STATUS_CD defined in this format and choice options in your present GIS system?						
PipeSegment - Do you have ILI_ABLE defined in this format and choice options in your present GIS system?						
InstallationMethod - Do you have INST_METH defined in this format and choice options in your present GIS system?						
CenterlineAccuracy - Do you have QUALITY_CD defined in this format and choice options in your present GIS system?						
MAOP - Do you have MAOP defined in this format in your present GIS system?						
GasClassHCA - Do you have CLASS defined in this format in your present GIS system?						
GasClassHCA - Do you have GAS_HCA defined in this format in your present GIS system?						
SpecialPermit - Do you have SP_PERMIT defined in this format in your present GIS system?						
SpecialPermit - Do you have SP_PERMIT_NO defined in this format in your present GIS system?						
ILI_DA - Do you have ILI_COR defined in this format in your present GIS system?						
ILI_DA - Do you have ILI_DENT defined in this format in your present GIS system?						
ILI_DA - Do you have ILI_CRA defined in this format in your present GIS system?						

ILI_DA - Do you have ILI_OTH defined in this format in your present GIS system?						
ILI_DA - Do you have DA_YR defined in this format in your present GIS system?						
PipeCoating - Do you have COATED defined in this format and choices in your present GIS system?						
PipeCoating - Do you have COAT_TYPE defined in this format and choices in your present GIS system?						
LeakDetectMethod - Do you have LEAK defined in this format and choices in your present GIS system?						
HydroTest - Do you have ORG_HYD defined in this format in your present GIS system?						
HydroTest - Do you have ORG_HYD_PR defined in this format in your present GIS system?						
HydroTest - Do you have LAST_HYD defined in this format in your present GIS system?						
HydroTest - Do you have LAST_HYD_PR defined in this format in your present GIS system?						

Compressor Station - Do you have STATION_ID defined in this format in your present GIS system?		
Compressor Station - Do you have PUMPCOMP defined in this format in your present GIS system?		
Valves - Do you have VALVE_ID defined in this format in your present GIS system?		
Valves - Do you have VALVE_TYPE defined in this format in your present GIS system? If no, move to next tabbed line.		
Valves - Do you have OPER_TYPE defined in this format in your present GIS system?		

Storage - Do you have SF_ID defined in this format in your present GIS system?						
Storage - Do you have STORAGE defined in this format in your present GIS system?						
Storage - Do you have OPER_TYPE defined in this format in your present GIS system?						
Gas Process Plant - Do you have PLANT_ID defined in this format in your present GIS system?						



Appendix C

Total Estimated Costs

Pipeline Category	Centerline Survey Cost	Pipeline Feature List Capture	Pipeline Prep for tool run	MFL IMU Tool Run	LFM IMU Tool Run	Imagery (ortho-rectified with 1 foot pixel	Data Integration	Total Non-piggable per mile costs	
Non-piggable +/- 50'	$1,000	$2,400	N/A	N/A	N/A	$110	$1,000	$4,510	
								Total MFL/IMU per mile costs	Total LFM/IMU per mile costs
Piggable with accurate centerline +/- 5'	$0	$2,400	$1,500	$3,750	$5,070	$110	$500	$8,260	$9,580
Piggable without accurate centerline +/- 5'	$1,000	$2,400	$1,500	$3,750	$5,070	$110	$1,500	$10,260	$11,580

Appendix B

INGAA Survey Results

Titles of Fields listed in PHMSA Federal Register Notice	The color code of the cell indicates the information security controls in place at PHMSA	This cell indicates when the information is expected to be submitted to PHMSA under the present schedule							
Titles of Fields listed in revised PHMSA Federal Register Notice	**SSI Elements, PIMMA Elements and Public Viewer Elements**	**Phase 1 (2018), Phase 2 (2019) and Phase 3 (2020)**	**PHMSA description of requested field and expected values in the Draft NPMS Operators manual**	**PHMSA description of the requested field and expected values in the present PHMSA 30 day Incident Reports (Red indicates a difference)**	**Is the data presently available on operator GIS System**	**Does the data need to be converted annually for the PHMSA submittal?**	**Other Recommended Entry Choices**	**Potential to Increase Number of Submitted Linear Segments to PHMSA**	**Comments**
A. Positional Accuracy (changed from previous 60-day notice)	PHMSA did not specify.	Positional accuracy conforms with new standards	Operator's estimate of the positional accuracy of the submitted data. A=less than 4 feet; B=5-25 feet; C=26-50 feet; D=51-100 feet; E=10-200 feet; F=201-500 feet; U=Unknown		Yes	No		High	Individual segments will improve accuracy over the time period of implementation
B. Pipe Diameter	Diameter	Diameter	Nominal diameter of the pipeline segment, in inches (three decimal places, ##.###).	C 3.a Nominal diameter of pipe (in): / / /./ / / /	Yes (a majority)	No (a majority)		Low	
C. Wall Thickness	Wall thickness	Wall thickness	Nominal wall thickness of the pipeline segment, in inches (three decimal places, #.###).	C 3.b Wall thickness (in): / /./ / / /	Yes (a majority)	No (a majority)	Unknown, Null	High	This attribute will change in complexity over time under the present PHMSA proposed schedule
D. Commodity Detail	Commodity detail	Commodity detail	The primary commodity NG has the following subcategories: NG1=pipeline quality or tariff quality natural gas, NG2=wet but non-sour natural gas, NG3=sour but non-wet natural gas, NG4=wet, sour natural gas.	A9. Gas released: (select only one, based on predominant volume released) Landfill Gas ☐ Other Gas ☐ Name:	☐			Low	
E. Pipe Material	Pipe Material	Pipe material	Identify whether pipe segment is 1=cast iron, 2=plastic, 3=steel, 4=composite, 5=other	C 5. Material involved in Incident: (select only one) ☐ Material other than Carbon Steel or Plastic ☐ Specify: _____	No (a majority)	Yes (a majority)		Low	
F. Pipe Grade	Pipe grade/Pipe grade	Pipe grade	A25, A25P, B, X42, X46, X52,A25, A25P, B, X42, X46, X52, X56, X60, X65, X70, X80, X90, X100, X120, UNKNOWN, PLASTIC PIPE, OTHER	C 3.d Pipe specification: _____	Yes (a majority)	Yes (a majority and complex)	Unknown, Null	High	This attribute will change in complexity over time under the present PHMSA proposed schedule

Titles of Fields listed in revised PHMSA Federal Register Notice	SSI Elements, PIMMA Elements and Public Viewer Elements	Phase 1 (2018), Phase 2 (2019) and Phase 3 (2020)	PHMSA description of requested field and expected values in the Draft NPMS Operators manual	PHMSA description of the requested field and expected values in the present PHMSA 30 day Incident Reports (Red indicates a difference)	Is the data presently available on operator GIS System	Does the data need to be converted annually for the PHMSA submittal?	Other Recommended Entry Choices	Potential to Increase Number of Submitted Linear Segments to PHMSA	Comments
G. Pipe Join Method	Pipe join method	Pipe joining method	Indicate whether pipe joining method is W= welded, C= coupled, S= screwed, F= flanged, P= plastic pipe joint, or O= other	C 3. Item involved in Incident: (select only one) ☐ W affected zone ☐ Other_____ [	No (a majority)	Yes (a majority and complex)		Medium	This attribute will change in complexity over time under the present PHMSA proposed schedule
H. Highest Percent Operating SMYS	Highest percent operating SMYS/Highest percent operating SMYS	Highest percent operating SMYS	Hoop stress corresponding to the maximum operating pressure (MOP) or maximum allowable operating pressure (MAOP) as a percentage of SMYS. Report with up to one decimal place. Example: 75.5 percent SMYS= .755.	C 3.c SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / /,/ / / /	No (a majority)	Yes (a majority and complex)	Unknown, Null	High	This attribute will change in complexity over time under the present PHMSA proposed schedule
I. Maximum Allowable Operating Pressure	MAOP/MAOP	MAOP/MOP	Maximum (Allowable) Operating Pressure in psig (pounds per square inch gauge). Sample value: 1000	E 2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig) : / / /,/ / / /	Yes	No		Low	
J. Seam Type	Seam type	Seam type	SM= Seamless, LERW=Low frequency or direct current electric resistance welded, HERW=High frequency electric resistance welded, DSAW=Double submerged arc weld, SAW=Submerged arc weld, EFW=Electric fusion weld, FLW=Furnace lap weld, FBW=Furnace butt weld, PLAS=Plastic, OTHER=Other	C 3.e Pipe Seam ☐ SAW ☐ Plas Continuous Welded ☐ Butt Welded ☐ DSAW ☐ La [	No (a majority)		Unknown, Null	Medium	This attribute will change in complexity over time under the present PHMSA proposed schedule
K. Year or Decade of Installation	Decade of installation	Decade of installation	Predominant year of original construction or year installed. 90% of the casing on a segment must have been constructed in the year stated	C 4. Year item involved in Incident was installed: / / / /	No (a majority)	No (a majority)	Unknown, Null	Medium	
L. Onshore/Offshore	Onshore/offshore	Onshore/offshore	Whether pipe segment is onshore (Y) or offshore (N) according to operator's records. Must match onshore/offshore designations submitted in operator's Annual Report to PHMSA.	B 1. Was the origin of the Incident onshore? ☐ No (Complete Questions 13-15) [12)				Low	

Titles of Fields listed in revised PHMSA Federal Register Notice	SSI Elements, PIMMA Elements and Public Viewer Elements	Phase 1 (2018), Phase 2 (2019) and Phase 3 (2020)	PHMSA description of requested field and expected values in the Draft NPMS Operators manual	PHMSA description of the requested field and expected values in the present PHMSA 30 day Incident Reports (Red indicates a difference)	Is the data presently available on operator GIS System	Does the data need to be converted annually for the PHMSA submittal?	Other Recommended Entry Choices	Potential to Increase Number of Submitted Linear Segments to PHMSA	Comments
M. Inline Inspection	Inline inspection	Inline inspection	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 for further evaluation of anomalies? Y=Yes, N=No. This attribute concerns only the mainline, not stations. Non-mainline segments should have [null] for this attribute	E 5.d Is the pipeline configured to accommodate internal inspection tools? ☐ Yes ☐No ☐Which physical features limit tool accommodation? (select al that apply)	Yes (a majority)	No (a majority)	Unknown	Medium	
N. Class Location	Class location	Class location	(Gas) Predominant class location for a gas transmission pipe segment (per §192.5)	D 1. Class Location of Incident: (select only one) 2 Location ☐ Class 3 Location ☐Class 4 [	No (a majority)	Yes (a majority)		Low	The segments that will be in particular class location will change over time due to population changes and increased segmentation
O. Gas HCA Segment	Gas HCA segment	Gas HCA segment	(Gas) Pipe segment is in a High Consequence Area (per §192.903)	D 2. Did this Incident occur in a High Consequence Area (HCA)? ☐ 2.a Specify the Method used to identify the HCA: ☐Method 1 ☐Method 2 [	Yes (a majority)	No (a majority)		Medium	The segments that will be in a HCA will change over time due to population changes and increased segmentation
Q. Year of Last ILI									
ILI_COR	Year of last ILI inspection	Inline inspection	Year of last corrosion ILI inspection (use [null] if segment has not had an ILI inspection)	Various G 1 4.a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: ☐ Magnetic Flux Leakage Tool / / / / / ☐Ultrasonic / / / / / ☐Combination Tool / / / / /	No (a majority)	No (a majority)	Null	Medium	This information will change over time
ILI_DENT	Year of last ILI inspection	Inline inspection	Year of last dent ILI inspection (use [null] if segment has not had an ILI inspection)	☐ Geometry / / / / / ☐Caliper / / / / / ☐Combination Tool / / / / /	No (a majority)	No (a majority)	Null	Medium	This information will change over time
ILI_CRA	Year of last ILI inspection	Inline inspection	Year of last crack ILI inspection (use [null] if segment has not had an ILI inspection)	☐ Ultrasonic / / / / / ☐Crack / / / / / ☐Transverse Field/Triaxial / / / / / ☐ Other _____ / / / / /	No (a majority)	No (a majority)	Null	Medium	This information will change over time
ILI_OTH	Year of last ILI inspection	Inline inspection	Year of last other ILI inspection (use [null] if segment has not had an ILI inspection)	☐ Other _____ / / / / /	No (a majority)	No (a majority)	Null	Medium	This information will change over time
R. Coated/Uncoated and Cathodic Protection	Coated/uncoated and cathodic protection	Coated/uncoated and cathodic protection	Identify whether pipe segment is effectively 1=Cathodic Protection coated steel, 2=no CP coated steel, 3=CP bare steel, 4=no CP bare steel, 5=plastic	G1 4. Was the failed item buried under the ground? item considered to be under cathodic protection at the time of the incident? ☐ Yes ☐Year protect [	Yes (a majority)	Yes (a majority)		Low	
S. Type of Coating	Type of coating	Type of coating	Identify whether pipe segment is 1=coal tar enamel, 2=fusion bonded epoxy, 3=asphalt, 4=cold applied tape, 5=polyolefin, 6=extruded polyethylene, 7=field applied epoxy, 8=paint, 9=composite, 10=other, 11=somastic, 12=no coating	C 3.h Pipeline coating type at point of Incident Epoxy Applied Epoxy _____ [☐ ☐	Yes (a majority)	Yes (a majority)	Unknown, Null	Medium	This attribute will change in complexity over time under the present PHMSA proposed schedule
T. FRP Control Number and Sequence Number, if Applicable									

Titles of Fields listed in revised PHMSA Federal Register Notice	SSI Elements, PIMMA Elements and Public Viewer Elements	Phase 1 (2018), Phase 2 (2019) and Phase 3 (2020)	PHMSA description of requested field and expected values in the Draft NPMS Operators manual	PHMSA description of the requested field and expected values in the present PHMSA 30 day Incident Reports (Red indicates a difference)	Is the data presently available on operator GIS System	Does the data need to be converted annually for the PHMSA submittal?	Other Recommended Entry Choices	Potential to Increase Number of Submitted Linear Segments to PHMSA	Comments
U. Year and Pressure of Last and Original Pressure Test									
	Year of original pressure test	Year of original pressure test	Year of original pressure test (use [null] if segment has not had a hydrostatic test). Use "unknown" if operator does not have records on the original pressure test.		No (a majority)	No (a majority)	Unknown	Medium	This information will change over time
	Pressure of original pressure test	Pressure of original pressure test	Pressure of original pressure test in psig, with up to one decimal place (use [null] if segment has not had a pressure test). Use "unknown" if operator does not have records on the original pressure test.		No (a majority)	No (a majority)	Unknown	Medium	This information will change over time
	Year of last pressure test	Year of last pressure test	Year of last hydrostatic test (use [null] if segment has not had a hydrostatic test)		No (a majority)	No (a majority)	Unknown	High	This information will change over time
	Pressure of last pressure test	Pressure of last pressure test	Pressure of last pressure test in psig, with up to one decimal place (use [null] if segment has not had a pressure test)	G1 15 and G5 6. Has one or more hydro test or other pressure test been conducted since original construction at the point of the Incident? Test pressure (psig): / / / / / /	No (a majority)	No (a majority)	Unknown	High	This information will change over time
V. Abandoned Pipelines	Abandoned lines	Abandoned pipelines							
			Identifies the current status of the pipeline segment. I=in service, D=idle, B=abandoned, R=retired.		No (a majority)	No (a majority)		**Low**	**These pipelines are not typically documented within an operator's GIS system**
W. Pump and Compressor Stations									
STATION_ID	Pump and compressor stations	Pump and compressor stations	Assigned by the operator. This is a unique identifier for the station. Dedicated property location (do we want any other attributes? Signify whether pump or compressor?)		No (a majority)	Yes (a majority)		Low	
PUMPCOMP	Pump and compressor stations	Pump and compressor stations	Signifies whether record is a pump (P) or compressor (C) station		No (a majority)	Yes (a majority)		Low	
X. Mainline Block Valves									
				E5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?					
VALVE_ID	Mainline block valves	Mainline block valves	Assigned by the operator. This is a unique identifier for the specific valve.		No (a majority)	No (a majority)		Low	
VALVE_TYPE	Mainline block valves	Mainline block valves	Type of valve: BV= Ball valve, GV= Gate, PV=Plug Valve CV=Check Valve OTHER=Other (e.g., butterfly and globe)	☐ Valve ☐Mainline ☐Specify: ☐Butterfly ☐Check ☐Gate ☐Plug ☐Ball ☐ Globe ☐ Other _____	No (a majority)	Yes (a majority)		Low	
OPER_TYPE	Mainline block valves	Mainline block valves	Type of valve operation: MOV=Manually operated valve, RCV=remotely controlled valve, ASV=Automatic Shutoff valve, CV=Check valve NO= no operator	E5.a Type of upstream valve used to initially isolate release source: ☐ Manual ☐ Automatic ☐Remotely Contr	No (a majority)	Yes (a majority)		Low	
Y. Gas Storage Fields									
	Gas storage fields	Gas storage fields	Assigned by the operator. This is a unique identifier for the specific storage field.		No (a majority)	No (a majority)		Low	
	Gas storage fields	Gas storage fields	Indicate type of field: B=bottles, U=underground caverns (liquid), A=aboveground holders, I=injection wells (for gas)		No (a majority)	No (a majority)		Low	

Appendix C

INGAA Cost Analysis

PHMSA Proposed NPMS with 5 year implementation	2016	2017	2018	2019	2020	2021	2022
Survey for Pipeline Centerline Accuracy	$67,664,571	$67,664,571	$67,664,571	$67,664,571	$67,664,571	$0	$0
Survey Roadway Data to determine crossing and parallel routing	$12,600,000	$12,600,000	$12,600,000	$12,600,000	$12,600,000	$0	$0
Transfer Missing Attributes from other systems to Operator GIS System	$36,000,000	$36,000,000	$36,000,000	$36,000,000	$36,000,000	$0	$0
Resolving Data between Operator and PHMSA Code List	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000
Total	$117,014,571	$117,014,571	$117,014,571	$117,014,571	$117,014,571	$750,000	$750,000
					Total through 7 years		$586,572,857

The second table aligns the information collection process with the 7 year IMP Assessment process resulting in a significant cost savings.

PHMSA Proposed NPMS with 7 year implementation	2016	2017	2018	2019	2020	2021	2022
Survey for Pipeline Centerline Accuracy	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143
Survey Roadway Data to determine crossing and parallel routing	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000
Transfer Missing Attributes from other systems to Operator GIS System	$25,714,286	$25,714,286	$25,714,286	$25,714,286	$25,714,286	$25,714,286	$25,714,286
Resolving Data between Operator and PHMSA Code List	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000
Total	$47,061,429	$47,061,429	$47,061,429	$47,061,429	$47,061,429	$47,061,429	$47,061,429
					Total through 7 years		$329,430,000

The last table is the estimated cost for INGAA members to implement the INGAA counterproposal.

INGAA counterproposal	2016	2017	2018	2019	2020	2021	2022
Survey for Pipeline Centerline Accuracy	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143	$11,597,143
Resolving new Data Entries	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
	$11,697,143	$11,697,143	$11,697,143	$11,697,143	$11,697,143	$11,697,143	$11,697,143
					Total Through 7 years		$81,880,000