

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

TABLE OF CONTENTS

Topics

1. **Concern of Potential Gap in Best Available Monitoring Method (BAMM) Coverage (API and others)**
2. **Concern that Decision to Extend BAMM is not Based on Any Rational Information in the Rulemaking Docket**
3. **Concern that Extending BAMM Threatens to Undermine Quality of Data**
4. **Use of BAMM beyond 2011**
5. **Emission Sources Covered by BAMM**
6. **Use of BAMM for special circumstances**
7. **Other comments reviewed**

Topic 1: Concern of Potential Gap in BAMM Coverage

Comment Number: EPA-HQ-OAR-2011-0417-0012-001

Organization: American Petroleum Institute

Commenter: Karin Ritter

Comment Excerpt Text:

API looks forward to continuing the on-going efforts with EPA to streamline the implementation of the Mandatory Greenhouse Gas Reporting Program (GHGRP), and welcomes EPA's attention to the issues raised in the Petition for Reconsideration (filed on January 31, 2011) and the letter to EPA's Bill Irving (April 1, 2011). EPA issued a proposed rule on June 27, 2011 (76 FR 37300) that, if finalized, would further revise BAMM provisions referenced in this letter to provide additional flexibility in the use of BAMM for all Subpart W emission sources.

API and its members strongly support the revisions to the BAMM provisions for Subpart W, and concur with the proposed action to automatically extend the applicability of BAMM for Subpart W sources to December 31, 2011. However, there seems to be a potential gap in coverage. According to the current Subpart W, companies are required to submit BAMM requests by July 31 in order to have BAMM for §98.234 f(2) and f(3) available beyond September 30, 2011, to use BAMM for sources in paragraph f(4) through 2011, or to use BAMM for sources not listed in paragraphs f(2), f(3), and f(4). Due to the fact that the proposed rule--the subject of these comments--was published in the FR on June 27, 2011, it appears unlikely that it can be finalized prior to July 31, 2011, and formally render this requirement moot. This is a source of large uncertainty especially as it pertains to all subsection §98.234(f)(5) sources.

In accordance with guidance provided by EPA in the "Additional Frequently Asked Questions (July 2011)" document, API and its members understand that if this situation is unresolved at the time of the July 31, 2011 deadline, reporters who anticipate the potential need to use BAMM through December 31, 2011 should submit to EPA a written notice of intent (NOI), as specified in §98.234(f)(1). Furthermore, such an

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

NOI will be construed to meet the regulatory requirements, and allow reporters to submit further NOI's and complete BMM extension applications in accordance with the yet to be promulgated final rule.

Response: EPA thanks the commenter for their comment.

In response to the comment on reconsideration issues, the amendments finalized in this action are in part in response to petitions submitted for reconsideration on specific issues related to best available monitoring methods. EPA is considering addressing in a separate rulemaking any additional items raised in petitions for reconsideration not related to BMM.

Consistent with the guidance given by EPA in the "Subpart W: Best Available Monitoring Methods" fact sheet dated August 2011, EPA published a proposed rule on June 27, 2011 that sought comment on allowing automatic use of BMM for the entire 2011 reporting year for all emissions sources covered under subpart W without seeking approval from EPA (76 FR 37300). The public comment period for that proposed rule closed on July 27, 2011. Given the timing necessary to consider public comment and finalize the rule, EPA was not able to promulgate a final rule by July 31, 2011, and July 31, 2011 was the deadline for owners or operators to submit BMM requests to EPA for use of BMM in 2011. As noted before, 40 CFR 98.234(f)(1) indicates that "If the reporter anticipates the potential need for best available monitoring for sources for which they need to petition EPA and the situation is unresolved at the time of the deadline, reporters should submit written notice of this potential situation to EPA by the specified deadline for requests to be considered." As of July 31, 2011, the circumstances surrounding the applicability of the deadline were "unresolved" and owners or operators who submitted a notification of intent would have satisfied the rule requirements.

However, based on this final action, owners and operators of facilities subject to the requirements of subpart W would not need to submit a BMM request to EPA for approval before using BMM during any time period in 2011. Therefore, there is no gap in BMM coverage. For owners and operators of facilities that need to use BMM beyond 2011, they must submit a notice of intent to apply for BMM by December 31, 2011, and follow that up with a BMM request consistent with 40 CFR 98.234(f)(8) by March 31, 2012. All other requests for BMM coverage beyond 2012 must be submitted by September 30th of the preceding year for which BMM coverage is being sought.

Comment Number: EPA-HQ-OAR-2011-0417-0014-002

Organization: Gas Processors Association (GPA)

Commenter: Jeff Applekamp

Comment Excerpt Text:

GPA is also concerned about a potential gap in BMM coverage. Currently, Subpart W requires companies to submit BMM requests by July 31, 2011 in order to have BMM for §98.234 f(2) and f(3) available beyond September 30, 2011, to use BMM for sources in paragraph f(4) through 2011, or to use BMM for sources not listed in paragraphs f(2), f(3), and f(4). Due to the fact that this Proposed Rule was not issued a direct final rule and may be subject to additional comments, it appears

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

unlikely that it can be finalized prior to July 31, 2011, which would render this requirement moot. This is a source of large uncertainty especially as it pertains to all subsection §98.234(f)(5) sources. As GPA and its members understand, EPA has provided guidance in the "Additional Frequently Asked Questions (July 2011)" document, that suggests that if this situation is unresolved at the time of the July 31, 2011 deadline, reporters who anticipate the potential need to use BMM through December 31, 2011 should submit to EPA a written notice of intent (NOI), as specified in §98.234(f)(1). GPA has informed members that this situation certainly will occur and it is unfortunate that companies will be subject to this unnecessary burden.

Response: For a response to this comment, please see the response to EPA-HQ-OAR-2011-0417-0012-001.

Comment Number: EPA-HQ-OAR-2011-0417-0009-003

Organization: Anadarko

Commenter: William W. (Bill) Grygar II

Comment Excerpt Text:

Anadarko is also concerned with the potential gap in BMM coverage. Currently, Subpart W requires applicable owners and operators to submit BMM requests by July 31, 2011 in order to obtain BMM through the end of 2011 for those emission sources referenced in §98.234 (f)(2)-(5). Without this request, emissions sources referenced in §98.234 (f)(2)-(3) are automatically covered by BMM only until September 30, 2011, and emission sources referenced in §98.234 (f)(4)-(5) are not covered by BMM. Due to the fact that this Proposed Rule was not issued a direct final rule and may be subject to additional comments, Anadarko has significant concern about the data elements encompassed under §98.234 (f)(5) for which actual data may not be available, thereby presenting a compliance concern. Anadarko has reviewed EPA's guidance in the "Additional Frequently Asked Questions (July 2011)" document, that suggests that if this situation is unresolved at the time of the July 31, 2011 deadline, reporters who anticipate the potential need to use BMM through December 31, 2011 should submit to EPA a written notice of intent (NOI), as specified in §98.234(f)(1). Anadarko is accordingly submitting NOIs per GPA's guidance.

Anadarko supports this Proposed Rule and further select comments made by industry groups API, AXPC, and GPA, of which Anadarko is a member.

Response: For a response to this comment, please see the response to EPA-HQ-OAR-2011-0417-0012-001.

Topic 2: Concern that Decision to Extend BMM is not Based on Any Rational Information in the Rulemaking Docket

Comment Number: EPA-HQ-OAR-2011-0417-0013-003

Organization: Environmental Defense Fund

Commenter: Peter Zalzal

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Comment Excerpt Text:

EPA's BMM Extension Proposal alludes to concerns companies expressed regarding the compliance deadlines for BMM utilization. Specifically, the Agency references letters from Chesapeake Energy, the American Exploration and Production Council, and the American Petroleum Institute ("API"), along with meetings where "several companies requested an extension of the BMM provisions in order to complete initial equipment inventories and to secure internal resources to report data to EPA in accordance with the rule requirements." 76 Fed. Reg. at 37,303.

On July 22, just 5 days before the close of the comment period, EPA included six petitions for reconsideration in the reconsideration docket for Subpart W and a May 3 letter from API in the docket for this rulemaking. The May 3 API Letter explicitly requests an extension to use automatic BMM based on scope and breadth of analysis Subpart W requires, identifying the total number of sites and facilities covered by the rule and the geographic distribution of covered facilities generally. EPA Doc. No. EPAHQ-OAR-2011-0417-0002 (May 3 API Letter). Neither the letter nor any other information in the rulemaking docket, however, provide data concerning compliance challenges for specific reporters or an empirical justification for why a three month automatic deferral is reasonable to alleviate these concerns. Similarly, the docket contains no information supporting a relaxation of the BMM provisions beyond 2011. Cf. May 3 API Letter 4-8 (identifying safety and technical concerns but failing to identify other "unique or unusual" circumstances that justify a relaxation of the post-2011 BMM provisions). Absent meaningful decision criteria and without a factual basis in the record, the BMM Extension Proposal lacks a rational basis. See *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Motor Vehicle Mfrs. Ass'n v. EPA*, 768 F.2d 385, 397 (D.C. Cir. 1985).

Response: EPA disagrees that the provisions finalized in this rulemaking are without a factual basis and that they lack a rational basis. Please see section II.C of the preamble for the final rule amendments for a response to this comment.

Comment Number: EPA-HQ-OAR-2011-0417-0008-003

Organization: Sierra Club

Commenter: Joanne Spalding

Comment Excerpt Text:

Given Congress's direction to EPA to publish and "begin implementation" of greenhouse gas reporting "in all sectors of the economy of the United States" "not later than June 26, 2009," Appropriations Act of 2009, Pub.L. No. 111-8, 124 Stat 524, 729 (Mar. 11, 2009), EPA must carefully justify any decision to defer high quality data reporting. EPA's thin record for this rulemaking, which does not include any technical documentation of the need for BMM past any specific date, nor any analysis of the extent to which data quality will suffer, provides little support for EPA's actions. To support its proposal, EPA instead largely cites three industry letters – a petition for reconsideration from the American Petroleum Institute (API), a similar petition from Chesapeake Energy Corporation and American Exploration and Production Council, and an informal comment letter from API.

These letters do not provide any empirical data supporting EPA's proposal. They certainly do not support EPA's proposed extension of BMM past 2011, or even 2012, contained in proposed 40 C.F.R. § 98.234(f)(8)(iii), which invites post-June 30, 2012 BMM applications. The API petition does not offer

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

any detailed analysis of industry needs, and simply requests a deadline extension through 2011, and that EPA "state it will consider BMM requests for such time as there is a reasonable need for use of BMM." API Petition at 4-5. The Chesapeake petition likewise only requests BMM "for the entire first reporting year 2011." Chesapeake Petition at 8. The later API letter, which EPA quotes uncritically in its proposal, likewise offers no detailed industry survey showing that post-2011 BMM is necessary, instead offering anecdotal descriptions of compliance challenges but without demonstrating that these challenges cannot be addressed in 2011, or, at the latest, in 2012. *See generally* API Letter of May 3, 2011. Even that letter focuses only on making BMM "more widely available through 2012," and does not request any further extensions past that year. *See id.* at 2. Thus, even the industry letters which EPA cites accept that BMM ought to be available only for the limited time in which compliance difficulties remain.

This limited record does not justify EPA's broader proposal to continue accepting BMM requests after June 2012, or indeed, even after December 2011. EPA has not shown that its proposal will not seriously impair data quality, especially as the BMM requests it contemplates will cover some of the most poorly-known, and most important, emissions sources. Nor has it shown that its proposed BMM extension rationally relates to the anecdotal compliance difficulties that the industry letters complain of. Nor has it calculated what costs, if any, an extended BMM deadline avoids, nor determined when those costs no longer justify allowing industry to avoid fully complying with Subpart W. EPA also has not shown that these costs are real by, for instance, inquiring into how many operators would be unable to comply with Subpart W by any given date. If EPA moves forward, it must justify its proposal on such a substantial record, not on industry anecdotes.

Response: Please see section II.C of the preamble for the final rule amendments for a response to this comment, and section III of the preamble for background on the economic impacts of this final rule.

Comment Number: EPA-HQ-OAR-2011-0417-0008-004

Organization: Sierra Club

Commenter: Joanne Spalding

Comment Excerpt Text:

That said, we understand that industry groups have raised concerns that fully implementing Subpart W may take time to do efficiently and safely. Nevertheless, the public interest in accurate, comprehensive greenhouse gas emissions data from this critical industry warrants ending the use of such approximations quickly. EPA should therefore set firm deadlines to ensure that industry comes into compliance as rapidly as it safely can. In view of these challenges, we recommend that EPA do the following:

First, EPA should not finalize any deadline extension unless it can do so on the basis of a complete technical analysis showing the need for the extension, the impact of that extension on the rule's data quality, and that the extension is warranted despite these costs.

Second, as not even the industry has requested BMM after 2012, nor demonstrated any need for such measures, EPA should either strike its proposed 40 C.F.R. § 98.234(f)(8)(iii), thus establishing an end to

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

BAMM of June 30, 2012, or modify that provision to allow for deadline extensions only through December 31, 2012 and no further. Either course would allow industry to spend much of 2012 upgrading any remaining facilities, while maintaining a hard deadline for full compliance.

Third, EPA should restore its "extreme circumstances" standard for consideration of BAMM applications.

Response: EPA thanks the commenter for their submission. In regard to the first argument about EPA conducting and producing a technical analysis supporting the extensions to the related BAMM dates, please see section II.C of the preamble for the final rule amendments for a response to this comment.

Regarding the second argument on ending BAMM no later than December 31, 2012, and on the assertion that industry did not request BAMM beyond 2012, please see section II.C of the preamble for the final rule amendments for a response to this comment.

For the third argument that EPA should restore the original language of "extreme circumstances" instead of "unique or unusual" for BAMM beyond 2011, EPA disagrees with the commenters' suggestion, please see section II.C of the preamble for the final rule amendments for a response to this comment.

Topic 3: Concern that Extending BAMM Threatens to Undermine Quality of Data

Comment Number: EPA-HQ-OAR-2011-0417-0013-001

Organization: Environmental Defense Fund

Commenter: Peter Zalzal

Comment Excerpt Text:

We support the Agency's efforts to implement a robust reporting program and share EPA's interest in collecting accurate, reliable data. EDF is deeply concerned, however, that the Agency's proposal to extend the availability of Best Available Monitoring Methods ("BAMM") for Subpart W sources will result in less reliable data from this important source of greenhouse gas emissions.

We incorporate by reference, as part of the administrative record for this rulemaking proceeding, all documents and studies we cite, including our joint comments on the repropoed Subpart W, EPA Doc. No. EPA-HQ-OAR-2009-0923-1155 ("Subpart W Comments").

THE CLEAN AIR ACT UNDERSCORES THE IMPORTANCE THAT SUBPART W PRODUCE HIGH-QUALITY DATA

EPA has frequently recognized the importance that the Mandatory Reporting Rule produce robust, high-quality data. See, e.g., 74 Fed. Reg. 56,260, 56,265 (Oct. 30, 2009) ("Accurate and timely information on GHG emissions is essential for informing many future climate change policy decisions. Although additional data collection (e.g., for other source categories or to support additional policy or program needs) will no doubt be required as the development of climate policies evolves, the data collected in this rule will provide useful information for a variety of polices.").

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Inherent in the Administrator's broad-based authority to collect data under section 114 of the Act is the presumption that any collected data are reliable. Indeed, the law anticipates such a result. Cf. NRDC v. EPA, 529 F.3d 1077, 1085 (D.C. Cir. 2008) (disagreeing with claims that data EPA collected under section 114 were unreliable).

HIGH-QUALITY DATA IS ESPECIALLY CRITICAL FOR SUBPART W SOURCES AND MEASUREMENT METHODOLOGIES EXIST TO PRODUCE SUCH DATA

Accurate emissions data are especially important for Subpart W sources because of the predicted rate of expansion for oil and gas development and the high degree of variability associated with these emissions. The Energy Information Administration predicts that shale gas production will "increase strongly through 2035 in the AEO2011 Reference case, growing almost fourfold from 2009 to 2035." ENERGY INFORMATION ADMINISTRATION, ANNUAL ENERGY OUTLOOK 2011 2 (Apr. 2011). Indeed, according to the latest EPA greenhouse gas inventory, oil and gas activities are already the largest source of U.S. methane emissions, which is an extremely potent greenhouse gas with a warming potential 25 times that of carbon dioxide over 100 years and 72 times over 20 years.

Moreover, EPA has itself recognized the problem of emissions underreporting in the oil and gas sector. In its own Technical Support Document (TSD) for the proposed Mandatory Reporting Rule, EPA concludes that several emissions sources are "significantly underestimated" in the 1996 U.S. GHG Inventory, specifically identifying concerns with: (1) well venting for liquids unloading; (2) gas well venting during well completions; (3) gas well venting during well workovers; (4) crude oil and condensate storage tanks; (5) centrifugal compressor wet seal degassing venting; and (6) flaring.¹

According to EPA, the emissions estimates for these sources "do not correctly reflect the operational practices of today" and, in fact, EPA believes "that emissions from some sources may be much higher than currently reported in the U.S. GHG Inventory."² As a result, in the TSD, EPA includes revised emission factors for four of these underestimated sources leading to revised emissions estimates ranging from ten times higher (for well venting from liquids unloading) to 35 times higher (from gas well venting from conventional well completions) to as much as 3,500 and 8,800 times higher (for gas well venting from completions and well workovers of unconventional wells, respectively).³

These factual circumstances create an imperative for accurate measurements from the oil and gas sector, and evidence exists suggesting such measurements are achievable. Indeed, the City of Fort Worth recently completed a year-long assessment of natural gas emissions at 400 well sites across the city relying on direct measurement techniques.⁴

EXTENDING BAMM FOR SUBPART W SOURCES THREATENS TO UNDERMINE THE QUALITY OF DATA FROM SUBPART W

In the Final Subpart W Rule, EPA identified procedures facilities could use while coming into full compliance with the Rule. EPA defined these Best Available Monitoring Methods ("BAMM") as: "monitoring methods currently used by the facility that do not meet the specifications of a relevant subpart; supplier data; engineering calculations; or other company records." 75 Fed. Reg. at 74,471.

The Agency has now proposed to relax provisions regarding facilities use of BAMM in essentially three ways, each of which will allow for expanded use of these less reliable methodologies in calendar year 2011 and beyond. See Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems:

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Revisions to Best Available Monitoring Method Provisions 76 Fed. Reg. 37,300 (June 27, 2011) ("BAMM Extension Proposal"). First, EPA has proposed to extend facilities' ability to automatically use BAMM for the remainder of calendar year 2011. Second, EPA has proposed to expand the availability of automatic BAMM in calendar year 2011 to encompass sources listed in 98.234(f)(4) (Leak Detection and Measurement) and 98.234(f)(5)(iv) (all other sources not previously listed). 40 CFR 98.234(f)(4), 98.234(f)(5)(iv).

Finally, EPA's BAMM Extension Proposal relaxes the requirements for facilities to utilize BAMM beyond 2011. Compare 75 Fed. Reg. at 74,471 (Nov. 30, 2010) ("EPA does not anticipate extending the use of best available monitoring methods beyond 2011 as approximately fourteen months will have passed since the Administrator's signature; however, under extreme and unique circumstances, which include safety, or a requirement being technically infeasible or counter to other local, State or Federal regulations, EPA may consider granting a further extension.") with 76 Fed. Reg. at 37,304 (owners may apply for BAMM beyond 2011 based on "unique or unusual circumstances such as data collection methods that do not meet safety, technical, or legal issues rendering them unable to meet the requirements of subpart W") (emphasis added). The Agency's proposal to replace "extreme" with "unusual" and to add the qualifier "such as," expands the number of facilities that may seek BAMM in the future and opens the possibility that such requests are not limited to safety, technical, or legal concerns.

These changes threaten to transform BAMM from a limited, transitional program meant to serve as a bridge to full compliance into a permanent fixture of the Subpart W reporting program. While the Agency carefully selected reporting methodologies under Subpart W, the same cannot be said for the vast, non-standardized set of techniques facilities can employ as BAMM. See *supra* at 3.

¹ See EPA Technical Support Document at p.7.

² EPA Technical Support Document at p.23.

³ See EPA Technical Support Document, Table 1, at p.8 and Appendix B; see also Subpart W Comments at 5-9.

⁴ See City of Fort Worth, Natural Gas Air Quality Study (July 13, 2011), available at http://www.fortworthgov.org/uploadedFiles/Gas_Wells/AirQualityStudy_final.pdf.

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Response:

In response to the first argument about extending facility's abilities to use BAMM automatically in 2011 please see section II.C of the preamble for the final rule amendments for a response to this comment.

In response to the second argument about the expansion of the type of emissions sources covered under automatic BAMM for 2011, please see section II.C of the preamble for the final rule amendments for a response to this comment.

In response to the third argument about relaxing the criteria for use of BAMM beyond 2011, please see section II.C of the preamble for the final rule amendments for a response to this comment.

Finally, in response to the last argument that the amendments in today's action would undermine the subpart W reporting program through the collection of non-standardized techniques, please see section II.C of the preamble for the final rule amendments for a response to this comment.

Comment Number: EPA-HQ-OAR-2011-0417-0013-002

Organization: Environmental Defense Fund

Commenter: Peter Zalzal

Comment Excerpt Text:

To promote collection of the high-quality data that the Clean Air Act contemplates, EDF strongly encourages the Agency:

- 1) Not to extend the availability of automatic BAMM to sources categorized under 98.234(f)(4), Leak Detection and Measurement, and, likewise, not to make BAMM available for these sources post-2011. Accurate information on leaking equipment lies at the core of Subpart W and allowing BAMM for these measurements would undermine the utility of these data and obscure opportunities for facilities to both reduce emissions and save money.
- 2) To restore the language from the Final Subpart W Rule regarding BAMM post-2011. Because of the importance of reliable data, EPA should only permit alternative methods where facilities experience real, exigent circumstances. If EPA chooses to reopen the language regarding post-2011 BAMM, EDF encourages the Agency develop and implement clear, rigorous criteria for granting BAMM requests and that any such grants be expressly time-limited. Below, EDF has included proposed language addressing BAMM beyond 2011:

Requests for extension of the use of best available monitoring methods beyond 2011 for sources listed in paragraphs (f)(2), (f)(3), and (f)(5)(iv) of this section. To obtain approval to use BAMM after December 31, 2011, the owner or operator must submit a request demonstrating to the Administrator's satisfaction that the owner or operator has extraordinary and unique circumstances based on clearly-

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

demonstrated safety concerns or technical infeasibility, the reasons the reporter cannot otherwise address the safety concerns or technical infeasibility, and the length of time requested for using BAMM (less than one year). After December 31, 2011, any BAMM extension will be valid for a maximum of one year. The use of BAMM after December 31, 2012 must be based on a new request and will be denied unless due to extreme circumstances based on demonstrated safety concerns.

- 3) To clearly identify facilities that have requested BAMM, including the data from those facilities that are BAMM and the methods facilities have used to obtain those data. To promote transparency, EDF encourages EPA to include this information on its website, along with its public disclosure of the Subpart W data.

Response: Regarding the first suggestion by the commenter to withholding the extension of automatic BAMM to sources categorized under 40 CFR 98.345(f)(4) , please see section II.C of the preamble for the final rule amendments for a response to this comment.

Regarding the second suggestion by the commenter to restore the original BAMM language used in the final subpart W rule (75 FR 74458) and rationale for that suggestion, please see section II.C of the preamble for the final rule amendments for a response to this comment. Also, the suggestion to allow BAMM for a maximum of one year increments is addressed in that section.

Regarding the third suggestion by the commenter to post data related to the BAMM process on the world wide web, EPA agrees with the commenter that relevant information on the BAMM process should be publically disseminated. EPA is currently reviewing ways to post relevant and appropriate information on the BAMM submissions on the Agency website.

Comment Number: EPA-HQ-OAR-2011-0417-0008-001

Organization: Sierra Club

Commenter: Joanne Spalding

Comment Excerpt Text:

Thank you for accepting these comments on behalf of the Sierra Club, Natural Resources Defense Council, Clean Air Task Force, and Earthjustice. As you know, the oil and gas production sector is among the most important sources of domestic greenhouse gas emissions. According to EPA, methane and carbon dioxide emissions from natural gas systems exceeded 317 million metric tons CO₂e in 2009.¹ Properly measuring and controlling these emissions – the lion's share of which result from methane venting --will be critical to addressing the climate crisis, particularly as natural gas production booms in shale gas regions across the country. That is why we are concerned that, in this rule, EPA proposes to allow oil and gas companies to indefinitely avoid fully implementing the provisions of Subpart W of the Mandatory Greenhouse Gas Reporting Program.

As EPA knows, the emissions from many sources within the industry are poorly understood. In particular, the Technical Support Document (TSD) for Subpart W shows that emissions factors for well venting during completions, venting during workovers, and centrifugal compressor wet seal degassing venting had long been underestimated – in many cases hundreds of times over.² Even EPA's new emissions estimates are very rough, based, in many cases, on fragmentary data. Information from the

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Subpart W program is absolutely essential to accurately characterize this major emissions source, especially as EPA moves forward with its proposed New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants from the industry.¹ Technical Support Document for Subpart W at 10; see also U.S. EPA, Inventory of U.S. Greenhouse Gas Sources and Sinks 1990-2009 at ES-5 (characterizing these emissions).² U.S. EPA, Greenhouse Gas Reporting from the Petroleum and Natural Gas Industry: Background Technical Support Document at Table 1 (2010).²

Yet, in this proposal, EPA would allow oil and gas companies to avoid accurate reporting on precisely those sources for which its information is poorest. The proposal would allow companies to apply "Best Available Monitoring Methods" (BAMM) for many sources, an ad hoc collection of methods that may even include estimates from company records, through 2012, and possibly longer. See 76 Fed. Reg. at 37,302. Notably, the sources for which EPA would automatically allow BAMM for the remainder of 2011 include those listed in sections (f)(2)-(4) of 40 C.F.R. § 98.234. See 76 Fed. Reg. at 37,306. These sections cover emissions from "[g]as well venting during well completions and workovers with hydraulic fracturing," (f)(2), reports on the "[c]umulative hours of venting" and number of blowdowns, completions, and workovers, (f)(3), and emissions from centrifugal compressor wet seal degassing, (f)(4). These are the same sectors that the TSD identified as both important and poorly characterized.

¹ Technical Support Document for Subpart W at 10; see also U.S. EPA, Inventory of U.S. Greenhouse Gas Sources and Sinks 1990-2009 at ES-5 (characterizing these emissions).

² U.S. EPA, Greenhouse Gas Reporting from the Petroleum and Natural Gas Industry: Background Technical Support Document at Table 1 (2010).

Response: For a response to the comment on the impact the use of BAMM will have on data quality, please see response to comment_EPA-HQ-OAR-2011-0417-0013-001.

Topic 4: Use of BAMM Beyond 2011

Comment Number: EPA-HQ-OAR-2011-0417-0008-002

Organization: Sierra Club

Commenter: Joanne Spalding

Comment Excerpt Text:

Even more concerning, EPA proposes to extend this deferral well into the future. Under the existing rule, EPA will consider the use of BAMM beyond 2011 only "in extreme circumstances," which are defined as including reasons justified on safety grounds, or because a "requirement [is] technically infeasible" or "counter to other local, State, or Federal regulations." 40 C.F.R. § 98.234(f)(8). Consistent with Congress's direction that EPA implement the reporting system by 2009, EPA disfavored such BAMM extensions, for which it did not "anticipate[] a need." 40 C.F.R. § 98.234(f)(8). EPA now proposes to jettison this "extreme circumstances" requirement, in favor of a more relaxed "unique or unusual circumstances" standard, and to continue accepting BAMM applications indefinitely. 76 Fed. Reg. at

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

37,306-07. Under the proposed rule, BMM would likely be used by many operators at least through mid-2012, and could continue to be used beyond that if the operator demonstrates further "unique or unusual circumstances." *Id.*

Response: In this action, EPA is finalizing amendments to the BMM provisions which would grant BMM for discrete time periods. Please see section II.B of the preamble for the final rule amendments. Please see section II.C of the preamble for the final rule amendments for responses to comments related to the selection of the BMM deadlines in this action.

For a response to the comment about amendments to BMM requirements, please see response to comment EPA-HQ-OAR-2011-0417-0013-001.

Comment Number: EPA-HQ-OAR-2011-0417-0011-002

Organization: Chesapeake Energy Corporation and the American Exploration & Production Council

Commenter: Grover R. Campbell and V. Bruck Thompson

Comment Excerpt Text:

EPA proposes to allow reporters to use BMM automatically through December 31, 2011 and to automatically obtain BMM through June 30, 2012 if a timely notice of intent (NOI) and BMM request are submitted. Assuming that EPA is able to resolve the remaining issues in the various petitions for reconsideration through the issuance of a final rule by December 2011, the June 2012 deadline will provide additional time to put a monitoring system in place. Chesapeake and AXPC support this extension.

As noted above, however, the development of such a system requires reporters at a minimum to review the revised final rule, develop most of the necessary data collection systems, conduct training and ensure accuracy in order to achieve compliance with the revised final rule. Chesapeake and AXPC are not certain that this can be accomplished in that time frame, and urge EPA to extend automatic BMM for all data inputs beyond June 2012. This will be even more important in the event that the final reconsideration rule leaves continuing uncertainty in the definition of terms.

Extending BMM automatically through June 30, 2012 will provide some relief to reporters and EPA while reconsideration is ongoing. However, in addition to the BMM extensions and revisions proposed in this rule, it is important to make further revisions to the BMM provisions to allow additional BMM post-June 30, 2012. EPA has acknowledged that BMM may be available to companies beyond June 30, 2012 if the BMM extension request submitted by March 30, 2012 is approved. 76 Fed. Reg. 37,304 ("The owners and operators who apply for BMM beyond 2011 must follow the requirements as stated in subpart W by July 1, 2012, unless EPA approves their BMM extension request (due March 30, 2012)").

There are foreseeable circumstances for which BMM will be necessary beyond June 30, 2012. Assuming EPA will resolve outstanding issues raised in the petitions for reconsideration by the end of 2011, the number of instances where BMM will be necessary beyond June 2012 may be limited. However, EPA should anticipate that there may be some situations that are beyond companies' control,

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

which would require additional BMM beyond June 2012. For example, if there is insufficient supply of necessary monitoring equipment or if there are unexpected equipment manufacturing delays that prevent a company from installing that necessary monitoring equipment until late 2012, EPA should allow that company to use BMM until the equipment can be delivered and installed. Another possibility is that the terms as finalized in the rule require further clarification by EPA, as has been the case with many of the elements of the Subpart W rule. In that case, sources will not be able to move quickly to develop systems, if they must resolve interpretation issues prior to system development.

Chesapeake and AXPC understand that EPA is seeking comments at this time only on the revisions provided in the proposed rule and not all BMM-related concerns raised in the petitions for administrative reconsideration. 76 Fed. Reg. 37,304. Therefore, Chesapeake and AXPC will reserve any further comments about the need for additional BMM post-June 30, 2012 for a future rulemaking that specifically addresses this issue.

Response: In response to the comment on reconsideration issues, the amendments finalized in this action are in part in response to petitions submitted for reconsideration on specific issues related to best available monitoring methods. EPA is considering addressing in a separate rulemaking any additional items raised in petitions for reconsideration not related to BMM.

In reference to the argument made by the commenter about the need for BMM, based on the provisions in this final action, owners and operators of facilities desiring to use BMM beyond June 30, 2011 must specify the requested amount of time in the BMM request that is submitted by March 30, 2012. Further, based on the provisions finalized in this action, if owners and operators believe that they will not be able to comply with the rule as written and would need additional time in order to get processes in place, or as the commenter noted above, to obtain monitoring equipment, they should submit a BMM form and clearly demonstrate the need for BMM.

Comment Number: EPA-HQ-OAR-2011-0417-0011-004

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

EPA has proposed a two-prong process for reporters to obtain BMM through June 30, 2012. First, reporters that need BMM in 2012 must submit an NOI to EPA by December 31, 2011. The second step is to submit a full BMM request by March 30, 2012.

Reporters anticipate that sometime in December 2011, EPA might be able to issue a final rule resolving any remaining issues raised in the various petitions for administrative reconsideration. If that timing is correct, companies expect to have a very short window of time to become familiar with the revisions EPA may make to the rule and then assess whether those changes require more or less BMM beyond 2011.

Therefore, Chesapeake and AXPC strongly support the availability of BMM automatically through June 30, 2012 for all reporters for all data parameters for all source types for each industry segment subject

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

to Subpart W. Chesapeake and AXPC further strongly support these same terms for automatic BAMM beyond June 2012, in light of the difficulties in implementing this rule already faced by reporters.

The proposed 2-step process for obtaining BAMM beyond 2011 provides a reasonable means of meeting the BAMM criteria. Given the complexity of the rule and the large number of covered sources, Chesapeake and AXPC would not be able to prepare BAMM requests by December 31, 2011. In fact, it would not be reasonable for EPA to publish key definitions and other provisions relating to the rule's applicability by December 2011, and require sources to submit at that same time, requests for BAMM. Rather, requiring sources to notify EPA of their intent to seek BAMM by December 2011 is as much as can reasonably be required of sources in that timeframe. Companies would not be able to submit BAMM requests by then because they will need time to review any revisions EPA may make to Subpart W in response to the petitions for reconsideration.

Companies will need to conduct inventories and assess what actions need to be taken to achieve compliance, particularly whether BAMM is needed and for how long. It would not be possible for companies to accurately and completely conduct all of these tasks in addition to preparing the BAMM request paperwork by December 31, 2011. Therefore, Chesapeake and AXPC do not support requiring BAMM requests be submitted by December 31, 2011.

Response: EPA carefully considered the BAMM deadlines in today's action. Please see section II.B of the final rule amendments for more information on the final provisions in this action. In addition, please see section II.C of the preamble for the final rule amendments for a response to this comment.

Topic 5: Emission Sources Covered by BAMM

Comment Number: EPA-HQ-OAR-2011-0417-0012-002

Organization: American Petroleum Institute

Commenter: Karin Ritter

Comment Excerpt Text:

Continuously Operated Equipment

API requests the following regulatory language revisions to allow the use of BAMM until the next scheduled shutdown for circumstances where compliance would require shutdown of facilities or units that operate continuously and to clarify the regulatory language. The use of BAMM for continuously operated equipment is consistent with amendments made to 40 CFR § 98.3(j)(7) for Subparts X and Y. API respectfully requests the same application of BAMM for Subpart W.

98.234(f)(8)

(ii) *Content of request.* Requests must contain the following information:

(A) A list of specific source categories and parameters for which the owner or operator is seeking use of best available monitoring methods.

(B) For each specific source for which an owner or operator is requesting use of best available monitoring methods, a description of the ~~unique or unusual~~ circumstances, such as, but not limited to,

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

data collection methods or requirements that do not meet or are inconsistent with safety regulations or practices, requirements that are technically infeasible infeasibility, requirements that conflict with specific laws or regulations, or the need to shut down process equipment or units to install monitoring equipment that conflict with each specific source for which an owner or operator is requesting use of best available monitoring methodologies.

(iii) *Approval criteria.* To obtain approval to use BAMM² after June 30, 2012, the owner or operator must demonstrate to the Administrator's satisfaction that the owner or operator faces unique or unusual circumstances such as data collection methods or requirements that do not meet or are inconsistent with safety regulations or practices, requirements that are technically infeasible infeasibility, requirements that present legal issues rendering the owner or operator them unable to meet the requirements of this subpart, or the need to shut down process equipment or units to install monitoring equipment.

Response: Please see section II.C of the preamble for the final rule amendments for a response to this comment.

Comment Number: EPA-HQ-OAR-2011-0417-0014-001

Organization: Gas Processors Association (GPA)

Commenter: Jeff Applekamp

Comment Excerpt Text:

GPA members will be directly and immediately affected by the requirements of the final Subpart W rule and look forward to continuing the on-going efforts with EPA to streamline the implementation of the Greenhouse Gas Mandatory Reporting Rule (GHGMRR). GPA appreciates EPA's attention to the issues raised in the Petition for Reconsideration (filed on February 11, 2011) including acknowledgment that BAMM provisions did not provide reporting entities with adequate time to ensure compliance with the final rule. The time period EPA had provided reporting entities to analyze their existing systems, identify parameters for which BAMM is required, and prepare and submit BAMM or BAMM extension requests was impractical and unrealistic given the significant complexities of the rule and the plethora of data parameters that must be assessed and collected for compliance.

As a result of the Proposed Rule, GPA and its members generally support the revisions to the BAMM provisions for Subpart W, and concur with the proposed action to automatically extend the applicability of BAMM for Subpart W sources to December 31, 2011. However, GPA agrees with comments from the American Petroleum Institute (API)) and offers the following regulatory language provisions to § 98.234(f)(8):

(ii) *Content of request.* Requests must contain the following information:

(A) A list of specific source categories and parameters for which the owner or operator is seeking use of best available monitoring methods.

(B) For each specific source for which an owner or operator is requesting use of best available monitoring methods, a description of the unique or unusual circumstances warranting the use of best available monitoring methods, such as, but not limited to, data collection methods or

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

requirements that do not meet or are inconsistent with safety regulations or practices, requirements that are technically infeasible infeasibility, requirements that conflict with specific laws or regulations, or the need to shut down process equipment or units to install monitoring equipment that conflict with each specific source for which an owner or operator is requesting use of best available monitoring methodologies.

(iii) *Approval criteria.* To obtain approval to use BAMM1 after June 30, 2012, the owner or operator must demonstrate to the Administrator's satisfaction that the owner or operator faces unique or unusual circumstances that make the use of the methods specified in this subpart unreasonable or impracticable, such as data collection methods or requirements that do not meet or are inconsistent with safety regulations or practices, requirements that are technically infeasible infeasibility, requirements that present legal issues rendering the owner or operator them unable to meet the requirements of this subpart, or the need to shut down process equipment or units to install monitoring equipment.

Response: For a response to this comment, please see the response to comment EPA-HQ-OAR-2011-0417-0012-002.

Comment Number: EPA-HQ-OAR-2011-0417-0009-001

Organization: Anadarko Petroleum Corporation (Anadarko)

Commenter: William W. (Bill) Grygar II

Comment Excerpt Text:

Anadarko is committed to meeting all requirements of the GHGRP and is currently involved in comprehensive compliance implementation activities. Given the tremendous resources and time required to identify, assess, collect, and assimilate all data elements required under Subpart W, Anadarko appreciates EPA's understanding of the challenges industry currently faces to comply with the GHGRP and its best efforts to efficiently prepare for reporting deadlines.

After reviewing the Proposed Rule, Anadarko generally supports the revisions to the BAMM provisions for Subpart W, and agrees with the proposed action to automatically extend the applicability of BAMM for Subpart W emission sources in §98.234(f)(2) – (f)(5) to December 31, 2011 without EPA approval. Anadarko agrees, however, with the comment submitted by the American Petroleum Institute (API), the American Exploration & Production Council (AXPC), and the Gas Processors Association (GPA) regarding "unique and unusual" circumstances that warrant the need for BAMM post-2011. Anadarko concurs that the description "unique and unusual" should be stricken from the regulatory language in order to mitigate industry concern and provide confidence that should an operator have justifiable reason why actual data may not be obtained in the timelines set forth by the rule, BAMM may be acquired to protect it from non-compliance.

Response: For a response to this comment, please see the response to EPA-HQ-OAR-2011-0417-0012-002.

Comment Number: EPA-HQ-OAR-2011-0417-0011-005

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

EPA clarified in the proposed rule "the circumstances under which BMM may be requested beyond 2011 are not limited to concerns about safety, technical infeasibility or instances where meeting monitoring requirements under subpart W would conflict with specific laws or regulations. Other unique or unusual circumstances may be appropriate for requesting BMM, if properly demonstrated." 76 Fed. Reg. 37,304. Chesapeake and AXPC support BMM availability for a wide variety of circumstances. BMM should be available, for example, if a facility complying with the monitoring requirement would require the company to shut down the facility.

The scope of circumstances in which BMM will be allowed also must be broad because there are many flaws in the final rule that still need to be resolved. For example, the definition of "onshore natural gas processing" (§ 98.230) needs to be revised to eliminate ambiguity between onshore production and onshore natural gas processing. Without understanding how to classify facilities, reporters do not know which reporting obligations apply at a facility. Until that issue is resolved, reporters cannot rationally be obligated to take action at facilities that they may later learn are not subject to a compliance obligation.

Another problematic term in the final rule is "well testing," which is undefined. Without knowing what flaring and venting emissions are supposed to be reported under "well testing" (§ 98.233(l)) versus completion emissions (§§ 98.233(g), (h)) or "associated gas venting and flaring emissions not in conjunction with well testing" (§ 98.233(l)), companies do not know what data to collect and during what activities those emissions should be measured. Similarly, the term "field" is not sufficiently defined in the final rule to enable reporters to know where to collect samples that are representative of a field or how to report data on a field-level because some wells are not in defined fields. It is also problematic that the final rule does not provide a workable method to determine whether the bleed rate of a pneumatic device is "high" or "low." Facilities cannot begin counting these devices until a methodology is provided by EPA to distinguish between high and low bleed-rates.

BMM must be available for reporting any data elements that use or are associated with these and any other undefined or unclear terms, because companies will not have set up permanent systems where compliance obligations are as yet to be defined. Because EPA has acknowledged that certain terms in the final rule make it impossible for sources to determine the rule's applicability to the emission sources, EPA must provide a reasonable alternative method of compliance for sources.

Response: Regarding the use of BMM for shutdowns, please see the response to EPA-HQ-OAR-2011-0417-0012-002.

In regard to the commenter's concern about specific rule provisions not related to BMM, please see response to comment EPA-HQ-OAR-2011-0417-0011-002.

Comment Number: EPA-HQ-OAR-2011-0417-0014-003

Organization: Gas Processors Association (GPA)

Commenter: Jeff Applekamp

Comment Excerpt Text:

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Lastly, GPA is concerned with inconsistency in the language of §§ 98.234(f)(2) and (3) as compared to the comparable language in §§ 98.234(f)(4) and (5)(iv). The former provisions include a requirement that BMM is available for data "that cannot be reasonably obtained according to the monitoring and QA/QC requirements of this subpart." Similar language does not appear in the latter two provisions. As we have discussed with the Agency at length, we believe that BMM should be available for all source types for all of calendar 2011 and that the availability of BMM should not be limited to sources where data cannot reasonably be obtained using the methods specified in the rule. The process of applying the "cannot reasonably be obtained" criteria would be difficult and time consuming and could cause affected sources to use BMM for certain source types in 2011 while applying the specified methods to other sources. Imposing such a burden defeats the purpose of extending BMM through 2011. As a result, we recommend that the phrase "that cannot reasonably be measured according to the monitoring and QA/QC requirements of this subpart" should be deleted from §§ 98.234(f)(2) and (3).

Response: EPA thanks the commenter for pointing out the inconsistency. EPA's intention for all subpart W emission sources is to allow BMM through 2011 only in cases when data could not be reasonably obtained. For 2011, all subpart W emission source data that can be reasonably obtained should be measured following the provisions as delineated in the rule.

EPA has clarified 40 CFR 98.234(f)(4) and 98.234(f)(5)(iv) accordingly. Please see section II.B of the final rule amendments for more information on the final provisions related to this comment.

Comment Number: EPA-HQ-OAR-2011-0417-0009-002

Organization: Anadarko Petroleum Corporation (Anadarko)

Commenter: William W. (Bill) Grygar II

Comment Excerpt Text:

Furthermore, Anadarko also agrees with GPA's comment regarding inconsistency in the regulatory language of § 98.234(f)(2)-(3) compared to § 98.234(f)(4) and §98.234(f)(5)(iv), specifically that the former provisions include a requirement that BMM is available for data "that cannot be reasonably obtained." We concur with GPA that this language defeats the purpose of extending BMM to all emission sources through 2011 and it should be deleted from the regulatory text to mitigate further burden associated with assessing and applying BMM.

Response: For a response to this comment, please see the response to EPA-HQ-OAR-2011-0417-0014-003.

Topic 6: Use of BMM for Special Circumstances

Comment Number: EPA-HQ-OAR-2011-0417-0012-003

Organization: American Petroleum Institute

Commenter: Karin Ritter

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Comment Excerpt Text:

Owners or operators of onshore petroleum and natural gas production frequently acquire and divest equipment and operations. Integrating these new assets into the mandatory GHG reporting program, particularly for those which did not previously meet the reporting threshold, will require time. API requests specific language regarding the use of BMM for these circumstances, rather than the vague application of "unique or unusual circumstances." In addition, due to the frequency of acquisitions that can occur throughout a calendar year, API requests the ability to "accumulate" all acquired assets for a given year and then be allowed to apply BMM up to 6-months past the current year end. This will prevent the owner or operator from tracking numerous purchase dates and varying BMM cycles that would result.

The following language is proposed to provide more certainty with respect to the use of BMM for acquired equipment or operations:

"For onshore petroleum and natural gas production, assets acquired by an affected entity in any calendar year shall be allowed to use best available monitoring methods until the end of the calendar year end in which they were acquired without applying for best available monitoring methods. Such assets may continue to use best available monitoring methods for up to six months of the calendar year following acquisition. The owner or operator may request to use best available monitoring methods for an additional six months, as needed, in accordance with the provisions of 98.234(f)(8)(ii) and (iii)."

Response: Please see section II.C of the preamble for the final rule amendments for a response to this comment.

Topic 7: Other Comments Reviewed

Comment Number: EPA-HQ-OAR-2011-0417-0011-001

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

The final Subpart W rule is severely flawed in several important respects. In its final form, the Subpart W Rule contains elements that prevent reporters from being able to discern what is a reportable emission and how to measure it. Being unable to fulfill the requirements stated in the final rule may result in a source being out of compliance with mandatory federal requirements. Failure to comply with federal law is of such serious consequence that covered entities do not risk noncompliance. Therefore, on January 31, 2011, Chesapeake and AXPC filed a petition for reconsideration with EPA and a petition for judicial review in the D.C. Circuit (case no. 11- 1025) in order to obtain the necessary clarifications to

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

comply with Subpart W. Several other parties also filed petitions for reconsideration and petitions for review.

On April 25, 2011, EPA granted reconsideration on the issue of the time period during which owners and operators of certain sources could automatically use BMM without obtaining approval from the Administrator. 76 Fed. Reg. 22,825 (Apr. 25, 2011).

The Subpart W Rule imposes significant new legal obligations on covered sources to measure, monitor and report emissions of GHGs. As EPA's description of the source category suggests – "equipment leaks and vented GHG emissions" – the overall source category is made up of hundreds of thousands of sources throughout the oil and gas sector. Failure to discern and properly measure what is a reportable emission as specified in the final rule may result in a source being out of compliance with mandatory federal requirements. Failure to comply with federal law is of such serious consequence that covered entities do not risk noncompliance. However, in its final form, the Subpart W Rule contains elements that will force covered sources to do precisely that.

EPA recognized in finalizing the rule, that "for certain industry segments, some reporters would need additional time to comply with the monitoring and QA/QC requirements. . ." 75 Fed. Reg. 74458, 74471 (November 30, 2010). The final rule provides the use of best available monitoring methods (BMM) as a means for sources to comply with the rule as they develop the necessary internal processes and technology to adapt their operations to the new regulatory obligations. In addition to the need for BMM as a means to comply under ordinary circumstances, the final rule included many definitions and unclear provisions that made it impossible to determine whether and how the rule applies to some sources. EPA is in the process of addressing key definitional and applicability issues, which have been raised in petitions for reconsideration and review. Until EPA publishes final clarifications and/or revisions of key terms and requirements, BMM is absolutely critical for sources to comply with the rule. Even after EPA publishes final clarifications, sources will still need a period of transition in order to apply the new-final rule to their operations, assess the means of compliance, and develop systems to monitor, gather data and report that data.

As discussed further below, Chesapeake and AXPC support most aspects of the proposed rule extending BMM. However, as EPA acknowledged in the preamble to this proposed rule, the petitions for reconsideration raised additional concerns that are not addressed by this proposal. 76 Fed. Reg. 37,304. Chesapeake and AXPC's comments on this proposed rule are not intended to provide a release of any other claims raised in their petition for reconsideration or pending judicial challenge to the final Subpart W rule.

Reporters Need BMM to be Extended to Provide Compliance Coverage Due to the Ongoing Reconsideration Process.

EPA has noted that it believes that extending the automatic BMM time period to December 31, 2011 is appropriate "to provide sufficient time for companies to collect, prepare and submit data to EPA during the initial year of reporting." 76 Fed. Reg. 37,304. Chesapeake and AXPC agree that facilities will need time to develop data collection systems and monitoring plans, conduct training, and ensure accuracy before they can comply with the rule. Data collection tools will need to be created and data collection processes must be established to gather data.

Much of the data that must be reported under the rule is not currently gathered and the sheer abundance of data required prevents it from feasibly being managed manually. EPA's Petroleum and

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Natural Gas Systems Monitoring Checklist for Onshore Petroleum and Natural Gas Production (Nov. 2010) lists 294 data elements that must be collected. For example, various data must be monitored and recorded for gas well venting during well completions with hydraulic fracturing. Companies have never before collected this data to determine emissions associated with well completions. Computer codes must be written to direct the systems to record certain data at the specified times (e.g., when venting emissions). The code must be tested for accuracy. Recordkeeping tools – at the bare minimum, electronic spreadsheets or paper forms, or alternatively more sophisticated electronic tools – will need to be developed. Workers in the field will need to be trained to ensure they comply with new protocols delineating their new data collection responsibilities. These data gathering and monitoring obligations constitute a fundamental change to field operations and companies will need significant time to ensure that personnel understand what data to collect, at what frequency, the importance of accuracy, and how to record these activities.

Example of Difficulty Developing New Compliance Systems

It can be difficult to develop processes for monitoring data or activities that have never before been subject to federal or state mandated reporting. For example, Subpart W requires reporting emissions from dump valves associated with onshore production storage tanks. The final rule requires knowing how long a dump valve has been stuck open. It is not industry practice to require field technicians to maintain checklists indicating whether every dump valve at every site was operating properly. Rather, as operational problems arise, corrections are made in the field as a matter of routine business practices.

The present text imposes a very large manual recordkeeping obligation for industry. One AXPC company has determined that it has over 6,700 separators. Another company has approximately 8,000 separators. Each separator has one or two dump valves. Given the thousands of valves that a company may be responsible for monitoring, to comply with the requirement for the onshore production sector to record the status of dump valves, companies will need time to develop a recordkeeping system to track dump valves. Attempting to implement such a system will prove to be difficult. Forms will need to be developed and all field technicians will need to be trained to comply with the new expectation of regularly recording whether a dump valve was operating properly during each site visit and whenever a dump valve is repaired after having been found stuck open.

One AXPC member has reviewed data for several of its fields and estimates that dump valves get stuck open approximately 1% of the time in a given year. Despite the infrequency of its dump valves getting stuck open, this operator would still need to develop a system to manage tens of thousands of forms documenting that dump valves are operating properly 99% of the time. A system would need to be developed to retain tens of thousands of forms, which would be filled out at varying frequencies -- every few days for wells that are visited regularly and up to every few weeks for others. All of these forms would need to be reviewed on a regular basis (at least weekly or monthly) by the appropriate personnel to:

- assess whether any valves had been stuck open,
- if so, review operational records/maintenance records/production data preceding the discovery of the stuck valve,
- calculate the emissions associated with the stuck valve, and
- document the emissions in a format that will facilitate annual reporting.

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Gathering and timely reporting of accurate data will need to be handled by an automated or electronic recordkeeping process that will minimize the extensive manual effort to monitor and retain records to report the minor emissions from stuck dump valves.

Contractual Relationships with Third-Party Service Providers Increases the Need for Sufficient BAMM Availability

The complexities of complying without clear regulatory requirements are even greater when compliance also involves third-party service providers on contract to the regulated entity. For activities performed by third-party service providers, contracts must be re-written to bind the third-party service providers to perform these new responsibilities. These new contracts will need to be reviewed by the service provider's legal department, which could lead to renegotiation of the terms of the service contract and will require the resolution of any additional legal issues. The revised contract can only be executed and the new responsibilities implemented in the field after all of these steps have been taken.

The BAMM extension should be long enough to accommodate a period to assess *whether* BAMM is needed, in addition to *what* measures will need to be undertaken.

Chesapeake and AXPC agree with EPA's statement that it may be impossible to determine "in advance the exact nature of the BAMM that would be needed" at each well-site. 76 Fed. Reg. 37,303. As noted above, EPA requires the collection of 294 distinct data elements. Some onshore production companies own over 20,000 wells, and thereby potentially obligated to record and manage over 6 million data elements. Equipment varies from well to well. Companies will need to invest a significant amount of time and resources to inventory the equipment and monitoring devices present at each well and determine where modifications or additional equipment may be necessary to comply with Subpart W.

As further discussed in Section 5 below, there is significant ambiguity in the existing Subpart W rule. Until EPA clearly defines the now-ambiguous terms in Subpart W provisions, companies cannot determine what data needs to be collected, at which facilities that data must be collected and how to collect that data. It is not rational for regulated sources to spend millions of dollars to purchase new equipment, install that equipment, develop new data collection systems, and train personnel to comply with reporting and measurement obligations that have not been fully defined by EPA. This risks mis-applications of resources, should it turn out that the equipment is not needed to comply. While industry has been moving forward to achieve compliance with the portions of the rule that are clear, progress cannot be made on obligations that are not clear until the issues raised in the petitions for reconsideration are resolved through a final rulemaking that revises Subpart W.

Companies Will Be Responsible for Reporting an Unprecedented Amount of Data

Data must be recorded electronically given the amount of data being collected. As noted above, EPA indicates 294 data elements may need to be collected at each onshore production facility. Reporters will need to assess whether all 294 data elements apply at each facility. A reporter that has, for example, 24,000 wells will be responsible for accurately reporting millions of data elements to EPA. Manual entry of millions of data elements into EPA's electronic data reporting tool (e-GGRT), a spreadsheet or database would introduce an unnecessary element of human error into the reporting process and would be unmanageable with respect to the amount of time necessary to upload the data. Allowing reporters sufficient time to create electronic data collection systems is not a luxury for the reporter's convenience, but a necessity to ensure timely submission of accurate reports.

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

Response: EPA thanks the commenter for their submission. For a response to this comment please see response to comment EPA-HQ-OAR-2011-0417-0011-002.

Comment Number: EPA-HQ-OAR-2011-0417-0011-003

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

This BAMM Extension is Appropriate Because Reporters Were Unable to Comment on the Duration of BAMM.

As EPA acknowledges, BAMM provisions were not included in the proposed Subpart W rule, but were included in the final rule only. 76 Fed. Reg. 37,303. Therefore, reporters did not have the opportunity to comment on the BAMM timelines and whether those timelines were feasible. *Id.* If reporters had been provided the opportunity to comment on the BAMM timelines, Chesapeake and AXPC would have submitted information during the comment period to substantiate the need for a longer duration to use BAMM in order to develop processes to gather data, record data, purchase and install new equipment, and train personnel.

Response: On April 25, 2011, EPA granted reconsideration on the issue of the time period during which owners or operators of certain sources could automatically use BAMM without obtaining approval from the Administrator, 76 Fed. Reg. 22,825 (Apr. 25, 2011) and is now taking final action on that issue.

Comment Number: EPA-HQ-OAR-2011-0417-0011-006

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

Suggested Revisions to 40 C.F.R. § 98.234(f)(8)(iii) (Requests for Extension of the Use of BAMM Beyond 2011, Approval Criteria).

EPA has proposed modifying 40 C.F.R. § 98.234(f)(i)(iii) to state the following:

Approval criteria. To obtain approval to use BAMM after June 30, 2012, the owner or operator must demonstrate to the Administrator's satisfaction that the owner or operator faces unique or unusual circumstances such as data collection methods that do not meet safety regulations, technical infeasibility, or legal issues rendering them unable to meet the requirements of this subpart.

Chesapeake and AXPC believe that the inclusion of the phrase "after June 30, 2012" was intended to clarify that the approval criteria do not apply to situations where BAMM would be granted automatically. To make this point even clearer, we suggest that EPA modify this part of the rule as follows:

Approval criteria. To obtain approval to use BAMM other than BAMM that is

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

allowed automatically through ~~after~~ June 30, 2012, the owner or operator must demonstrate to the Administrator's satisfaction that the owner or operator faces unique or unusual circumstances such as data collection methods that do not meet safety regulations, technical infeasibility, or legal issues rendering them unable to meet the requirements of this subpart.

Making this revision would clarify that a party that mistakenly did not submit an NOI by the December 31, 2011 deadline but that submits a BMM request prior to the March 30, 2012 deadline would not be subject to the approval criteria in 40 C.F.R. § 98.234(f)(8)(iii) although the NOI deadline was not met. EPA should provide further clarity in the rule and preamble to address this unintentional but foreseeable circumstance.

Response: EPA disagrees that the suggested language is necessary for inclusion in the final rule 40 C.F.R. § 98.234(f)(8)(iii). All BMM requests that must be approved by EPA, including BMM requests for the period through June 30, 2012, must be completed in accordance with the "content of request" and the "approval criteria" sections of the final rule, 40 C.F.R. § 98.234(f)(8)(ii) and (iii), and must demonstrate to the Administrator's satisfaction that the owner or operator faces unique or unusual circumstances such as data collection methods that do not meet safety regulations, technical infeasibility, or legal issues rendering them unable to meet the requirements of this subpart.

Comment Number: EPA-HQ-OAR-2011-0417-0011-007

Organization: Chesapeake Energy Corporation (Chesapeake) and the American Exploration & Production Council (AXPC)

Commenter: Grover R. Campbell (Chesapeake) and V. Bruck Thompson (AXPC)

Comment Excerpt Text:

EPA stated in the preamble to the proposed BMM extension rule that 40 C.F.R. § 98.234(f)(8) is intended to be used by companies that have known issues that require BMM. 76 Fed. Reg. 37,304. It is not intended to be used for "protective filings" for hypothetical situations in the event that the company needs BMM in the future. *Id.*

Chesapeake and AXPC agree that 40 C.F.R. § 98.234(f)(8) should not be used by companies for facilities for which they think they need BMM at a future date after the deadlines in Subpart W have passed. Petitions for BMM filed beyond the deadlines can be reviewed by EPA under 40 C.F.R. § 98.234(f)(1). However, such petitions should be reviewed to determine whether there is "good cause" for requesting BMM rather than requiring a demonstration of "extreme or unusual circumstances." The complexity of the rule and the breadth of its application justify broader discretion in allowing BMM than this text would appear to provide. This is especially true because it is unclear what EPA would classify "extreme or unusual circumstances."

BMM should be available for companies, for example, that do not currently exceed the 25,000 tpy reporting threshold in a basin, but that because of the acquisition of additional assets in that basin will be required to report for the first time under Subpart W after 2012. Under this type of scenario, BMM will be necessary so that the company can develop data collection systems and monitoring plans, conduct training, and ensure accuracy before they are required to comply with the specific monitoring methods provided in rule. Other circumstances are imaginable which may not appear to be "extreme or

Mandatory Reporting of Greenhouse Gases - Petroleum and Natural Gas Systems, Revisions to Best Available Monitoring Method Provisions: EPA's Response to Public Comments

unusual," but which nevertheless may present an insurmountable compliance barrier for companies grappling with these far-reaching obligations.

Response: For a response to the commenters argument about changing the language from "extreme or unusual" to instead reference "good cause" please see section II.C of the preamble for the final rule amendments for a response to this comment.

In response to the commenter's argument that new companies that exceed the 25,000 tpy reporting threshold in a basin will need BMM, please see section II.C of the preamble for the final rule amendments.

In this action, EPA has revised 40 CFR 98.234(f)(1) by stating that owners and operators who submit a BMM request after the deadlines finalized in this action must demonstrate unique or unusual circumstances unforeseen at the time of the associated BMM deadline specified in the rule. In this provision, EPA clarified that this provision is to be used for "unforeseen" circumstances to clarify that the review and approval of late BMM request submissions is for cases of unforeseen circumstances, such as a natural disaster or fire, or some other circumstance not only beyond a reporter's control, but also unforeseen by the reporter, such that the reporter did not have the time to submit either an NOI or BMM extension request by the submission deadline.

Comment Number: EPA-HQ-OAR-2011-0417-0015-001

Organization: United States Department of the Interior

Commenter: Willie R. Taylor

Comment Excerpt Text:

The U.S. Department of the Interior has reviewed the U.S. Environmental Protection Agency's (EPA) Proposed Rulemaking for Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems: Revisions to Best Available Monitoring Method Provisions. We offer the following comment developed by our Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).

EPA's Greenhouse Gas Reporting Rule Subpart W allows operators offshore to report using Gulfwide Offshore Activities Data System (GOADS). We request that under the heading of "I. General Information A. Does this information apply to me?", add the following sentence. "While this rule does not apply offshore, offshore operations should continue to report on OCS facilities using GOADS."

Response: EPA disagrees that this final rule does not apply to facilities reporting under the offshore petroleum and natural gas production industry segment. Offshore production facilities who report under subpart W may apply for BMM under 40 CFR 98.234(f)(5)(iv) if needed. However, EPA has clarified in the preamble at the commenters' suggestion that any obligation to report under 30 CFR 250.302 through 304 as applicable by owners or operators of facilities reporting under the offshore petroleum and natural gas production industry segment of subpart W is not affected should they choose to use BMM.