



March 15, 2016

Via email <http://www.regulations.gov>

Ms. Carole Cook  
Climate Change Division  
Office of Atmospheric Programs (MC-6207A)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460  
Attention: Docket No. EPA-HQ-OAR-2015-0764

**RE: Comments on EPA Greenhouse Gas Reporting Rule: Leak Detection Methodology Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems**

Dear Ms. Cook:

The Interstate Natural Gas Association of America (INGAA) appreciates the opportunity to submit these comments to the Environmental Protection Agency (EPA) on the proposed revisions to the Greenhouse Gas Reporting Rule: Leak Detection Methodology Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems (Proposed Rule).

INGAA member companies operate in the transmission and storage (T&S) segments of the natural gas sector. Our 24 members represent the vast majority of the interstate natural gas transmission pipeline companies in the United States, operating approximately 200,000 miles of pipelines and serving as a vital link between natural gas producers and consumers.

**SUMMARY OF INGAA COMMENTS**

1. INGAA supports consistency between different regulatory programs in order to reduce redundancies and allow for consistent use of measurement techniques and reporting.
2. This Proposed Rule is premature since it incorporates provisions from EPA's proposed New Source Performance Standard (NSPS) and Subpart OOOOa for methane that have not yet been finalized. EPA should not finalize the revisions to the Subpart W reporting program to align with the NSPS Subpart OOOOa requirements until the final NSPS requirements are published.
3. The revisions to the reporting rule should be made effective no less than 180 days from the publication date of the final rule. Calendar year 2017 should be the earliest time period for which reporting is required using the revised requirements.
4. If EPA incorporates Optical Gas Imaging technology (OGI) as a leak measurement technique for Subpart W reporting purposes, additional methods for leak measurement, such as EPA Method 21, should be allowed. A leak definition concentration of 10,000 ppm also should be used.

5. EPA should not finalize new emission factors (EFs), fugitive leaker or reporting requirements for large leakers (“super emitters”) at this time. Rather, EPA should use the Colorado State University (CSU) study data from Subramanian et al.<sup>1</sup> and Zimmerle et al.,<sup>2</sup> as well as additional current data, to assess the need for updated component-level leaker emission factors for the T&S segments.
6. EPA should incorporate emission reductions from leak repairs into the proposed annual time that components are assumed to be leaking – i.e., the parameter “ $T_{p,z}$ ” in § 98.233(q), Equation W-30.

## DETAILED COMMENTS

### **1. INGAA Supports Consistency Between Different Regulatory Programs.**

In the preamble to the Proposed Rule and the technical support document (TSD) for the proposed regulation, EPA indicates that the Proposed Rule will ensure consistency between the existing Greenhouse Gas Reporting Rule Program codified at 40 CFR Part 98 Subpart W (GHGRP or Subpart W) and the proposed New Source Performance Standards for Oil and Gas Industry codified at 40 CFR Part 60 Subpart OOOOa (NSPS or OOOOa). In particular, the proposed regulation is aimed at aligning the leak survey requirements under the Subpart W program and OOOOa regulation, thereby eliminating the need to perform separate leak surveys when a facility is subject to both regulations.

INGAA supports consistency between different regulatory programs. However, as discussed later in the document, EPA should not finalize revisions to the Subpart W reporting program until the NSPS rule is final. INGAA and many others have commented on concerns with the leak survey provisions in the NSPS and would like to have the opportunity to review the final NSPS rule before these requirements are incorporated in the GHGRP. Alternatively, EPA should provide additional opportunities for comments on the proposed revisions to the GHGRP once the NSPS is finalized later in 2016.

### **2. The Proposed Revisions to the GHGRP are Premature since they Would Incorporate Provisions of a Proposed NSPS that Have not Been Finalized and Contain Requirements that Are Substantially Different than those Under the Current GHGRP.**

INGAA understands EPA’s desire to reconcile requirements under the existing GHGRP and the proposed NSPS. However, this rulemaking is premature since the NSPS OOOOa rule has not been finalized and the provisions in the NSPS OOOOa differ from the current requirements in Subpart W. These differences include the methodologies used to determine if equipment or

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<sup>1</sup> Subramanian, R.; Williams, L.L.; Vaughn, T.L.; Zimmerle, D.; Roscioli, J.R.; Herndon, S.C.; Yacovitch, T.I.; Floerchinger, C.; Tkacik, D.S.; Mitchell, A.L.; Sullivan, M.R.; Dallmann, T.R.; Robinson, A.L. Methane Emissions from Natural Gas Compressor Stations in the Transmission and Storage sector: Measurements and Comparisons with the EPA Greenhouse Gas Reporting Program Protocol. *Environmental Science and Technology*, 49, 3252-3261. 2015.

<sup>2</sup> Zimmerle, D.J.; Williams L.L.; Vaughn, T.L.; Quinn, C.; Subramanian, R.; Duggan, G.P.; Willson, B.; Opsomer, J.D.; Marchese, A.J.; Martinez D.M.; Robinson, A.L. Methane Emissions from the Natural Gas Transmission and Storage System in the United States. *Environmental Science and Technology*, 49, 9374-9383. 2015.

components at a facility are leaking, what constitutes a leak, leak survey frequencies, and reporting requirements.

While EPA provided cross references to the proposed NSPS OOOOa provisions, EPA received 7,000 comments. Based upon the comments and concerns raised, EPA may change some of those proposed provisions in the final rule. In that case, the regulated community and the public would not have had an opportunity to review the full extent of the changes to the GHGRP. INGAA recommends that EPA consider revisions to the GHGRP rule after EPA has finalized the NSPS OOOOa. That would provide the opportunity for companies to review the leak measurement program in the final NSPS OOOOa rule before evaluating its implications for GHG emissions reporting purposes.

### **3. The NSPS Should Provide Companies the Flexibility to Use a Variety of Leak Measurement Techniques, Including the Use of Method 21.**

INGAA is especially concerned with EPA's proposed leak detection methodology in Subpart OOOOa of the recently noticed NSPS. INGAA (and others) provided substantial comments on the leak survey provisions in the proposed OOOOa rule, including the use of Method 21. The leak detection methodology in the Subpart OOOOa final rule may differ from the OOOOa proposed rule, which is referenced in this Proposed Rule.

The final NSPS should provide companies the flexibility to use a variety of leak measurement techniques, including the use of Method 21, to verify that a leak is above a certain threshold (i.e., 10,000 ppm). This is the current methodology under Subpart W of the GHGRP and has proven efficient and effective at identifying leaks. The detection level of OGI may be far below 10,000 ppm, leading to the identification of many very small leaks that detract from targeting environmentally significant leaks. In addition, the proposed NSPS OOOOa leak definition criteria differ from Subpart W, and this would essentially integrate a new, and conflicting, leak definition into Subpart W. Thus, results for different facilities and for different years would not be directly comparable. INGAA encourages EPA to finalize the NSPS with the additional flexibility sought with respect to the leak survey options and the leak definition. EPA and stakeholders would then have the opportunity to assess the benefits of aligning the two programs once the NSPS is finalized.

In addition, INGAA and others submitted comments regarding the proposed NSPS survey requirements; these survey requirements should not be integrated into Subpart W even if those requirements are retained in the final NSPS rule. For example, the proposed NSPS requires affected facilities to develop a corporate-wide fugitive emissions monitoring plan that describes how the leak survey will be conducted, including the site map and "walking path" of the survey team. As noted in INGAA's comments on the NSPS proposed rule, details required in the corporate monitoring plan are ambiguous, unnecessary and overly burdensome with little or no environmental benefit. The proposed requirements add unnecessary paperwork, which is inconsistent with the Paperwork Reduction Act. Similarly, INGAA opposes adding similar provisions to the GHGRP.

The current leak survey requirements in the Subpart W reporting rule provides the survey team the flexibility to ensure that all the components are surveyed in an efficient manner without including unnecessarily prescriptive requirements such as a defined walking path. INGAA has

requested that EPA not retain these monitoring plan criteria in the NSPS OOOOa final rule. If included in the final NSPS, such onerous requirements should not be required for Subpart W surveys. In addition, there may be challenges to the final NSPS rule if such provisions are retained, and that reconciliation process could take considerable time. Subpart W should not be burdened with such requirements.

#### **4. EPA Should Provide Sufficient Time for Companies to Plan for and Implement Changes in the Proposed Rule for Reporting Purposes.**

In the preamble to the GHGRP Proposed Rule, EPA indicates that the timing for the applicability of the provisions in the proposed rule, especially the requirement to perform leak surveys and use EFs in the proposal, would depend on when the rule is finalized and if the leak survey has been completed. The proposal requires that leak surveys completed after the final Subpart W rule revisions follow the new requirements. Additionally, reporting for calendar year 2017 emissions will be required to follow the provisions in the final revision. The ability of companies to meet the requirements as described in the proposed revision would depend on the timing for the final revisions to the reporting rule, planned survey schedules, and EPA's progress in updating its GHGRP reporting system (i.e., e-GGRT updates). EPA will need to update e-GGRT, allow for beta testing of the system, allow sufficient time for the regulated community to train on the updated reporting system, and permit sufficient implementation time prior to the annual report due dates.

If the proposal is finalized in late 2016, companies may not have sufficient time to make changes necessary to meet the March 31, 2017 deadline for reporting calendar year 2016 emissions. INGAA requests that the final revisions to the reporting rule become effective no sooner than 180 days from the date of the final rule. Additionally, the requirements of this final rule should not be applicable to reporting for 2016 emissions. Therefore, unless the operator chooses to use a Subpart OOOOa survey that is completed in 2016, INGAA recommends that EPA implement the new OOOOa reporting requirements effective on January 1, 2017 covering the 2017 GHGRP reporting period.

#### **5. EPA Should Define the Leak Threshold at 10,000 PPM.**

The proposed NSPS requires OGI to detect leaks. Under the proposed § 98.234(a)(6)(i), a leak is defined as "any fugitive emission from a fugitive emissions component, as defined in 40 CFR part 60, Subpart OOOOa, that is detected by the optical gas imaging instrument." It is not appropriate that any fugitive emission detected be considered a leak for reporting rule purposes. As discussed above, this would result in inconsistencies in the leak definition for different facilities subject to Subpart W. While EPA is striving to reconcile differences across rules, this would introduce an inconsistency within Subpart W.

As discussed earlier, INGAA requests that the NSPS and the Subpart W reporting rule provide flexibility with leak survey methodologies. INGAA recommends that the final GHG reporting rule permits companies the option of using Method 21 for verifying that leaks are above 10,000 ppm, which is currently allowed under the Subpart W program. Additionally, the leak definition concentration should be maintained at 10,000 ppm. As discussed in INGAA's comments on the

NSPS Proposed Rule,<sup>3</sup> a lower leak concentration may be appropriate for other programs such as a volatile organic compounds (VOC) mitigation program. In those cases, the process streams may be more diluted (i.e., include significant amounts of non-hydrocarbon components) which results in lower concentration measurements using Method 21, and the regulated pollutant is VOC. Natural gas is more than ninety percent methane, and a leak definition concentration of 10,000 ppm is more appropriate to ensure that very small leaks, which have no significant environmental impact, are not classified as leaks for reporting purposes.

## **6. EPA Should Commit to Timely Review of Leaker Emission Factors Based on New Data as it Becomes Available.**

EPA is proposing to update the EFs for the Onshore Natural Gas Transmission Compression and Underground Natural Gas Storage industry sectors, as well as other segments. EPA's stated purpose in updating EFs is to facilitate the use of leak survey results for Subpart W equipment leak estimates. EPA is proposing to add the following new emission factor categories:

- Gathering and boosting segment,
- Lowered non-compressor meter and pump EFs for Processing segment,
- Added a flange EF and an "other" EF for T&S segments,
- Added leaker EFs for storage wellheads, and
- Added leaker EFs for gas service part of LNG facility.

These new and updated emission factors proposed by EPA are primarily based on older data such as the seminal EPA/GRI data sets. The EPA/GRI data sets are based on studies conducted in the 1990s. More recent studies are adding new data. An EPA memo<sup>4</sup> in the docket briefly discusses the available new data results. INGAA understands that EPA has elected to rely on larger datasets from 1990s and 2000s studies that primarily relied on Method 21 (and high volume samplers) to identify and measure leaks. Additional component-level data on leaks is limited, but more recent studies continue to add relevant data. For example, for the T&S sectors, new data exist that should be more closely evaluated and relevant for updating the Subpart W emission factors. In 2015, Subramanian et al. published findings from direct measurements of T&S station emissions<sup>5</sup> and Zimmerle et al.<sup>6</sup> used measurement data from the Subramanian et al. study, additional data provided by industry, and certain GHGRP data to evaluate T&S fugitive emissions. Similar data exists for other segments. Some of these results indicate that leak emissions are lower than in the past, which has implications for Subpart W estimates that rely on older data.

INGAA recommends that EPA commit to a concerted effort to compile and analyze available data on component-level equipment leaks, assess whether data from different sources can be combined into a single larger dataset, and develop emission factors based on the best available data. By delaying the proposed revision to Subpart W until after the NSPS OOOOa is finalized,

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<sup>3</sup> Docket ID No. EPA-HQ-OAR-2010-0505 – "Oil and Natural Gas Sector: Emission Standards for New and Modified Sources," dated September 18, 2015 (80 FR 56593)

<sup>4</sup> Docket ID No. EPA-HQ-OAR-2015-0764-0028. EPA Memorandum, "Greenhouse Gas Reporting Rule: Technical Support for Leak Detection Methodology Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems." January 21, 2016.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

EPA would have additional time to conduct a worthwhile investigation. Stakeholders should be involved in this process. If EPA proceeds with this rulemaking, the proposed EFs may be a viable interim solution. This, however, would not negate the need to complete a comprehensive data review and assess the need for updated component-level leaker EFs for Subpart W.

In addition, EPA is proposing that the regulated community use the proposed leaker emission factors and the number of actual leaks identified in Subpart OOOOa in leak detection and repair programs to determine Subpart W equipment leak emissions. Operators have the option to use this approach if a leak survey is conducted for other purposes, such as a voluntary leak mitigation program. In some cases, those surveys may include leak measurement (e.g., using a high volume sampler or calibrated bag). EPA should provide reporters the ability to use actual leak measurement data, if measurements are taken, as an alternative to using the proposed leaker emission factors. This data would continue to add to the dataset that could be used to update component-level leaker emission factors.

## **7. EPA Should Not Incorporate Leak Emission Factors for “Super Emitters” for Subpart W Reporting Purposes.**

EPA requested comments on appropriate ways to incorporate emissions from significantly higher leaking emission sources, also called “super emitters.” Detailed recommendations are not provided at this time, but an industry project being conducted by the Pipeline Research Council International (PRCI) will likely provide relevant information in 2016.

In a separate action, EPA is considering updates to equipment and facility-level EFs used for the annual EPA National GHG Inventory (GHGI). INGAA submitted comments on the GHGI in February 2016. Those comments discuss a study being completed by PRCI that is compiling and analyzing Subpart W measurement data since the 2011 program inception. That review includes measurement from relatively large leaks, and a report will be available later this year that discusses the implications of those leaks and how they can be accounted for in emission factors. In addition, previous studies such as the EPA/GRI study integrated large leaks into emission factors. That same approach may be reasonable for updated equipment-level EFs developed based on Subpart W measurements. For example, Subpart W measurements at compressor stations that measure a large leak from an isolation valve would be integrated into the operator-specific emission factor that is used for company calculations. For the key sources most likely to result in larger leaks, Subpart W already requires measurement (i.e., compressor sources, leaking storage tank dump valves). Thus, the “super emitter” issue for key sources is already addressed within Subpart W methodologies.

EPA should not implement any new procedures in this rulemaking. If new methods are to be added to Subpart W, a proposed rule should delineate specifically the methodologies and provide the opportunity for comment. Further, for extraordinarily rare and anomalous events, such as the recent incident in California, EPA may want to consider adding a “case-specific” method to ensure there is not a data gap in Subpart W reporting. That methodology too should be addressed in a separate rulemaking.

**8. EPA Should Incorporate Emission Reductions from Leak Repairs into the Proposed Average Time that Components are Assumed to Be Leaking.**

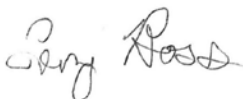
EPA is proposing a new time factor, parameter “ $T_{p,z}$ ” in Equation W-30, for determining the time an individual component was assumed to be leaking. If a component was identified as leaking in one survey during any calendar year, EPA’s proposed methodology assumes the component is leaking for the entire year. If a component was identified in multiple surveys during any year, EPA’s proposed methodology assumes the component is leaking from the beginning of the calendar year through the period between the first and last surveys. If the component also was found leaking during the last survey, then EPA’s proposed methodology assumes it would be leaking for the duration of that calendar year. EPA’s assumption is that the leak was not repaired at any time during the calendar year. INGAA does not agree. Subpart W should include leak repair verification criteria that are consistent with Subpart OOOOa.

If a component was repaired at any time during the calendar year, especially if required for a source subject to Subpart OOOOa, then the component should be assumed to not be leaking until a subsequent survey identifies that the component is again leaking. Subpart OOOOa includes procedures to verify a leak has been repaired. Once leak repair is verified, it is inappropriate to assume that the component is leaking under Subpart W, and this would introduce an inconsistency between the two rules. The time assumption in the emission estimate, “ $T_{p,z}$ ,” should base the time that the leak ended on repair records required for the NSPS.

INGAA agrees with EPA’s proposal that the time a component is assumed to be leaking should not include periods when the component was not operational (not under pressure).

INGAA appreciates the opportunity to comment on the proposed revisions to the Greenhouse Gas Reporting Rule for Leak Detection Methodology. If you have any questions or wish to discuss these comments further, please contact Terry Boss, Senior Vice President, Safety and Environment, INGAA at [tboss@ingaa.org](mailto:tboss@ingaa.org) or 202-216-5930.

Sincerely,



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